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The Impact of Parent Inclusion In Mindfulness Early Interventions For Children With Sub-Clinical Anxiety

Hestad, Gillian

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The Impact of Parent Inclusion In Mindfulness Early Interventions
For Children With Sub-Clinical Anxiety

by

Gillian Hestad

A THESIS

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Abstract

Parents play a large role in the socialization of children and parent wellbeing has the capacity to influence children's attachment security, self-regulation, and overall mental wellbeing. The most common mental illnesses impacting children in Canada are anxiety related. The benefits of including parents in early interventions for children with symptoms of anxiety, fears, and worries have not been studied. It has been theorized, though not empirically tested, that parent inclusion in mindfulness interventions may enhance therapeutic outcomes, further decreasing children's anxiety symptoms. The present study investigated this assertion using two groups, one including 6 parent-child dyads and another with 10 children participating without a parent present (n=16). The paper presents mixed methods research findings that explore the benefits of parent inclusion in mindfulness early-interventions for children. Implications and directions for future research are discussed.

Keywords:

Anxiety Symptoms · Child · Parent · Attachment · Mindfulness
Group Work · Social Work · Prevention

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Dedication

To my husband Matt for his untiring support and encouragement.

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List of Abbreviations

Abbreviations

MBSR
CASW
SS
AAI
RFS
MBCT
IAA
CBCL
STAIC
TEA-Ch
PC
CO
STAI
IM-P
IM-P APCA

Definition

Mindfulness Based Stress Reduction
Canadian Association of Social Workers
Strange Situation Assessment
Adult Attachment Interview
Reflective Functioning Scale
Mindfulness Based Cognitive Therapy
Intention, Attention, Attitude Model
Child Behaviour Checklist
State Trait Anxiety Inventory for Children
Test of Everyday Attention for Children
Parent-Child Group
Child-Only Group
State Trait Anxiety Inventory for Adults
Interpersonal Mindfulness in Parenting Scale
IM-P: Awareness and Present-Centered Attention
Subscale

Epigraph

Instructions for living a life:
Pay attention.
Be astonished.
Tell about it.

Mary Oliver (2008), excerpt from *Sometimes*

Chapter 1: Introduction

The intent of this study was to investigate the benefits of parent inclusion in mindfulness early-interventions for children struggling with subclinical anxiety symptoms. While anxiety disorders are the most common mental illnesses impacting children in Canada (Crosby Budinger, Drazdowski, & Ginsburg, 2013; Waddell, Godderis, Hua, McEwan, & Wong, 2004; Waddell, McEwan, Shepherd, Offord, & Hua, 2005; Waddell, Offord, Shepherd, Hua, & McEwan, 2002), studies suggest that providing interventions for children with anxiety disorders is not sufficient, as there are great benefits to helping professionals intervening with children sooner through health promotion, illness prevention, and early intervention work regarding fears and anxiety symptoms in normative populations (Waddell et al., 2005; Waddell et al., 2002).

As parents play a primary role in children's socialization and environment, parent inclusion in interventions is proposed to have the capability to enhance children's treatment outcomes (Burke, 2010). Given the broadly documented relationship between parenting behaviours and child anxiety outcomes (Sawyer Cohen & Semple, 2010), gaining a clearer understanding of the benefits of parent participation in early interventions for childhood anxiety is of significant importance. Anxiety symptoms are known to include both genetic and environmental facets, yet very little research has been done regarding the implication of dyadic parent-child group interventions (Crosby Budinger et al., 2013). The current study drew on a foundation in attachment theory and literature regarding mindfulness, i.e. the cultivating of the capacity to intentionally pay attention to the present moment without judgment (Kabat-Zinn, 1990).

Fear and Anxiety Symptoms in Non-Clinical Populations

Fears and anxiety symptoms are a normal part of child development, common to most children, and are typically short lived in duration and dissipate over time. Muris (2007) noted that "initially, this has led many child psychologists to the faulty conclusion that childhood fear and anxiety should not be taken too seriously, and as a result these phenomena received little research attention" (p. 14). The study of anxiety symptoms and fears in non-clinical populations has only recently begun to make progress and garner attention (Muris, 2007; Muris, Meesters, Merckelbach, Sermon, & Zwakhalen, 1998). Muris suggested that the views of researchers concerning the concepts of anxiety and fears as mild or harmless have shifted as studies have shown that "fear and anxiety phenomena reflect serious problems in a fair proportion of the youths" (p. 14).

While the emotions of fear and anxiety are thought to be related they are two separate definable constructs, differing in function and manifestation (Muris, 2007). Muris suggested that fear is “characterized by autonomic arousal, and at a behavioral level fight-flight reactions... [while anxiety] is typified by tension, apprehension, and worry” (p. 2).

Fear is defined as “an emotional reaction to a specific, perceived danger, to a threat that is identifiable” (Rachman, 2004, p. 3). Unlike anxiety, fear is an emergency reaction to a specific focus and tends to be short-lived in nature. The function of fear is to alert the individual of danger and prepare them for action (Muris, 2007). Responses to threat (the fight or flight response) are achieved through the activation of the sympathetic nervous system. While the emotion of fear occurs when an imminent threat is perceived, anxiety arises without the presence of danger.

There is no universal definition of anxiety and the usage of the term is contentious. Rachman (2004) defines anxiety as “the tense, unsettling anticipation of a threatening but vague event; a feeling of uneasy suspense” (p. 3). Physical manifestations of the emotion of anxiety may include: “abdominal pain, a dry mouth, feeling faint, frequent emptying of the bowels, frequent urination, nausea, quick shallow breathing (which can lead to hyperventilation), rapid heartbeat, sweating, [and] tense muscles” (Csoti, 2004, p. 40).

Anxiety is not a completely debilitating or harmful emotion. It has been particularly adaptive over the course of history to ensure the safety and survival of the human species. Csoti (2004) suggested that the emotion of anxiety still has many benefits for children today. Mild anxiety symptoms can encourage children to achieve their potential by instilling a threat of failure and the motivation to triumph. The stress hormone adrenalin may “help the child perform well in tests, firing her brain to work at top speed and it can help when she is competing on a physical level, by readying her muscles for action using her ‘fight or flight’ response” (p. 39).

Fear and anxiety symptoms are both components of normal child development and they follow a developmental course. The predictable course of normal fear and anxiety progression in childhood, known as the “ontogenetic parade”, is largely related to the child’s cognitive capabilities (Muris, 2007). As children age and progress in cognitive development, anxieties and fears also shift in content. Muris stated “in the course of their life, children are confronted with various developmental issues that have to be resolved and that largely determine the content of their fears

and anxiety” (2007, p.9). A summary of normal fears and anxieties by age and developmental task is provided (see Table 1).

Table 1: Normal Fears and Anxieties by Age and Developmental Issue

Age	Developmental Issues	Fear and Anxiety
0 – 6 months	Biological regulation	Fear of loud noises Fear of loss of support
6 – 18 months	Object permanence Formation of attachment relationship	Fear of strangers Separation anxiety
2 – 3 years	Exploration of external world Magical thinking	Fear of animals Fear of imaginary creatures
3 – 6 years	Autonomy Self-control	Fear of the dark Fear of storms Fear of loss of caregivers
6 – 10 years	School adjustment Concrete operations: inference of cause-effect relations and anticipation of dangerous events	Fear of school Worry Concerns about bodily injury and physical danger
10 – 12 years	Social understanding Friendship	Social concerns
13 – 18 years	Identity Formal operations: catastrophizing about physical symptoms Sexual relationships Physical changes	Social anxiety Panic

(Muris, 2007, p. 9)

Severity of fear and anxiety symptoms.

While fear and anxiety are normal phenomena experienced by children and youth, they may also become maladaptive when a child engages in fear or worry on a regular basis, engages in avoidant behaviour, and/or when the severity of the fear or anxiety symptoms interferes with their daily lives (Muris, 2007). Muris suggested that while fear and anxiety symptoms can be adaptive and fleeting, they may also be “seriously disturbing and distressing” (p. 13).

Outcomes of persistently high levels of fear and anxiety symptoms are undesirable (Muris, 2007). Higher levels of anxiety symptoms in non-clinical youth have been shown to be associated with lowered levels of school performance, lowered self-esteem, and “heightened levels of depression, difficulties in establishing social and romantic relationships, and in some cases alcohol abuse” (p. 13). In addition, studies have shown that children or youths’ previous experiences of high levels of fear and anxiety symptoms increase their risk for experiencing high levels of anxiety

symptoms in the future. Muris noted that high levels of fear and anxiety symptoms are generally stable, suggesting that children and youth may experience long-term difficulties. When severe fear and anxiety symptoms are not dealt with, the child's anxiety symptoms can become elevated to a clinically diagnosable disorder and may become habitually out of control.

It is estimated that 30% of children exhibit below clinical, yet nevertheless excessive, levels of worry (Muris et al., 1998). This population, those experiencing distress below clinically diagnosable levels, are sometimes described as normative or subclinical. In the social sciences symptoms of mental illness are deemed to exist on a continuum of severity, ranging from normative to subclinical to clinically elevated levels of distress (Qualls & Kasl-Godley, 2011). *Subclinical* is a medical term meaning “without clinical manifestations... before symptoms and signs become apparent or detectable by clinical examination” (Dorland, 2011, ¶ 1). Subclinical symptoms differ from normative responses in that they influence the individuals emotional, social or cognitive functioning, but to a lesser severity than clinical elevated levels. That being said, the range of impairment of functioning may be broad and falls on a spectrum.

McDermott and Weiss (1995) argued that the viewpoint of the children's mental health spectrum is often skewed to near-dichotomization. The authors asserted that “it is apparent that children who sustain no gross psychopathology are commonly regarded as *normal* and as requiring neither immediate nor future attention of mental health specialists... Those who do receive services tend to be the most seriously disturbed” (p. 162). The authors stated that while treating children with profound clinical concerns is of great importance, it is both cost effective and prognostic to provide both health promotion and early intervention programming to children experiencing normative symptoms.

It is suggested that mental health professionals must actively promote healthy development for all Canadian children through the provision of health promotion, illness prevention, and early intervention services (Waddell et al., 2005). It is recommended that in order to prevent the distress and possible long-term implication of maladaptive fear and anxiety symptoms that early intervention work be included as a focus of children's mental health policy and school-based wellness, incorporating both universal and targeted programming in non-clinical settings.

Gaining a clear picture of the impact that parent inclusion in school-based interventions can play in enhancing children's mental health outcomes is imperative in the development of future preventative programming. This is a recommended area of study due to the limited research regarding the effectiveness of parent interventions in reducing child anxiety symptoms (Waddell et al., 2004). Parents play a large role in the socialization of children and parent psychopathology has the capacity to severely affect the child's attachment security, ability to self-regulate, and overall emotional wellbeing (Sawyer Cohen & Semple, 2010).

Parent participation and therapeutic outcomes.

There is limited research concerning the use of parent interventions to influence therapeutic or preventative outcomes for children. Very little research has been done regarding parent inclusion in mindfulness interventions for children. That being said, many mindfulness researchers have suggested that parent inclusion may be of significant benefit. Lee, Semple, Rosa, and Miller (2008) noted that family involvement in interventions might enhance treatment outcomes for children, as they are rooted in family structures. A meta-analysis by Burke (2010) stated:

The embedded nature of children in family and school systems suggests the inclusion of caregivers and/or teachers, so they are informed, and able to support home (or school) practice, at the very least, whereas concurrent or co-participation may elicit interaction effects, with the potential to strengthen treatment efficacy. (p. 143)

This sentiment was furthered by Napoli, Krech, and Holley (2005) who state that if parents and school personnel practice mindfulness they can transfer these tools to the children which can be instrumental in reducing behavior problems, test anxiety, performance anxiety, improving self confidence by reducing feelings of helplessness, and improving self image by experiencing a sense of competence in problem solving. (p. 115)

The parent and child relationship may not only provide a useful avenue for mitigating children's meaningful change but also a powerful component of the intensification or alleviation of childhood anxiety symptoms (Brumariu, Kerns, & Seibert, 2012). Due to the prevalence and potential harm caused by maladaptive anxiety symptoms in childhood, and policy recommendations regarding the provision of early intervention and prevention work, research regarding the implications of parent inclusion in anxiety interventions would serve to fill a gap in the literature.

The Historic Denigration of Childhood

Researching and working with children in an empowering and respectful manner requires an understanding of historic societal ideologies and discourses related to children and childishness. This section explores the history of the denigration of childhood and its relation to social work.

During the nineteenth century children were viewed as symbols of purity in an increasingly capitalistic world (Neustadter, 1993). Poets and authors revered children for their uninhibited emotions and creativity. By the twentieth century, due in part to industrialization and urbanization, childhood had begun to represent a threat to progress. Mainstream society showed dismay at childhood, childishness, and child-like mentalities. This shift in discourse valued adult cognition and urged those seen as childish to *grow up*. This ideology continues to the present day. Society often views characteristics of childhood as detrimental to progress: an unacceptable state for the modern world. Children are viewed as weak, as opposed to pure, and disparaged as incomplete, harmful, and threatening to self and society. Neustadter stated that our society sees the child as “an unformed person who through socialization, education, reason and self-control, may be made into a civilized adult” (p. 311).

Both psychology and social work have histories in the protection of at-risk children and the facilitation of interventions for children’s concerns (Neustadter, 1993). In the early twentieth century the forthcoming field of psychology viewed childhood as a primitive form that one must outgrow in order to gain rational thought. In its infancy, the field of psychology unfairly measured childhood against adulthood and determined the two states were incompatible, portraying childhood as categorically inferior.

Freud viewed the child as a primitive, undeveloped form of being and suggested that childhood was meant to be transcended. He stated, “child psychology, in my opinion, is destined to render the same services to the psychology of adults as a study of the structure or development of the lower animals renders to the investigation of the structure of the higher orders of animals” (Freud, 1913, p. 107). Later, Jean Piaget distinguished between the cognitive abilities of children and adults. He perceived children as possessing an innate weakness. From Piaget’s point of view, “childhood could only repeat and replicate, it could never originate” (Neustadter, 1993, p. 304). He asserted that for mature thought to take hold one must relinquish child-like thinking.

On May 28, 1990, Canada ratified the *UN Convention on the Rights of the Child*. Article 12 of the convention stated:

States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child. (United Nations Centre for Human Rights, 1993, article 12)

Children in Canada have the right to participation and agency in mental health interventions and treatments pertaining to them (LeFrançois, 2008). Unfortunately, the convention left much terminology to be interpreted and subjectively determined by adults. LeFrançois viewed the child-clients of mental health professionals as having two distinct sets of barriers, “not only are individuals considered logically incompetent due to their status as children, but this assumption is reinforced by their status as psychiatric patients” (p. 212). In counselling sessions adult patients are considered competent unless there is evidence to the contrary. In contrast, children are often categorically deemed incompetent. It is infrequent that children’s rights to full participation and decision-making in counselling are upheld; Coppock stated that “it is virtually impossible to envisage a situation where a child or young person with a negative mental health label could ever refuse treatment” (as cited in LeFrançois, 2008, p. 212).

Buxton (2010) emphasized that mental health professionals’ beliefs regarding childhood influence how assessments, interventions, and services are delivered. The medical model places children in a submissive and disenfranchised role (LeFrançois, 2008). Adults hold authority, the ability to disregard children’s views and deny them consideration in decision-making. Decisions are often made on their behalf, or the child’s choice may be vetoed, with the explanation that the decision is in the best interest of the child – furthering the conventional view of children as unable to make adequate decisions or think rationally. Children are often coerced into making choices they perceive as unpleasant, for example attending groups seen as unbeneficial under threat of altered medication, suspension/discharge from programming, or denial of privileges. A study by LeFrancois (2008) found that “some young people expressed that the impact of being forced to engage in some activities was: *like mental torture; terrible; horrible*” (p. 215).

In some areas, such as early childhood education and participatory research, it appears that views regarding children have begun to shift. Peters and Kelly (2011) suggested that “rather than

children being seen as objects or subjects to be studied, they are increasingly being viewed as citizens or agents within social settings” (p. 20). In Australia, the government guidelines for participatory research with children have been developed, noting that:

- children are the most knowledgeable about their lives;
- power is shared through collaboration between adults and children;
- research processes adapt to, and are respectful of, children’s communication styles;
- and research processes are flexible and easy to understand.

(Commission for Children and Young People, 2005, pp. 9 - 11)

It is encouraging to hear of countries making policy shifts towards the inclusion of children’s voices in research and literature pertaining to them.

While children’s voices are absent from much of the research regarding them, this study aimed to provide children with an opportunity to be actively seen *and* heard. In order to facilitate this research process in an inclusive and respectful manner, the researcher intentionally utilized methods to capture children’s personal opinions and viewpoints, including self-report measures and qualitative narratives. Incorporating children’s opinions and voices acted as an invitation to demonstrate agency, when very often in our society it is denied. Throughout the progression of this study the intention of the interventions with both groups was to facilitate the programming in a way that was respectful of the children and families, honouring them as co-explorers and experts of their experiences.

Application to Social Work

The Canadian Association of Social Workers (2011) emphasized that social workers have been entrenched in the delivery of mental health services throughout Canadian history. The role of the social worker has developed and changed alongside the deinstitutionalization of mental health services into the current trend toward community-based care. The CASW suggested that mental health and general health are inseparable. There remains a need to see past the definition of mental health as solely that of psychiatric symptoms and recognize the social and environmental factors contributing to mental illness.

Social workers are involved at all levels of the mental health sector – micro, mezzo, and macro. On micro and mezzo levels social workers “primary concern is the social well-being of all people equally with attention to their physical, mental and spiritual well-being” (Canadian

Association of Social Workers, 2008, p. 1). On a macro level social workers “demonstrate a greater capacity to look beyond the illness and treatment issues, to consider the broader human, social and political issues in mental health. This breadth of analysis and focus are specific strengths of social work in mental health” (Australian Association of Social Workers, 1999, p. 29).

Social work was defined by the International Federation of Social Workers as a profession that:

promotes social change, problem-solving in human relationships, and the empowerment and liberation of people to enhance wellbeing. Utilizing theories of human behavior and social systems, social work intervenes at the points where people interact with their environments. Principles of human rights and social justice are fundamental to social work. (Hare, 2004, p. 409)

Recognizing the human rights of child-clients and pursuing just and inclusive treatment are imperative for social work practices with children. Likewise, utilizing theories regarding attachment and human development are paramount to respectful and ethical treatment, encouraging intervention at points where children interact with their principle environments: home and school.

Due to the potential difficulties associated with normative fears and anxiety symptoms, the literature demands that early intervention and prevention work be a priority for mental health professionals working in schools (Waddell et al., 2005). Social work has historically addressed mental health concerns as not only internal difficulties but as socially and environmentally impacted (Canadian Association of Social Workers, 2011). Few studies have been completed regarding the benefits of parent inclusion in interventions for children’s mental wellness. This study draws on Attachment Theory as a theoretical base to examine the impact of parent inclusion in mindfulness based early-interventions for non-clinical populations of children experiencing fear and anxiety symptoms.

Chapter 2: Theoretical Framework

This chapter will discuss the history and relevance of attachment theory in regards to anxiety concerns and the association between attachment security and children's anxiety symptomology. Attachment theory, which focuses on the importance of interpersonal relationships and bonds, has many implications for social work (Wallin, 2007).

The Evolution of Attachment Theory

In order to fully understand the implications of attachment theory in maladaptive anxiety symptomology, one must look to its development and evolution. Attachment theory has evolved through substantive contributions made by principal theorists: Bowlby, Ainsworth, Main, and Fonagy.

John Bowlby.

The original proponent of attachment theory, John Bowlby, made extensive contributions to the field, identifying "attachment as a distinct, biologically based, and absolutely fundamental behavioural/motivational system" (Wallin, 2007, p. 26). He proposed the theory that individual differences in attachment system functioning were reflections of the child's *internal working model*. Kenneth Craik, originator of internal working model theory, defined an internal working model as an internal miniature model of external reality in which one can see possible actions of the self and others, try alternatives, and predict future occurrences in advance (Wallin, 2007). Drawing on the works of Kenneth Craik and the objects relation theory of Jean Piaget, Bowlby theorized "the infant's repeated interactions with caregivers result in knowledge about the interpersonal world that registers internally as a working model" (p. 27). Bowlby believed that a child's internal working model of the self was most prominently impacted by their perceived acceptability in the eyes of their attachment figures. The child's perceived acceptance by the attachment figure was gauged based on the caregiver's accessibility and responsiveness. Bowlby suggested that internal working models could potentially be updated or changed based on new patterns of relationships or heightened awareness. That being said, he noted that internal working models are often highly resistant to change due to the unconscious nature of the caregiver-child interactions and the defences in place.

Another of Bowlby's fundamental contributions to attachment theory was the recognition of attachment as a "biologically based evolutionary necessity" (Wallin, 2007, p. 11). Bowlby proposed

that attachment was developed as a motivational system in human evolution due to infants' absolute need to maintain proximity to caregivers for survival. He deemed this motivation system the *attachment behavioural system*, a system developed through evolution to increase the likelihood of reproduction and survival. The instinctual nature of attachment to protect from threat included three kinds of behaviours in early childhood: monitoring/maintaining proximity to the attachment figure, using the figure as a 'secure base' from which to explore, and fleeing to the figure as a refuge when threatened or frightened (Wallin, 2007). Bowlby suggested that the purpose of attachment behaviour was not only for survival and protection from danger but also reassurance of the caregiver's ongoing emotional security, accessibility, and responsiveness.

Mary Ainsworth.

Mary Ainsworth, a colleague of Bowlby, confirmed many of Bowlby's assertions through her research (Ainsworth & Bowlby, 1991). She made several vital contributions to attachment theory, some of which included the observation of attachment systems as malleable, the furthering of the concept of secure base, the description of the mechanisms of secure attachment, and the classification of attachment styles.

Ainsworth began her interest in the subject of attachment through her work on *Theory of Security* developed by University of Toronto professor, William E. Blatz (Ainsworth & Bowlby, 1991). Blatz studied the security of the individual in order to understand personality development. Ainsworth incorporated Blatz's security theory into attachment theory. This merger of theories proposed that

Infants, and to a decreasing extent young children, can feel secure only if they can rely on parent figures to take care of them and take responsibility for the consequences of their behavior. Children's appetite for change leads them to be curious about the world around them and to explore it and learn about it. But learning itself involves insecurity. If and when children become uneasy or frightened while exploring, they are nevertheless secure if they can retreat to a parent figure, confident that they will receive comfort and reassurance. Thus the parent's availability provides the child with a secure base from which to explore and learn. As children gradually gain knowledge about the world and learn skills to cope with

it, they can increasingly rely on themselves and thus acquire a gradually increasing basis for *independent security*. (p. 2)

Ainsworth asserted that the key to security or insecurity in attachment lies in the quality of the infant-caregiver patterns of communication.

Ainsworth devised the *Strange Situation (SS)* assessment, which gave researchers a tool to empirically observe, classify, and study attachment security in young children (Ainsworth & Bowlby, 1991). The SS consisted of a 20-minute assessment in which infants and mothers were introduced to a pleasant toy-filled room followed by increasingly stressful three-minute episodes in which the infant had the opportunity to explore the play space in the presence of the caregiver, was separated from the caregiver twice, was reunited with the caregiver twice, and was introduced to a pleasant stranger - a trained early childhood professional (Wallin, 2007). Ainsworth predicted that this combination of 'strange' situations would allow the observer to assess the attachment relationship between caregiver and child. Attachment security was gauged based on the child's interaction and responses to the reunions with their caregiver (Ainsworth & Bowlby, 1991). Ainsworth classified children's attachment style into secure and insecure attachment categories, and distinguished between two groups of insecure infants: avoidant and ambivalent.

Caregivers with securely attached babies were found to consistently respond to the infant signals and provide timely and fitting nurturing care (Wallin, 2007). Ainsworth observed that "babies who were securely attached not only responded positively to being picked up, being readily comforted if they had been upset, but also they responded positively to being put down, and were likely to turn toward exploration" (Ainsworth & Bowlby, 1991, p. 7). In the SS assessment, securely attached babies were resilient and adaptable, exploring their play space when feeling safe and seeking comfort through connection when alarmed. These children, despite being distressed at separation, were soothed easily with connection and quickly resumed exploration and play.

Babies with avoidant type attachment explored and played while seeming neither interested in nor distressed by the caregivers exit from the room and reappearance (Ainsworth & Bowlby, 1991). Despite the lack of observable distress in the child at separation, infants were found to have the same level of heightened heart rate as their secure peers and significantly greater cortisol levels (Wallin, 2007). Ainsworth explained that caregiver behaviours related to avoidant attachment included "inhibition of emotional expression, aversion to physical contact and brusqueness" (p. 20).

Ambivalent infants were categorized as one of two types: passive or angry (Wallin, 2007). Children with ambivalent attachment did not venture to explore the play space, as they were exclusively concerned with the caregiver's location. During separation these children were overpoweringly distressed and inconsolable. Reunion neither placated the child's distress nor alleviated their preoccupation with the caregiver's location. Ainsworth described the caregivers of ambivalent children as being "at best, unpredictable and occasionally available" (p. 20).

Mary Main.

A student of Ainsworth, Mary Main furthered many of Ainsworth's premises and studied the lifelong implications of attachment (Wallin, 2007). Main's research in the field explored the long-term implications of early attachment relationships, how attachment is encoded in the mind, and how it influences future relationships.

In viewing hundreds of tapes of the *Strange Situation* that did not fit into the three categories, Mary Main noticed that 90% of the uncategorized videos included the same peculiar contradictory behaviour, which she designated as *disorganized attachment* (Wallin, 2007). At reunion, after separation from the caregiver, the child "backed toward mother, froze in place, collapsed on the floor, or appeared to fall into a dazed trance like state" (p. 22). Ainsworth did not initially notice these behaviours as they frequently lasted less than 30 seconds. Mary Main suggested that disorganized attachment is the result of the attachment figure not only being experienced by the child as a secure base but as a threat or source of danger. The child is pulled in two distinct directions, each motivated by a biological imperative, to approach for connection and to avoid danger. While infants with disorganized attachment are found in all family demographics, including those deemed non-risk, there remain a disproportionate representation in families considered high-risk (Carlson, Cicchetti, Barnett, & Braunwald, 1989).

Mary Main shifted the research focus from external, observable physical behaviours, to the internal world of attachment and mental representations (Main, Kaplan, & Cassidy, 1985). She found that the internal working models, on which we base our attachment, are created through our earliest attachment interactions. Main expanded on Bowlby's definition of the internal working model, defining it as "a set of conscious and/or unconscious rules for the organization of information relevant to attachment and for obtaining or limiting access to that information, that is, to information regarding attachment-related experiences, feelings, and ideations" (p. 67).

While the Ainsworth *Strange Situation* assessed infants' non-verbal cues as indicators of attachment security, Main aimed to assess attachment of older children and adults by studying the "differences in the mental representation of the self in relation to attachment... [leading] to a new focus on representation and language" (p. 67). To do so, Main developed the *Adult Attachment Interview* (AAI), a tool through which therapists or researchers may assess a youth's or adult's current state of mind with regards to attachment. The AAI is a semistructured interview tailored to ask questions regarding relationships, memories of support, and existing relationships with parents (Bakermans-Kranenburg & Ijzendoorn, 1993). Through the interview, adults are "asked to retrieve attachment-related autobiographical memories from their current perspective" (p. 870). Transcripts are later coded based on the coherency of the explanation and the evaluation of the childhood experience and its outcomes.

In conjunction with the SS, the AAI provided a unique way of looking at parent-child attachment generationally (Wallin, 2007). Main established there was an intergenerational component to attachment insecurity, with insecure attachment styles in children being highly correlated with the outcomes of the parents' AAI assessments.

Peter Fonagy.

Fonagy proposed that in order for attachment theory to be translated into the clinical setting it must be reformulated (Fonagy, Gergely, & Jurist, 2004). He suggested that a key element of attachment is to produce a "representational system for self states through mentalization" (p. 21). He described *mentalizing ability* as including "both a self-reflective and an interpersonal component. In combination, these provide the child with a capacity to distinguish inner from outer reality, intrapersonal mental and emotional processes from interpersonal communications" (p. 4). Fonagy expressed that secure attachment is central to mentalizing ability, which is established through *reflective functioning*. He defined reflective functioning as the "operationalization of the mental capacities that generate mentalization" (p. 3). He suggested that reflective functions allow the observer to see the self and others on the basis of behaviour *and* causal mental states. Reflective functioning is related to the capacities for empathy and insight.

Fonagy's work was informed by *theory of mind*, a term referring to the ways in which an individual makes sense of their own and others behaviours based on perceived mental states (Wallin, 2007). Building on his predecessors, Fonagy described differences in attachment according

to metacognitive capacities and began to study adult's mental states in relation to self and others. Fonagy developed the *Reflective-Functioning Scale* (RFS) as a clinical tool to inform therapists of the interventions the patients would best benefit from. The RFS was developed as a coding structure for the AAI that could be facilitated and coded by clinicians (Taubner et al., 2013). Fonagy expressed that an important aspect of psychotherapy is the extension of mentalizing ability. Through research regarding the RFS, Fonagy demonstrated that mentalizing ability is a link in the transmission of attachment security from caregivers to children.

Longevity and Perpetuation of Attachment Security

While attachment theory research originally seemed to focused on infants and young children, Bowlby recognized that the capacity to attach is an ongoing human necessity driven by mental representations of early attachments (Wallin, 2007). Wallin described the longevity and perpetuation of the internalized attachment relationship, saying

the impact of the first relationship may endure because the original patterns of behavior, communication, and affect regulation are simply maintained and reinforced through the child's ongoing relationship with the same parents who helped shape these patterns in the first place...What begin, in other words, as biologically driven interactions may register psychologically as mental representations that continue lifelong to shape behavior and subjective experience whether or not the original attachment figures are even physically present. (p. 24)

Attachment patterns, developed in infancy, are internalized in the structures of the mind and become self-perpetuating. They not only control how children perceive themselves and others, but also imprint on the child's mind how to anticipate being treated by others. The internal working model of self is what children turn to in times of stress or anxiety to understand their world and predict outcomes of decisions.

Attachment patterns persist not only across the lifespan but also intergenerationally (Wallin, 2007). Main found that parent's *Adult Attachment Interview* classification could effectively predict infant's outcomes in the *Strange Situation*. Likewise, an infant's classification on the *Strange Situation* effectively predicted the parent's *Adult Attachment Interview* classification. Main theorized that insecurely attached parents unconsciously behaved in certain ways towards their children in order to preserve their own state of mind. In an attempt to protect themselves from

perceived threat to their state of mind, parents respond to their children with misattuned or selectively absent responses. In response, infants developed attachment security types similar to those of the parents. Fonagy found that parents with strong reflective functioning were three-to-four times more likely to have securely attached children than those with weak mentalizing ability. He also found that the cycle of insecure attachment could be broken by building up the parent's, or children's, reflective capacity.

Attachment Security and Emotional Regulation

In addition to aiding the infant in developing a working model of self, attachment behaviours also serve to regulate basic biological functions, both physical and emotional (Karr-Morse & Wiley, 1997). Nurturing behaviours help regulate many of the infant's necessary systems, such as the immune system, body temperature, sleep, appetite, blood pressure, and cardiovascular regulation. Infants associate physiological security with proximity to the primary caregiver. Nurturing and attending by the caregiver stimulates the natural opiate network of the infant – connecting attachment with the central reward system.

A key factor in emotional wellbeing is the ability to modulate one's emotions (Karr-Morse & Wiley, 1997). Infants learn to regulate their emotions through contact with an emotionally regulated, and in-tune, adult. The process of learning to emotionally regulate is described by Karr-Morse and Wiley (1997):

When the baby is screaming, the nurturing mother provides soothing to lower the baby's state of alarm. When the baby appears droopy or depressed, an attuned mother will attempt to raise her baby's state to a more elevated mood. These maternal behaviors, besides providing a moderation of the baby's mood, are also maintaining an even balance of neurochemicals in the baby's brain, resulting in the contentment we observe and the baby's experience of emotional modulation, which over time becomes the child's internalized model for self-regulation of strong emotions. (p. 208)

If the security of the attachment relationship is disrupted, or the infant is separated from the caregiver for a prolonged period of time, the infant's emotional and physiological homeostasis is disrupted. The physiological systems of the infant may go into shock, resulting in both physical and emotional consequences.

Self-regulation theories propose that “people have goals, that these goals are organized in some fashion, and that human behavior is largely motivated by pursuit of goals and regulated by feedback regarding goal attainment” (Rodebaugh & Heimberg, 2008, p. 141). It has been suggested that many self-regulation processes occur without awareness. An approach to self-regulation, proposed by Carver and Scheier (as cited in Rodebaugh & Heimberg, 2008), suggested that there are two main emotional systems encouraging goal pursuit: systems related to approach behaviour (promotion) and avoidance behaviour (prevention). Emotions are formed based on the *rate* with which one attains goals, or progress, rather than the attainment itself. Rodebaugh and Heimberg (2008) stated that anxiety disorders are conditions of emotional dysregulation – the inability to modulate affect to attain desired goals. Anxiety symptoms result from the perception of low progress in the prevention of negative outcomes. Persons with maladaptive anxiety symptoms are theorized to not only “have difficulty managing an overactive prevention system, but they also have difficulty engaging their promotion systems effectively, because the prevention system is overactive and demanding of their attentional resources” (p. 143). With overactive prevention systems, persons with anxiety concerns may develop cognitive biases, increasing the perception of threat, impairing successful approach behaviour, and encouraging unnecessary avoidance behaviour.

Shanker (2012) suggested that children face many challenges resulting in difficulties with emotional regulation. Emotional regulation has become an increasingly prominent concern in children, particularly in the education setting. The author stated:

In order to be able to deal with this challenge, a child has to maintain a calm state and settle herself when she becomes anxious or frustrated. She needs to learn how to control her emotional outbursts, attend to and become interested in what her teacher is saying, and if she is to mix comfortably with other children and take an active role in social interactions, she needs to understand what they are thinking and feeling and adjust her emotions to those of others. (p. 107)

Shanker expressed that emotional wellbeing is ultimately motivated by children’s curiosity, determination, perception of self-worth, and security.

Anxiety Symptoms and Attachment Security

While transitory fears, anxieties, and worries are a part of normal child development, some children experience persistent and overwhelming symptoms of anxiety. Brumariu (2012) suggested

that there is “substantial support for the hypothesis that children who form secure attachments with their caregivers are at lower risk for anxiety symptoms than children who form insecure attachments” (p. 3). The *quality* of attachment relationship between the child and primary caregiver is thought to be a factor related to the development and maintenance of anxiety symptoms. Insecurely attached children may not be able to depend on the caregiver’s attention, comfort, or responsiveness.

When insecure attachment becomes imbedded in the parent-child relationship the outcomes are problematic. It is theorized that parents struggling with anxiety symptoms and insecure attachment styles may inadvertently engage in parenting practices that further promote anxiety symptoms in their children (Crosby Budinger et al., 2013). Caregivers struggling with anxiety symptoms may perceive a lack of control over their future and, in an effort to reduce their fears or worries, utilize excessively controlling behaviours in their parenting. The development of independence and autonomy seeking behaviour in children may lead to heightened caregiver anxiety symptoms and increased parental attempts to control the child, fuelling the parent’s perceived lack of control and perpetuating the maladaptive cycle.

A study by Affrunti and Ginsburg (2012) indicated that parent over-control may signal to children that their environment is threatening and they are unable to cope with the situation on their own. The study found that children with higher levels of perceived threat in ambiguous situations had heightened anxiety symptoms. As parent anxiety symptoms increased, so too did child anxiety symptoms and perceived level of threat. It is suggested that anxiety related parenting behaviours might contribute to children’s symptoms of anxiety and negative cognitive bias.

Maladaptive automatic or reactive patterns of communication in the parent-child relationship may be another environmental contributor to childhood anxiety symptoms. Psychological attention processes hold an object or experience in focussed attention for a limited time period before affective or cognitive processes engage in a response (Duncan, Coatsworth, & Greenberg, 2009). Due in part to the history in the relationship, parent-child interactions tend to be highly automatized. These relationship patterns are often habitual, judgemental, and reactive, with little-to-no conscious awareness or intentionality. Automatic responses, in addition to pre-existing cognitive biases, may lead to significant distortions of the present reality.

Mindfulness interventions have proven to be useful tools for addressing attachment (Shaver, Lavy, Saron, & Mikulincer, 2007; Snyder, Shapiro, & Treleaven, 2012; Wallin, 2007) and anxiety related concerns (Saltzman, 2014; Saltzman & Goldin, 2008; Semple & Lee, 2011; Semple, Lee, Rosa, & Miller, 2010; Semple, Reid, & Miller, 2005). Shaver et al. (2007) maintained that mindfulness practices help to retrain the brain to support outcomes similar to those of secure attachment.

Chapter 3: The Treatment Modality

Mindfulness is a relatively new addition to the western fields of medicine and social science, with a rapidly growing research base (A. P. Brown, Marquis, & Guiffrida, 2013). Mindfulness-based interventions are derived from ancient yogic and Buddhist meditation practices, developed thousands of years ago as a means to lessen psychological suffering. Although based on historically spiritual ideals, Western mindfulness-informed interventions are commonly taught in a secular manner (Sawyer Cohen & Semple, 2010). Jon Kabat-Zinn (2003) describes mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (p. 144).

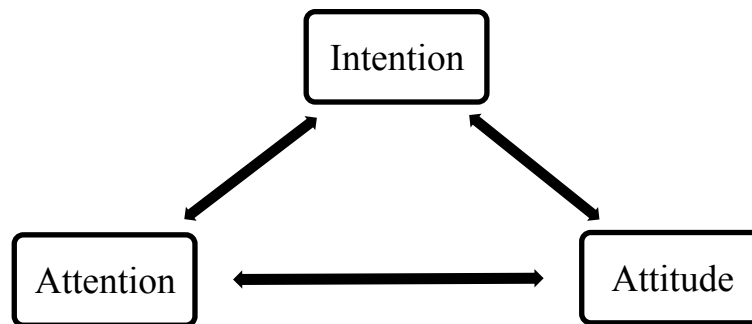
Mindfulness as Intervention

Mindfulness interventions have been applied to numerous mental and physical concerns impacting children and adults (Snyder et al., 2012). In relation to children and families, mindfulness interventions have shown “promising results in the areas of reduction of psychological distress and affective disturbance, increases in affect/emotion regulation, and decreases in overall stress and anxiety” (p. 710). Mindfulness has been incorporated into many diverse settings, such as hospitals, schools, and communities, and into unique and distinct therapy models such as Dialectical Behaviour Therapy and Acceptance and Commitment Therapy. Predominant mindfulness-based interventions include Mindfulness Based Stress Reduction (MBSR) and Mindfulness Based Cognitive Therapy (MBCT). Both of these intervention models include breathing, eating, sitting, walking and listening meditations as well as hatha yoga (gentle stretching), body scan practices, psychoeducation, and home practice.

Mechanism of change.

While much research has been completed regarding the effectiveness and feasibility of mindfulness intervention, less research has been done to explain the mechanism of change. A study by Shapiro, Carlson, Astin, and Freedman (2006) proposed a theory of mechanisms involved in the construct of mindfulness. The model they offered consisted of three axioms: intention, attention, and attitude (IAA). They described mindfulness as an interwoven process made up of the three aspects simultaneously (see Figure 1).

Figure 1: IAA Mechanism of Mindfulness



Intentions are an imperative component of mindfulness practice (Shapiro et al., 2006). They shift and change with practice, often from self-regulation to self-exploration to self-liberation. Attention is another cornerstone of mindfulness practice. It involves paying attention to, or observing, one’s internal and external experiences in the present moment. The attitudes with which we set intention and focus attention are the third equally important piece. It is imperative to consciously commit to observing experience without judgment and with acceptance, compassion, and an open heart.

Shapiro et al. (2006) proposed that the IAA axioms are responsible for much of the therapeutic change associated with mindfulness practices. The authors proposed that “intentionally (I) attending (A) with openess and non-judgmentalness (A) leads to a significant shift in perspective” (p. 377). The authors termed this shift *reperceiving* or *decentering*. Decentering refers to the disidentification of the self from conscious thought and affect (Gecht et al., 2014). With a decentered perspective individuals can observe thoughts and emotions as transient mental events and not a reflection of the self or reality.

Decentering is proposed to lead to changes in many mechanisms including self-regulation (Shapiro et al., 2006). Mindfulness interventions enhance self-regulation feedback loops increasing regulation, overall health, and repairing maladaptive automatic responses. With awareness, automatic responses, such as avoidance, become less impulsive and less necessary. With a decentered awareness, individuals can choose to respond rather than react, develop a more adaptive set of coping skills, and foster greater wellbeing. Shapiro et al. (2006) describe this shift as liberation: “by developing the capacity to stand back and witness emotional states such as anxiety, we increase our ‘degrees of freedom’ in response to such states, effectively freeing ourselves from automatic behavioral patterns” (p. 380).

Benefits noted through neuroscience.

Much research continues to be done regarding the neurological benefits of regular mindfulness meditation practice. Measurable physiological and psychological effects of mindfulness practices have been noted through the marked lessening of stress physiology and measurable changes in various areas of the brain. Overall, findings from multiple studies have shown that mindfulness practices have the ability to alter a variety of neurological cognitive processes (Allen et al., 2006; R. Hanson & Mendius, 2009; Meiklejohn et al., 2012). Meiklejohn et al. (2012) noted that the brain areas affected by mindfulness practice are those also responsible for executive functioning and emotional regulation. Studies have reported that due to the plasticity of the brain, interventions such as mindfulness can be useful to help individuals change their brain structure, through the creation of new neurons and the alteration to neural circuitry, in order to alter stress reactivity and immune functioning (Greenberg & Harris, 2012). R. Hanson and Mendius (2009) argued that changes in brain activity and neurological wiring have the capacity to positively impact mental wellness. Regular meditation is shown to increase grey matter in the hippocampus, insula, and prefrontal cortex. These physiological changes impact mental function specifically in the areas related to empathy, compassion, and attention. Other brain related changes include the reduction of cortisol, the strengthening of the immune system, and the elevation of mood due to the activation of the left frontal areas.

Adverse effects.

While the majority of studies related to mindfulness examine the benefits of the practice, a small number of authors have begun to study the broad range of experiences that result from mindfulness practices, including experiences seen as adverse (Lindahl, Kaplan, Winget, & Britton, 2013; Sharf, 2014). Lindahl et al. (2013) suggested that it is imperative “to recognize that the trajectories of practice outlined in the traditional literature of contemplative traditions include a wide range of experiences that fall outside the commonly reported positive health effects, including unusual affective, perceptual, and somatic changes” (p. 1). The authors recommended that the literature regarding the effects of mindfulness practice would be advanced with in-depth analysis of the traditional sources of mindfulness meditation. It is cautioned that without a full understanding of the range of possible experiences, including an exploration of “traditional religious, social, and

cultural contexts” (p. 1), disclosures of unusual symptoms may result in misdiagnoses as physical or mental illnesses.

Sharf (2014) argued that the separation of mindfulness from Buddhist traditions might result in an adverse effect known as *meditation sickness*. He suggested that intense focus on achieving inner stillness, without a balance of religious study, may lead to the practitioner to a state of “falling into emptiness” or “meditation sickness” (p. 7). With intense immersion into the present moment it is possible for the practitioner to become estranged from their world, their social connections, and potentially their sanity. Transformation to enlightenment must be a gradual process. The author stated “from a more traditional Buddhist perspective, what is missing in the modern mindfulness movement is precisely this gradual transformation, which involves active engagement with Buddhist doctrine and Buddhist forms of life” (p. 8).

Additional adverse effects may lie in the practices themselves (Allen et al., 2006). As mindfulness practices bring awareness and introspection to perceived positive and negative events in the mind and body, part of the practice is to respond to pleasant, unpleasant and neutral thoughts, feelings, and sensations with non-judgemental observation and compassion. In beginning practice, introspection may lead to heightened anxiety or stress due to the focus on, or awareness of, possible unresolved stressors or pains.

In studies regarding the adverse effects of all meditation practices, most often transcendental meditation, some short-term unpleasant effects noted by adults have included paradoxical increases in tension, anxiety, boredom, pain, confusion, disorientation, depression, negativity and self judgment (Allen et al., 2006). It is important to note that these symptoms were reported as temporary or fleeting. A metaanalysis completed by Burke (2010) found no reported adverse effects of mindfulness training for children or youth.

Mindfulness and Attachment

Mindfulness practices encourage the development of an awareness of present-moment thoughts, feelings, and bodily sensations, responding to this awareness with non-judgment and compassion (Baer, 2003). The cultivation of non-judgement regarding thoughts, feelings, and sensations in mindfulness practices may lead to acknowledgment that thoughts are perceptions and not necessarily truth or reality. With practice, this decentred view of thoughts may break the cycle of anxious rumination or perseveration. Overall, the structure of mindfulness interventions may

reduce stress levels and anxiety symptoms, leading to a decrease in over-controlling parenting behaviours and decreased cognitive bias and anxiety symptoms in children.

Mindfulness-based interventions have proven to lead to adaptive changes in thought patterns and cognitive biases (Baer, 2003). Mindfulness addresses habitual relationship patterns by promoting an orientation towards stepping out of automaticity and reactivity through being present with intentionality, accepting lived experiences that are both pleasant and unpleasant, and showing compassion for self and others. Jon Kabat-Zinn (as cited by Baer, 2003) stated that “nonjudgmental observation of pain and anxiety-related thoughts may lead to the understanding that they are ‘just thoughts,’ rather than reflections of truth or reality, and do not necessitate escape or avoidance behavior” (p. 129). The ability to see thoughts as *just thoughts*, or decenter, encourages an understanding that cognitions are not reality and may not be adaptive.

With mindfulness practice, persons with insecure attachment are shown to have: “lower health risks, better behavioral self-regulation, better academic outcomes, greater relationship satisfaction, and more constructive responses to relationship conflict” (Baer, 2003, p. 265). This is restated in the book *Attachment in Psychotherapy* (Wallin, 2007). Wallin suggested that, with practice, mindfulness interventions can promote an earned secure attachment. The mindful stance of “opening to the difficult and adopting an attitude of gentleness to all experience” (p. 161) promotes the finding in oneself a place of calmness and compassion, akin to that of secure attachment. Fulton (as cited in Wallin, 2007) stated: “mindfulness offers a way to change our relationship to suffering by surrendering our need to reject it. This is an act of kindness to oneself” (p. 161).

Mindfulness practice builds the same brain areas associated with secure attachment, enhancing understanding, awareness, and the capacity for healthy relating (Snyder et al., 2012). It provides a means through which to recontextualize experience: individuals with insecure attachment can shift internal working models and “earn” secure attachment over time. Mindfulness practice is not an easy or quickly learned task. Jon Kabat-Zinn (2003) described this process as an art form that takes time, effort, and practice to develop. He stated, “mindfulness is not merely a good idea such that, upon hearing about it, one can immediately decide to live in the present moment... and then instantly and reliably realize that state of being” (p. 148). He suggested that once the present moment is experienced, one may discover that it is altered or edited through habitual and mindless thoughts and emotions that are often disconnected from our experience of the

self, relationships, and the world. By engaging in mindfulness practice on a regular basis in both formal and informal ways, parents and children can become more aware of their thoughts, feelings, and bodily sensations. This sense of grounding in the present moment may be effective in shifting internal working models of self and promoting earned secure attachment.

With practice, mindfulness interventions provide a more authentic representation of the present (Duncan et al., 2009). Maintaining an awareness of immediate experiences provides a viable alternative to habitual automatized reactions. Replacing automaticity with mindful processing of experience is thought to lead to increased self-regulation. In parenting, mindfulness practice can allow parents to stop and fundamentally shift their awareness in order to view their present-moment parenting experience within the context of the long-term relationship that they have with their child, as well as attend to their child's needs, while exercising self-regulation and wise choice in their actions. (p. 256)

Mindfulness practices have shown to be effective tools in combating resistant negative automaticity in parenting because they encourage parents to step back from adverse coping patterns and replace less effective patterns with a more productive coping pattern.

The use of mindfulness-based interventions with children and families has the capacity to impact children's attachment experience and the maintenance of anxiety symptoms from both an intrapersonal and interpersonal standpoint (Duncan, 2007; Wallin, 2007). While it is possible for adults to sever the cycle of insecure attachment, through mindfulness or other forms of psychotherapy, it is most effective to shape attachment security while it is still forming in childhood. It is suggested that the optimal setting for reparative attachment work to be done is the original relationship of attachment (Wallin, 2007).

Mindfulness Based Stress Reduction

Mindfulness Based Stress Reduction (MBSR) is one of the most widely used and frequently cited mindfulness-based interventions (Baer, 2003). The MBSR program, previously known as the *Stress Reduction and Relaxation Program*, was developed at the University of Massachusetts Medical Centre to assist clients in relieving stress and coping with illness and chronic pain (Kabat-Zinn, 1990). It is delivered in a weekly eight-session program, for two or two-and-a-half hours per week, with an additional day of silent meditation (the Day of Mindfulness) around week 6.

The program is historically run in a group format with up to 30 participants (Baer, 2003). In addition to the group sessions, participants are expected to carry out up to 45 minutes of home practice for six days per week. Audio tracks are often used to guide the meditation process. Practices consist of four principal elements including body scan exercises, focus of awareness of the breath, physical awareness exercises with the focus on bodily sensations, and awareness in everyday activities (de Vibe, Hammerstrøm, Kowalski, & Bjørndal, 2010).

MBSR has been studied extensively in use with adults for self-management of pain, anxiety, and stress related mental and physical ailments (Semple et al., 2005). A systemic review showed positive improvements in mental health of participants with mild-to-moderate psychological and physical concerns in clinical and non-clinical populations (de Vibe et al., 2010). MBSR has been utilized effectively as an intervention for people suffering from “chronic pain, heart disease, cancer, fibromyalgia, rheumatoid arthritis, anxiety [disorders], depression, eating disorders, attention deficit disorder, insomnia and burn-out” (p. 3).

Mindfulness Based Interventions for Children and Youth

The immense potential shown in adult trials indicates that further study into appropriately modified mindfulness interventions for children is a valuable pursuit. Coholic (2011) stated

Mindfulness-based practices have the potential to help young people in need learn to focus on their feelings and thoughts without judging these experiences thereby promoting the development of self-awareness. In turn, a foundation of self-awareness can assist youth to build aspects of resilience including improved coping and social skills, problem solving skills, and feelings of self-esteem. (p. 314)

Semple, Reid, & Miller (2005) stated that utilizing developmentally appropriate mindfulness interventions with children may in fact be more beneficial than existing interventions. Mindfulness interventions may be more cost effective – particularly if delivered in school-based settings – and the reliance on self-awareness and self-management may further self-efficacy and the maintenance of therapeutic gains. A report by Meiklejohn et al. (2012) argued that the implementation of universal school-based mindfulness interventions for children from kindergarten through twelfth grade might be a viable option to enhance children’s self-regulation and build resilience against the damaging effects of toxic stress. Through mindful awareness children can learn to be present rather than past or future oriented, objective versus subjective, and responsive instead of reactive.

Saltzman and Goldin (2008) caution that when working with school populations, it is paramount to clearly express the secular nature and universality of mindfulness and create opportunities for school staff, administrators, and parents to experience mindfulness and ask questions.

Review of literature.

Several authors have found that mindfulness interventions are feasible, suitable, and acceptable for use with children and youth (Burke, 2010; Coholic, 2011; Greenberg & Harris, 2012; Meiklejohn et al., 2012). The following section provides an abridged overview of literature pertaining to the use of mindfulness-based interventions with children experiencing anxiety symptoms.

Semple et al. (2005) studied the feasibility and efficacy of a school-based six-week Mindfulness Based Cognitive Therapy (MBCT) group program. The study included five children aged seven-to-eight years old with anxiety concerns. Changes in child anxiety were measured using the Child Behaviour Checklist (CBCL): Teacher Report Form, the Multidimensional Anxiety Scale for Children (MASC), and the State Trait Anxiety Inventory for Children (STAIC). In addition to this battery of measures, the researchers developed the “Feely Faces Scale” for children to report their global mood-states. The self-report anxiety measures utilized in this study indicated that children had low levels of anxiety at pre-test and at post-test. The authors argued that the outcomes of these measures were contrary to their clinical observations and those of their teachers. They suggested that children may have underreported their anxiety and that the scales were not suitable for use with the children in this study due to age and reading comprehension ability. Children were observed to have been “readily engaged in exploring mindfulness using their various senses to enhance their daily experience” (p. 389). Teacher ratings were positively improved on the CBCL, and the researchers’ clinical observations suggested that mindfulness might be a promising intervention for childhood anxiety. Results showed that the MBCT program was feasible and acceptable for use with children and called for further attention to developmental issues.

As a follow up to the Semple et al. (2005) study, Lee et al. (2008) extended the MBCT program for children to twelve-weeks. Twenty-five children between the ages of nine and twelve years old were referred to a clinic for anxiety related concerns and completed the developmentally altered MBCT program. Authors found preliminary support for the efficacy of MBCT as an intervention for clinical anxiety. The authors utilized four standardized measures including the

CBCL: Parent Report Form, MASC, STAIC, and the Reynolds Child Depression Scale. Qualitative methods were also utilized, including participant and parent evaluations and questionnaires. The study found no significant changes to children's anxiety symptoms in either the STAIC or the MASC measures in either the intent-to-treat sample or the program-completing sample. The authors suggested that scores were difficult to interpret due to the fact that the majority of children did not report clinically elevated anxiety at baseline. Lee et al. found that those children with clinical levels of anxiety at pre-test (n=6) had significant reductions in anxiety symptoms by post-test. Likewise, qualitative reports from the children and parents suggested that the program was indeed helpful with performance anxiety in school. Feasibility and acceptability were demonstrated through high attendance, retention, and positive program evaluation. A full copy of the curricula of the MBCT program for children is available in the book *Mindfulness-Based Cognitive Therapy for Anxious Children: A Manual for Treating Childhood Anxiety* (Semple & Lee, 2011).

In 2008, Goldin, Saltzman, and Jha completed a wait-list controlled study of an eight-week altered MBSR program (as cited in Saltzman, 2014). The altered MBSR program was fashioned to be developmentally appropriate for use with children, youth, and child/caregiver dyads. Thirty-one children, in grades four through six, and 27 caregivers were enrolled in the study (Saltzman, 2014). The child-caregiver groupings were self-referred and from a non-clinical sample (Saltzman & Goldin, 2008). Low attrition rates (17%) suggested that mindfulness programming with children and caregivers was a feasible means of program delivery. Saltzman and Goldin investigated the impact of the MBSR program on attention, emotional regulation and reactivity, symptoms of anxiety and depression, and metacognitive functioning. Results showed that parents had further developed attention skills at baseline compared to their children, based on the Attention Network Task, and were more critical of themselves, measured with the Self-Compassion Scale. The authors found that high parent state anxiety was strongly associated with low self-compassion. The study suggested that there might be a link between state anxiety, in both children and caregivers, and poorer psychological functioning. The authors reported that the MBSR group of children and parents, versus waitlist controls, demonstrated significant improvement on the cognitive control subscale of the Attention Network Task. The authors also found that children and parents in the group developed an increased ability to "direct their attention in the presence of distracters that usually induce conflict" (p. 155). Participants in the MBSR group were found to have significant

decreases in emotional reactivity, with parents in the group demonstrating a stronger effect. Children showed improvements in self-compassion and self-judgment. Parents in the program reported significant reductions in anxiety and depression symptoms. Saltzman reported that there was a decrease in children's anxiety symptoms, corroborated by written narratives (Saltzman, 2014).

A randomized controlled trial by Maria Napoli (2005) also pertained to childhood anxiety symptoms. The study included 194 children between first and third grade who participated in 12 sessions of mindfulness and relaxation programming. The mindfulness training was designed to help students develop focus and attention skills. Measures included the ADD-H Comprehensive Teacher Rating Scale, Test Anxiety Scale, and the Test of Everyday Attention for Children (TEA-Ch). Compared to the control group, the group receiving mindfulness training showed a significant decrease in test anxiety and increases in selective attention, social skills, and executive functioning. No significant difference was shown in the TEA-Ch: Sustained Attention subscale. The authors suggest that incorporating mindfulness into education settings may be “an ideal way to begin teaching children at an early age how to deal with stress and anxiety and focus and pay attention” (p. 113).

Systemic reviews by Greenberg and Harris (2012) and Burke (2010) found that overall, mindfulness interventions for children are feasible and acceptable with no reported ill effects. They recommended that there remains a need for larger, well-designed trials to develop a more rigorous evidence base. The reported lack of rigorous methodology demonstrated in the current body of research makes drawing overall conclusions regarding the efficacy of mindfulness interventions for children and youth difficult, if not impossible. The meta-analyses suggest a move towards studies with sufficient power, unbiased measures, active control groups, long-term follow-ups, and a foundation in developmental theory. It is suggested that future studies describe not only their intervention methods but also the intervention duration and the qualifications of teachers/researchers.

The research completed in this area is promising and still in its infancy. In the future, further empirical evidence will be needed to demonstrate efficacy. While rigour in methods is desirable to prove intervention efficacy, Saltzman (2014) suggested that due to the nature of mindfulness interventions this may be easier said than done. Saltzman stated “it is equally important to

remember there are benefits of mindfulness that are profoundly transformative, and difficult – if not impossible – to quantify, especially in children and adolescents” (p. 194).

Developmental modifications.

In order to effectively utilize this intervention with children and parents, it is important to fully understand the theoretical fundamentals of mindfulness and child development. Burke recommended that studies regarding mindfulness-based interventions with children and youth take into account developmental concerns (2010). Some developmental needs that must be considered include children's competence with language, capability to hold attention, cognitive competencies, and physical abilities. Lee et al. (2008) described the motivation for altering the core MBCT program to make it more developmentally appropriate to children. As children have shorter attention spans than adults and less developed memory, the authors changed the program structure by shortening sessions and lengthened the program to allow for more repetition. The program also contained shortened home practice exercises, which took approximately 15 min per day, 6 days per week.

Lengthy periods of meditation practice and home practice are developmentally unsuitable for children. Greenberg and Harris (2012) reported that sitting meditations might be completely inappropriate for young children due to their metacognitive abilities and limited attention span. A review by Davis (2012) suggested that mindfulness meditations for children be limited to between five and 15 minutes as opposed to the traditional length of 40 minutes for adults. Saltzman and Goldin (2008) recommended using a child's age (one minute per year of age) to generally determine the length of time they can be expected to participate in formal practice.

Many studies show that the incorporation of expressive arts into mindfulness interventions is particularly beneficial due to children's limited opportunities and capacities for verbal expression (Coholic, Eys, & Loughheed, 2012; Saltzman & Goldin, 2008; Semple et al., 2005). The use of art may provide children additional avenues of exploration and awareness building. It is recommended that mindfulness practitioners allow children the freedom of creative expression – utilizing various expressive mediums to enhance efficacy and integration. Lastly, if program creators are to be effective, they must address the fact that children are part of bigger social structures of family, community, and education.

Integration of movement practices.

Movement practices are an important aspect of mindfulness practices with children (Saltzman, 2014). In this study children and parents articulated that some of their favourite activities were the movement-based practices. This response is aligned with suggestions from Brantley (2010), who stated:

mindfulness practice is most effective when it includes the mental and the physical experience. Therefore, you should have meditation practices that emphasize both in your daily practice. What the methods are is not so important as the quality of attention paid to mind and body in a systematic and consistent manner. (p. 209)

The author suggests that individuals experiencing anxiety symptoms experiment with movement practices and sitting practices, finding the balance that is helpful for them. While this suggestion was made regarding adults, children are also observed to benefit from a combination of developmentally appropriate movement and static practices (Saltzman, 2014).

Teaching requirements.

In response to the rapidly growing demand for mindfulness programming, pioneers in the field have set guidelines for teacher qualifications. Burke (2010) suggested that the most common requirements to teach mindfulness interventions include a current personal mindfulness practice, professional training, and completion of mindfulness retreats, supervision, and continuing competence. Jon Kabat-Zinn (2003) argued that in order to teach mindfulness, facilitators must practice mindfulness personally and authentically in their lives. Only with extensive personal practice can one teach mindfulness skills with authenticity, energy, and relevance.

The Northern California Advisory Group on Mindfulness in Medicine created a list of minimum teaching requirements and ideal teacher qualities for teaching mindfulness to youth (Saltzman, 2014). The guidelines suggested that both qualities and qualifications are necessary, with qualities being of utmost importance. The guidelines proposed that some qualified individuals might in fact be lacking the qualities required to teach. It is also possible that some individuals who do not meet all of the specific qualifications possess the qualities and capabilities to teach. Saltzman states:

None of us are able to embody all of the qualities all of the time ... The essential question is this: Can you commit to embodying the qualities and paying attention,

and to being both rigorously honest and compassionate with yourself when you fall short? This is the essence of mindfulness. It is the primary measure of your own personal journey *and* your capacity to share this work with others [emphasis in the original]. (2014, p. 161)

The present study was initiated despite the researcher not meeting all of the qualification requirements. The researcher maintained supervision by a qualified mindfulness instructor and mentoring teacher throughout the process and was honest and compassionate with herself of her shortcomings. While the researcher did not meet all of the qualifications outlined in the guidelines – specifically regarding the duration of experience of five years or more and attendance of multiple residential retreats – she met the majority of the necessary qualities for teaching. In addition, the researcher possessed qualifications for teaching in that she had attended and co-facilitated MBSR programs with Dr. Rachael Crowder, a certified MBSR teacher and mentoring teacher-trainer prior to the research leading up to the study, is a trained children’s yoga facilitator, and possessed years of experience as a social worker with children and families. Weekly clinical supervision with Dr. Crowder throughout the process enhanced the researchers knowledge base and provided an additional lens of experience through which to understand and aid participants.

Mindfulness Based Stress Reduction for Children and Families: Still Quiet Place

The intervention employed in this study was based on the *Still Quiet Place* program developed by Amy Saltzman (Saltzman, 2014; Saltzman & Goldin, 2008). The Still Quiet Place is a developmentally appropriate variation of MBSR for use with children, youth, and families. Saltzman’s program outline (see Appendix A) was used as a model for the facilitation of this research study. The only addition to the Still Quiet Place program was the use of eye-pillows to aid the participants in focusing their attention and decreasing distraction. Many of the children reported that the eye-pillows were beneficial to their mindfulness practice.

The current study began with an evening parent orientation and closely followed the curricula outlined in Saltzman’s model (Saltzman, 2014). The program design was flexible for school schedules, allowing for a holiday break in the middle. For the purposes of this research there was no break necessary within the facilitation timeline. As suggested by the text, the outline and activities were followed in a flexible manner to respond to children’s present concerns.

The *Still Quiet Place* program is adaptable for use in groups with children alone or children and their caregivers (Saltzman, 2014). When used with parents and children together it was recommended that the standard program be altered to include parenting-based mindful weekly home practice (e.g. kissing the child goodnight), discussion and integration of learned mindfulness techniques into parenting, and the implementation of the practices of acceptance, responding versus reacting, and loving kindness within the parent-child relationship. These additions to the program are unique, and increased awareness of emotions is thought to lead to greater empathic responsiveness (Davis, 2012).

Chapter 4: Methods

This study was designed to explore the following question: What is the impact of parent inclusion in mindfulness early intervention programming for a non-clinical population of children experiencing anxiety symptoms? For this purpose, the study included two groups of participants: one group with children participating without direct parent participation and another including children and one or more participating caregivers.

The choice to study the effect of the intervention on two sets of participants was based on the research pertaining to attachment and mindfulness discussed in previous chapters. Mindfulness interventions are known to support outcomes similar to those of secure attachment and to begin to repair maladaptive cognitive processes (Wallin, 2007). The reported benefits of mindfulness interventions, coupled with the fact that most children referred for individual and group counselling are seen without direct parent involvement, provide a strong argument for exploring the outcomes of the intervention on anxiety and relationships with and without parent participation (Kymissis & Halperin, 1995).

While the intervention alone is theorized to build attachment security outcomes, it is emphasized in the literature that the most effective way to make reparations in children's attachment security is to work in the original attachment relationship (Wallin, 2007). It has been suggested there may be numerous benefits to dyadic parent-child interventions including the creation of safe communities where parents can learn and feel "good enough" in their efforts towards change (Proulx, 2002).

Furthermore, opportunities for growth within relationships may be amplified with psychoeducation and the modeling of healthy relationships between the dyad and the facilitator, the caregiver and child, and the dyad and group. The goal of this research was to explore subclinically anxious children's experiences in the group, in both individual and dyadic approaches to delivery. Guided by a theoretical framework in attachment theory, this study sought to understand the implications of parent inclusion in mindfulness based early intervention programming for non-clinical children with symptoms of anxiety.

Mixed Methods Research Design

This study utilized a mixed methods research design, defined as the collection, analysis, and drawing of inferences of both qualitative and quantitative data, either sequentially or concurrently,

in one study (Cameron, 2011; W. E. Hanson, Creswell, Clark, Petska, & Creswell, 2005). The marriage of data collection methods “allows researchers to simultaneously generalize results from a sample to a population and to gain a deeper understanding of the phenomenon of interest” (W. E. Hanson et al., 2005, p. 224). While a mixed methods approach was used in this study, it was exploratory in nature and carried out from a non-positivist worldview. Stebbins (2001) stated “exploration aims to generate new ideas and weave them together” (p. 11). From a positivist perspective this often means “production of valid generalizations about a type of group, process, activity, or situation” (p. 13). The production of generalizations, from a non-positivist perspective, is criticized as only presenting an overall view and missing the unique aspects of the individuals being studied. Non-positivist scholars engage in exploratory research from a different perspective. The author suggested “the principal difference is that, when they examine singular events or cultural items, they avoid making broad generalizations about them as types” (p. 14).

Figure 2: Concurrent Triangulation Design



This study consisted of a mixed-methods design known as concurrent triangulation, depicted in procedural notation in Figure 2. W. E. Hanson et al. (2005) described the design as follows:

In concurrent triangulation designs, quantitative and qualitative data are collected and analyzed at the same time. Priority is usually equal and given to both forms of data. Data analysis is usually separate, and integration usually occurs at the data interpretation stage. (W. E. Hanson et al., 2005, p. 229)

Both quantitative and qualitative methods of data collection were completed concurrently and analyzed separately before being combined. Specific details regarding design, data collection, and analysis of both qualitative and quantitative components are detailed in the next section.

The Situated Researcher

Dwyer and Buckle (2009) suggested that it is imperative for researchers to situate themselves in reference to their research. Maykut & Morehouse (as cited in Dwyer & Buckle, 2009)

discussed the importance of remaining “acutely tuned-in to the experiences and meaning systems of others—to indwell—and at the same time to be aware of how one’s own biases and preconceptions may be influencing what one is trying to understand” (p. 55). The situation of the self of the researcher in this document allows the reader to decide if the researcher’s social location either improved or impeded her ability to carry out this study.

As the primary researcher in this study, the author is relatively new to the discipline of social science research and the use of the Mindfulness Based Stress Reduction (MBSR) modality. The researcher has been practicing as a social worker for three years within elementary schools in the Lethbridge area, working with children and families in group and individual modalities. She has facilitated yoga and mindfulness-based programming with children for two years and has participated in, and co-facilitated, the adult 8-week MBSR course. She completed the MBSR practicum and teacher training and is trained as a children’s yoga facilitator.

Not personally having children, the researcher may be considered an “outsider” in this research demographic. While this may be seen by some as a disadvantage, studies suggested that “being a member of the group being studied is neither necessary nor sufficient to being able to ‘know’ the experience of that group” (Dwyer & Buckle, 2009, p. 59). Researchers stated that *not* being a member of a group might facilitate further knowledge of the group – the ability to identify, describe, and explain it. The impetus for this study arose out of the researcher’s observations of the benefits of mindfulness interventions for children’s anxiety concerns. In practice the researcher found that mindfulness interventions provided an empowering tool for children to change their way of relating to their anxiety symptoms.

Paradigm.

Cameron (2011) stated that “one of the first tasks a researcher needs to undertake is to position themselves paradigmatically” (p. 99). Paradigms, the author suggested, are composed of assumptions that influence thought and behaviour. This research was completed from a social constructionist and narrative paradigm. According to Charmaz (2008), a constructionist approach assumes that reality is multiple, process-based and constructed under particular conditions; that the research processes themselves emerge from interaction; takes into account the researcher’s as well as the participants’ positionality; and the researcher and participants co-construct the data. The use of this viewpoint had a significant impact on the methods utilized in this study and on the way in

which this research was conducted. Social constructionism and narrative methodologies have mutual underpinnings in post-modern and constructivist theories (Roberts & Watkins, 2009). Both theories challenge the notion of empiricism and objectivity, believing that one's reality is constructed through social interactions and language. Narrative methodologies suggest that people use story, or narrative, to understand and interpret their lived experience. Anderson (as cited in Cooper, 2001) suggested that

if we operate from this world view we see all information and all stories as human creations that fit, more or less well, with our experience and within a universe that remains always beyond us and always mysterious. We honour the search for truth and knowledge and values *but regard what we find as the truth and knowledge and values of people—of people in our time* [emphasis in the original]. (p. 725)

This research was completed, and subsequently this document written, not as an exploration of empirical truth or fact, but as the truth and knowledge that the researcher, subjectively, has formed over the course of this study. Howe (as cited in Cooper, 2001) stated “there are no objective fundamental truths in human relationships, only working truths. These decentered contingent truths help people make sense of and control the meaning of their own experience” (p. 726).

This study was completed with the assumption that children actively construct their own worlds and are not passive recipients of knowledge. In addition, the researcher acted on the theory that observation changes that which is being observed, thus there is no objective observer. This belief was grounded in research concerning the *observer effect*, the theory that asserts that the presence of the observer alone will influence the behaviour of that being observed (Monahan & Fisher, 2010). The *observer effect* is not limited to qualitative research, as all knowledge is socially constructed and the “beliefs and expectations of researchers or scientific communities have powerful effects on the ability to measure and interpret the world” (p. 359), despite the chosen research method. While some researchers have argued that the *observer effect* phenomenon contaminates the environment being observed, Monahan and Fisher (2010) expressed it can be seen as beneficial. The authors stated that the “informants’ performances – however staged for or influenced by the observer – often reveal profound truths about social and/or cultural phenomena” (p. 358).

“Bias” from a non-positivist perspective.

While positivist research discusses *bias*, *reliability*, and *validity*, social constructionist researchers discuss similar issues but in distinctive ways and seldom use those terms (Daly & Lumley, 2002; Saldaña, 2011). Social constructionism, a common theoretical viewpoint of qualitative researchers, argues that “biases” should be viewed in regard to the subjective position of the researcher, as aspects of the research that strengthen and further inform data collection methods, analysis, and interpretation. Denzin and Lincoln (1998) suggested that non-positivist researchers bring themselves into their research and that this ‘use of self’ is paramount to qualitative work. Instead of seeing ‘bias’ as needing to be “eradicated or controlled” (p. 331), the authors described the benefits of bringing the self into research as “a set of resources” (p. 331). That being said, the authors stated that “dissolving the distance between the research and those with whom the research is done and the recognition that both are labile, non-unitary subjects steps beyond traditional criticism about researcher ‘bias’ and leads to strong arguments for ‘strongly reflexive’ accounts about the researcher’s part and reflections from the participants ” (p 331).

Instead of discussing positivist constructs of *reliability* and *validity*, non-positivist research examines *credibility* and *trustworthiness* (Saldaña, 2011). Based on Lincoln and Guba’s evaluative criteria, Saldaña (2011) asserted these two factors are imperative to accurate data collection, analysis, and interpretation. Credibility refers to “the unity of the work... the believability of the actor’s presentation” (p. 135). Saldaña (2011) stated that credibility is demonstrated in research through citing key authors and pertinent works in the literature review, through specification of methods utilized, and through inclusion of participant quotations in the text. Trustworthiness “is when we inform the reader of our research processes” (p. 136). The author asserted that this might be done through transparency regarding the process of the research, such as time spent in the field, amounts of data gathered, or discussions of difficulties or dilemmas encountered on the journey. Throughout this research, efforts have been made to demonstrate the credibility and trustworthiness of the research design, analysis, and interpretation herein.

Qualitative Methods

Working from a social constructionist paradigm is not just a method through which to conduct research, but also a statement of responsibility to work with consideration for individual’s unique experiences, challenges, strengths, and expert knowledge. As the researcher aimed to hear

children's voices, the majority of data collected was from the children themselves – as they are the experts of their experience. Data was also collected from parents regarding their own personal experiences, as well as their observations of their children's anxiety symptoms and changes they noticed over the course of the intervention. The collection of qualitative data was crucial to the analysis of the participants' diverse experiences and subjective perspectives, allowing for unexpected and enriching factors.

Research question.

What are the qualitative experiences of children and their parents with regard to parent participation vs. parent non-participation in a mindfulness-based intervention, paying particular attention to the children's and caregivers' anxiety symptoms and the caregiver-child relationship?

Design.

Qualitative methods, coding, and analysis were informed by Saldaña's tomes on qualitative research (Saldaña, 2009, 2011). Saldaña (2011) suggested that to "live in the social world is to experience and reflect upon it daily. But to understand it deeply from a researcher's perspective requires that we collect sufficient evidence to document the patterns, categories, and meanings that humans have created" (p. 31). The author recommended that qualitative research methods be approached provisionally, due to the "emergent and evolutionary" (p. 66) nature of the research process.

In order to gather data from multiple perspective points, data sources utilized in this study included interview transcripts, participant observation, and the collection of documents. Pre- and post-intervention semi-structured interviews of both children and caregivers were conducted and in-person interviews were recorded with participants' consent. Further discussion of the content and development of the interviews may be found in the *Measures* section later in this chapter. The researcher's observations of participants' experiences over the course of the 8-week intervention were documented in field notes. Throughout the intervention children created several documents, such as the writing of a letter to a friend describing their experiences of mindfulness, filling in worksheets, and providing program evaluation and feedback through sticky-notes. All of the document data was collected and transcribed prior to the analysis process. In preparation for analysis, all of the document data was typed into NVivo software to assist in the analysis and coding process.

The qualitative design utilized in this research was an eclectic approach relying heavily on constructionist grounded theory (Charmaz, 2008) and utilizing an intro-generalist coding model with several prominent theoretical underpinnings. Grounded theory is described by Saldaña (2011) as “an analytic process of constantly comparing small data units through a series of cumulative coding cycles to achieve abstraction and a range of dimensions to the emergent categories’ properties” (p. 116). He stated that “grounded theory is not a step-by-step process with specific algorithms to follow. Grounded theory does, however, consist of cumulative coding and categorizing methods with analytic memo writing as a vital heuristic for discovery” (p. 119). As noted in the analysis section, an eclectic approach incorporating several prominent coding and categorizing methods were utilized in the analysis, following an intro-generalist model. In addition, analytic memos were utilised throughout the analysis process.

Caregiver and child interviews.

While empirical assessment tools have been developed for infants, adolescents, and adults, there remain very few self-report measures of attachment in middle-childhood with proven validity and evidence of utility for clinical work (Kerns, Tomich, Aspelmeier, & Contreras, 2000; Ridenour, Greenberg, & Cook, 2006). Likewise, self-report narrative-based assessment tools for attachment in middle-childhood are uncommon and available tools, such as the *School Age Assessment of Attachment and the Child Attachment Interview*, require lengthy training and reliability comprehension and testing (Thambirajah, 2011). For the purposes of this study, attachment related changes were assessed with semi-structured narrative interviews of the researcher’s design. As noted above, in addition to the narrative interviews, further qualitative data was gathered from participants through documents, such as letter writing, regarding their experiences of the program and through written program evaluation, as well as through facilitator observation.

The narrative interviews were administered at pre-test and post-test. Sample questions of the interviews can be found in Appendices D and E. The pre-test children’s interviews were structured to inquire about experiences of anxiety symptoms and triggers, as well as recent incidences. Caregivers were also interviewed prior to group commencement and asked about their observations of their child’s anxiety frequency, severity, symptoms, and triggers. They were also asked about their concerns regarding their child and any current or previous mental health diagnoses.

At the completion of the groups, children were re-interviewed and queried regarding their

experiences of the group, any changes in their relationships with their families, and any changes in their levels of anxiety. Parents were given the option to either complete the interview questions in person or online. All parents who chose to respond selected to complete questionnaires online. Of the 16 parents who enrolled their children in the program, nine completed the online survey – four from the parent-child group and five from the child-only group. Long-answer survey questions inquired about the parent’s perception of the effects of the group on the child, themselves, and the relationships within their family unit. All interviews ended with open questions asking participants if there was more information they wished to share or topics the researcher had not discussed.

Analysis.

The qualitative analysis methods utilized in this study were informed by the text written by Saldaña (2009), *The Coding Manual for Qualitative Researchers*. Saldaña suggested that the analytic approach to qualitative research must differ based on the study, as each is unique. The model of qualitative data analysis utilized in this study followed a codes-to-theory model, as outlined in Figure 3 (Saldaña, 2009, p. 12).

The codes-to-theory model suggests that researchers use codes to categorize the diversity of the data. Saldaña (2009) asserted that

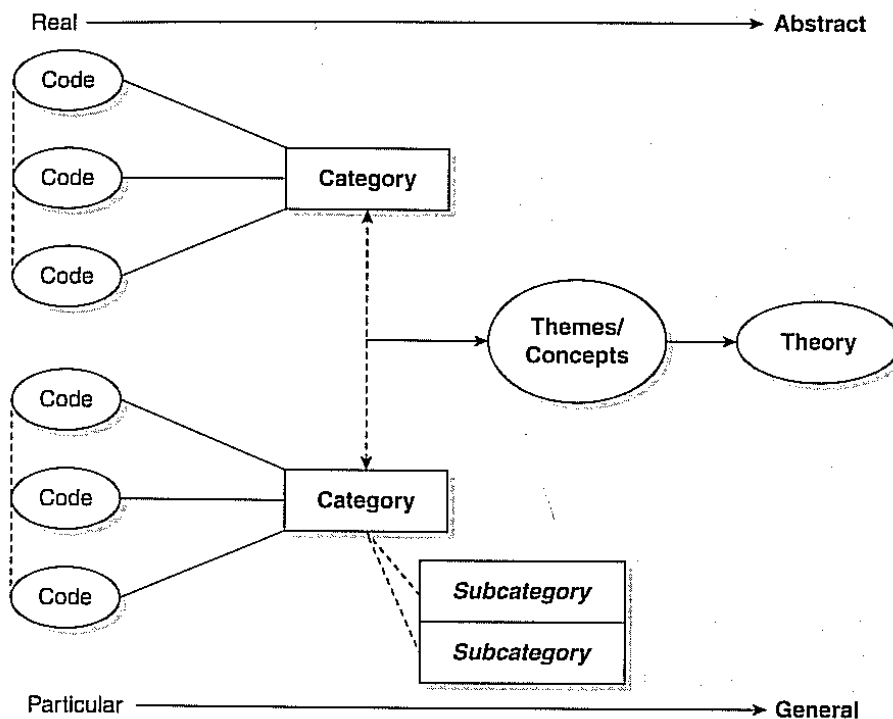
coding is a heuristic (from the Greek, meaning “to discover”) – an exploratory problem-solving technique without specific formulas to follow. Coding is only the initial step toward an even more rigorous and evocative analysis and interpretation for a report. Coding is not just labeling, it is *linking*: moving from the data to the idea. (pp. 7-8)

Codifying is described as putting something in order, patterning, or categorizing. A code is often a word or short phrase used to capture the essence of the data.

The use of coding methods results in lists of codes, which are then classified into clusters or categories. Once data is coded, and often recoded, and categorized it can be conceptualized, moving up to “more general, higher-level, and more abstract constructs” (Saldaña, 2009, p. 11). While the development of theory is the final section of the codes-to-theory model, Saldaña (2011) stated that “not every qualitative research project needs to construct an original theory. In fact, it is quite difficult to do, depending on the scope of the

study” (p. 121). That being said, it is important to acknowledge that pre-existing theories drive the research process and often inform coding processes.

Figure 3: Saldaña Qualitative Codes-to-Theory Model



Saldaña posited that there is no one *best* way to code qualitative data (2009). The author suggested the use of a “generic” combination of coding methods for the beginning qualitative researcher. This intro-generalist model was based off of several accepted qualitative research methods including case study, phenomenology, and grounded theory. Coding methods were chosen to best analyze the data and incorporate participant voice. As Saldaña (2011) recommended, the researcher utilized several first and second cycle coding methods, continuing to follow “a provisional, emergent, and evolutionary process” (p. 90). First cycle methods included *Structural*, *In Vivo*, and *Descriptive* coding. Secondary coding utilized *Pattern* coding.

Structural coding is a question-specific coding method that “acts as a labeling and indexing device, allowing researchers to quickly access data likely to be relevant to a particular analysis from a larger data set” (Namey, Guest, Thairu, & Johnson, 2008, p. 141). This form of coding is

appropriate for use in any study, but is specifically useful for research of an exploratory nature, involving hypothesis testing, and/or involving semi-structured interview data. In this method it is useful to keep track of the frequency of themes or ideas occurrence. This way “similarly coded interview segments would be collected together, then further coded and/or subcoded to extract data specific to the research questions” (Saldaña, 2009, p. 69). This method provides researchers with a broad overall or organizational outlook of the study.

The *In Vivo*, or verbatim, coding method utilizes words or phrases pulled directly from the language found in the data (Saldaña, 2009). Saldaña suggested that “In Vivo Coding is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies that prioritize and honor the participant's voice” (p. 74). As this study came from a social constructionist framework, the use of *In Vivo* coding was paramount to reflect the voices of the participants. This study was completed with school-aged children, a demographic that is often marginalized. Saldaña suggested that “coding with their actual words enhances and deepens an adult’s understanding of [children’s] cultures and worldviews” (p. 74).

Descriptive coding, or topic coding, is defined by Saldaña (2009) as summarizing “in a word or short phrase - most often as a noun - the basic topic of a passage of qualitative data” (p. 70). Descriptive coding is a useful method for nearly all qualitative studies “but particularly for beginning qualitative researchers learning how to code data” (p. 70). This form of coding provides an inventory or summary of the data. Saldaña asserted that descriptive coding “is essential groundwork for Second Cycle coding and further analysis and interpretation” (p. 72).

Attribute coding involves the notation “of basic descriptive information such as: the fieldwork setting, participant characteristics or demographics, data format, time frame, and other variables of interest” (Saldaña, 2009, p. 55). While this form of coding is useful for many studies, it is especially useful for research involving many locations, several participants, or those involving a large variety of data types. While attribute coding is a suggested method of first cycle coding, for the purposes of this study the researcher found this form of coding to be redundant due to the single location, small sample size, few data collection methods, and relatively homogenous demographic.

While first cycle coding methods “summarize segments of data... *Pattern coding* is a way of grouping those summaries into a smaller number of sets, themes, or constructs” (Miles & Huberman, 1994, p. 69). Pattern coding condenses the initial codes into more meaningful

representations, themes, and explanations – moving from codes and categories to constructs and themes. Pattern coding is appropriate for second cycle coding, examining relationship-based patterns, and the development of themes or explanations from the data (Saldaña, 2009). This method is used “as a stimulus to develop a statement that describes a major theme, a pattern of action, a network of interrelationships, or a theoretical construct from the data” (p. 154).

NVivo (QSR International, 2014), a computer assisted qualitative data analysis software program, was utilized throughout the coding and analysis process. It was especially useful for keeping track of the breadth of data sources and coding methods, making analysis flexible and user-friendly. Saldaña (2009) suggested several benefits to using qualitative data analysis software, such as NVivo. He stated that there are several functions that can be completed more easily in a digital format rather than by hand (such as overlapping coding, subcoding, and subsuming many subcodes into patterns). In addition, software such as NVivo allows for seamless integration of analytic memos and the ability to view the data from various coding stages and from a hierarchical standpoint. In preparation for analysis, interviews were transcribed verbatim from audio format and directly typed into the NVivo program. Researcher observations and document data were also typed into the program for analysis.

The software was used as a platform to code and recode the data using each of the above coding methods to arrive at patterns and themes. Analytic memos were utilized concurrently to coding in order to document and reflect on “ideas for analytic consideration” (Saldaña, 2009, p. 17), and to aid in making sense of the potential influences of the researcher within the study. The analysis involved aspects of both emic and etic approaches, working from both the ground up and top down to holistically recognise the experiences of the participants as well as researcher positionality and bias.

Quantitative Methods

A quantitative component was used within this research, despite its apparent contrast to the writer’s paradigmatic viewpoint, for several reasons. While the small sample size resulted in a lack of statistical power, the outcomes of the psychometric measures provided additional insight into the qualitative data. In addition, as this is a master’s level thesis, the use of quantitative methods provided the researcher with a learning opportunity. Cameron (2011) asserted that “mixed methods research provide[s] an excellent starting point and launch pad for those choosing to engage in mixed

methods research and needing to position their research approach paradigmatically” (p. 101). While the usage of quantitative methods was deemed useful for the researchers learning process, the researcher felt it imperative to position this research from a social constructionist paradigm.

Quantitative research questions and hypotheses.

- Are there significant measureable differences in children’s levels of “state anxiety” and “trait anxiety” pre- and post-intervention?

Hypothesis 1: Parent inclusion in mindfulness interventions would lessen children’s anxiety symptoms further than child attendance alone;

- Are there significant measureable differences in caregivers’, both participating and non-participating, levels of “state anxiety”, “trait anxiety”, and interpersonal mindfulness pre- and post-intervention?

Hypothesis 2: Parents who participated in the intervention would have larger reductions in anxiety symptoms and increases in interpersonal mindfulness, as opposed to their non-participating counterparts.

Design.

The quantitative methods utilized in this research consisted of a quasi-experimental non-equivalent group design, utilizing a battery of pre- and post-test psychometric measures. A detailed account of the measures utilized in this study is offered in the *Measures* section later in this chapter. The groups were quasi-experimental and non-equivalent, due to the (non-random) self-assignment of individuals to groups, and convenience based sampling method. Measures were completed in-person by parents and children at pre-test, prior to the initiation of the intervention. At the completion of the intervention child participants completed the post-test measures in-person. Parents had the option to complete the post-test measures in-person or anonymously through a SurveyMonkey digital survey.

Analysis.

SPSS 21 (IBM Corp, 2012) software was used to analyze the psychometric measures. To assess pre-treatment equivalence, independent samples *t*-tests were completed using the pre-test mean scores of both groups. Paired samples *t*-tests were completed to analyze differences between

pre- and post-treatment mean scores of the groups. The alpha level used to determine ‘statistical significance’ was $p \leq .05$.

The pervasive problem of missing data was dealt with as recommended by Spielberger, Gorsuch, Lushene, Vagg, and Jacobs (1983). For the purposes of analyzing data from the STAI and STAIC, Spielberger stated that if the participant left up to two blank answers per scale the researcher could fill in the anticipated response with the mean. This was echoed in the work of Tabachnick and Fidell (2001) who suggested that if the missing data was minimal and random in nature substitutions for data could be made or cases could be removed. With such a small sample ($n=16$), the removal of cases with missing data was not desirable. Tabachnick and Fidell recommended that with a small amount of randomly missing data the various options of substitution would likely result in similar scores (2001). In following, missing values were substituted with the mean score.

Measurement

In order to explore the impact of parent inclusion in the intervention, both groups completed pre-test and post-test interviews and a battery of psychometric measures. Measurement tools were used to gather data regarding children and caregivers’ perceived levels of anxiety, caregivers’ levels of interpersonal mindfulness, and caregivers’ and children’s perceptions of changes to the parent-child relationship and anxiety symptomology.

Psychometrics were administered in person and/or anonymously online. Parents were asked to complete the pre-test battery in person. Post-test psychometrics and qualitative questions were completed online through a survey, resulting in fewer responses in post-test than were collected in pre-test. Children completed both pre- and post-test psychometrics in person.

Quantitative measures: Psychometrics.

The variables explored through quantitative measures included anxiety, both state and trait categories, as well as interpersonal mindfulness. The variables were measured using three scales: the State Trait Anxiety Inventory for Adults (STAI), the State Trait Anxiety Inventory for Children (STAIC), and the Interpersonal Mindfulness in Parenting scale (IM-P).

State Trait Anxiety Inventory for Adults.

The State Trait Anxiety Inventory (STAI) is a self-report instrument that measures the intensity of anxiety symptoms in youth and adults (Spielberger et al., 1983). The measure consists

of two scales, differentiating between *state* anxiety and *trait* anxiety. State Anxiety is described as “subjective, consciously perceived feelings of apprehension, tension, and worry that vary in intensity and fluctuate over time” (Spielberger, Gorsuch, Vagg, & Jacobs, 1973, p. 1). Trait anxiety refers to the “relatively stable individual differences in anxiety proneness, that is, differences between children in the tendency to experience anxiety states” (p. 1).

Each subscale consists of 20 items rated on a four-point likert-type scale (Spielberger et al., 1983). Scores for the subscales vary from a minimum of 20 to a maximum of 80. The total score in each subscale indicates the intensity/frequency of the anxiety as well as the type of anxiety present. Scores at or above the 75th percentile indicate that the individual should make efforts to lower their anxiety level (Spielberger et al., 1983). The scale was originally developed for use with non-clinical adult populations, but has also proven to be a useful measure with clinical populations (Spielberger et al., 1983). The STAI has a fifth-grade reading level and is suggested to be suitable for persons aged 15 or older.

The STAI is one of the most frequently used measures of anxiety, with over 8000 studies referencing it (Groth-Marnat, 2009). It has been evaluated in reference to many anxiety related conditions and treatment models. It has also been translated into numerous languages and used in research across several cultures. The STAI has proven to have excellent test-retest reliability for trait anxiety, as well as very good internal validity. It has been shown to have very good content, construct, concurrent, and factorial validity.

The test-retest correlation for trait anxiety is quite high, ranging from .73 to .86 (Spielberger et al., 1983). State anxiety has an understandably lower test-retest reliability rate of .16 to .62 (median of .33). The lower range for state anxiety is expected due to the transitory nature of the construct. Given the variation of state anxiety, Spielberger et al. suggest that alpha coefficients provide a more meaningful demonstration of reliability than the test-retest correlations (1983). The median alpha coefficient for state anxiety is .93 and the median for trait anxiety was .90. Both alpha coefficients are quite high and demonstrate good internal consistency.

The validity of both state and trait scales are very good. Content validity of the STAI was tested by Okun, Stein, Bauman, and Silver (1996). They noted that five out of eight domains of a *DSM-IV* diagnosis of generalized anxiety disorder were reflected in the trait anxiety items. Concurrent validity has been assessed by comparing the STAI to other known anxiety measures

(Spielberger et al., 1983). High correlations with the *Manifest Anxiety Scale* and the *Anxiety Scale Questionnaire* ranged from .73 to .75. Moderate, yet still substantial, correlations were found with the *Worry Scale* ($r=.57$). Construct validity has also been demonstrated for both state and trait components. Spielberger et al. (1983) showed that psychiatric patients have higher scores on trait anxiety than non-clinical groups, except with patients with some specific disorders. Also, patients with anxiety disorders had slightly higher *trait* scores than patients without anxiety disorders. It was shown that students taking tests and military personnel undergoing stressful training have higher scores when compared to scores taken after relaxation techniques or with controls – demonstrating the transitory nature of state anxiety. Factorial validity was demonstrated through the comparison of the state and trait components. Spielberger et al. found that correlations between state and trait subscales generally fall between $r=0.70-0.80$. The STAI, like many other measures of anxiety and depression, is not a pure measure of anxiety, but measures a mix of anxiety and depression. Anxiety and depression have overlapping qualities. Correlations of anxiety and depression features typically range from $r=.45-.75$ (Groth-Marnat, 2009).

State Trait Anxiety Inventory for Children.

Studies regarding the mindfulness interventions with anxious children have frequently used the State Trait Anxiety Inventory for Children (STAIC) (Lee et al., 2008; Semple et al., 2010; Semple et al., 2005). The STAIC is a 40-item self-report questionnaire based on the STAI (Spielberger et al., 1973). It has been developed for use with grades four through six children, although it can be used with younger children with high reading comprehension abilities, or older youth with lesser comprehension ability. Similar to the STAI, the STAIC assesses two anxiety concepts: state anxiety and trait anxiety. State anxiety relates to how the child feels at a particular moment. Trait anxiety conveys how the child feels in general.

The scale's items are split into two measures consisting of 20 items, each rated on a three-point scale. Items related to state anxiety rate intensity, whereas items related to trait anxiety rate frequency. Raw scores fall between 20 and 60, with higher scores indicating greater anxiety. Semple et al. (2010) suggest that a *t*-score of 70 or greater on the STAIC demonstrates a clinically elevated anxiety score. The scale has high reliability and exemplary validity for school aged children (Spielberger et al., 1973). Internal consistency is fairly high. Alpha scores for state anxiety are .82 for males and .87 for females. Alpha scores for trait anxiety are .78 for males and .81 for

females. Test-retest reliability for state anxiety was expectedly low, .31 for males and .47 for females, due to the transitory nature of the construct. Test-retest reliability for the trait anxiety was moderate, .65 for males and .71 for females.

To demonstrate the concurrent validity of trait anxiety, the STAIC was tested for correlations with two well known anxiety measures for children: *Children's Manifest Anxiety Scale* ($r=.75$) and the *General Anxiety Scale for Children* ($r=.63$) (Spielberger et al., 1973). Construct validity for state anxiety was based on a sample of 900 students between fourth and sixth grade who completed the measure in a normal condition and then in test conditions. Spielberger found that the state anxiety scores from the test condition were significantly higher than that of the normal condition.

Interpersonal Mindfulness in Parenting Scale (Short Version).

The study of mindful parenting is in its infancy. While many mindfulness psychometric measures focus on the intra-personal components of mindfulness, how individuals relate to their internal experiences, very few related to interpersonal domains (Duncan, 2007). As children and parents relate through social interaction, it is important to recognize interpersonal mindfulness as an imperative component of mindful parenting. Interpersonal mindfulness may include the display of “awareness, non-judging, and low reactivity in social interactions” (Duncan, 2007, p. 14). A mindful approach to parenting has been suggested as a way to promote secure attachment relationships (Siegel & Hartzell, 2003).

The Interpersonal Mindfulness in Parenting Scale (IM-P) is one of the only empirical self-report measures of interpersonal mindfulness and mindful parenting currently available (Duncan, 2007). The measure was developed in order to measure the effectiveness of mindful parenting programs. It encompasses affective, cognitive, and attitudinal aspects of the parent-child relationship. The scale is intended to assess the parents’ ability to maintain present-centered attention, emotional awareness, non-judgment, and low reactivity in parenting. The IM-P measures interpersonal mindfulness through a 10-item five-point scale. The measure is split into three subscales: awareness and present-centered attention, openness and non-judgmental receptivity, and non-reactivity. After reverse scoring, items are tabulated. Higher overall scores indicate a greater degree of interpersonal mindfulness. The IM-P scale showed adequate reliability ($\alpha = .72$) and the awareness and present centred attention subscale also showed reliability ($\alpha = 0.61$) (Duncan, 2007).

Preliminary construct, convergent, discriminant, and concurrent-predictive validity have been demonstrated.

Research Process

Ethics approval for the study was attained prior to the commencement of the study through the University of Calgary *Conjoint Faculties Research Ethics Board* on March 4th, 2014. In March and April 2014, advertising materials for the Mindfulness Based Stress Reduction (MBSR) groups for children and parent-child dyads were developed. The researcher met with school administrators to gain approval for the implementation of the study and use of school space. Once administrators had approved the study, recruitment letters (Appendix C) were dispersed to all grade 4 and 5 children attending two local elementary schools. Parents who chose to take part in the study were asked to schedule a meeting with the researcher to complete the demographic information (Appendix F) and consent form (Appendix G). At that time parents also took part in a short screening interview and completed the pre-test psychometrics (Appendix J & K). After parent consent was received, children were interviewed at their school or home. The researcher and each child read and discussed the assent form (Appendix H) and the child indicated whether or not they wished to participate. Once assent was received, children completed a psychometric measure (Appendix I) and participated in a short interview.

Parents and children participating in both groups were interviewed separately in person prior to treatment, using semi-structured interview guides of the researchers design (Appendix D & E). Interviews were conducted prior to the intervention, as well as again after the eight-week group. In person interviews were recorded using a password-protected application on the researcher's iPhone with participant consent and/or assent. Interviews were later transcribed verbatim into the NVivo qualitative analysis computer program. Caregivers were given the choice of environment for the initial interviews. This was done in order to help make the participants feel at ease.

On April 10th, 2014 the researcher and her supervisor held a parent introductory evening to familiarise the school community with mindfulness, its application to children and anxiety, and the program being offered. For eight weeks, from May 1, 2014 – June 19, 2014, both the child-only (CO) and parent-child (PC) groups took place. The program closely followed the MBSR program for children and youth, *a Still Quiet Place*, as outlined by Saltzman (2014). The intervention was facilitated by the researcher in an appropriately furnished room at a local elementary school. Both

groups covered the same content and included eight 60-minute sessions. Each week children, and attending caregivers, were asked to participate in daily home practice. Home practice included a maximum of 15 minutes of formal/informal practice, six days per week. The researcher was supervised by Rachael Crowder PhD RSW, an experienced mindfulness practitioner and trained MBSR program instructor.

At the completion of the eight-week intervention, in June 2014, children were interviewed for a second time and asked to complete the post-test psychometric measure. Parents were asked to complete the post-test measures and qualitative questions either through an online survey or in person. Post-test measures were gathered and data analysis was initiated. Data analysis was carried out separately and concurrently, as established by W. E. Hanson et al. (2005) in his discussion of concurrent triangulation research design.

Sample

The study involved a convenience sample of grade four and five students and a small group of participating parents. Initial enrolment in the study included 11 children participating in the child-only group and 10 children and 9 parents in the parent-child group. After attrition, sixteen children (n=16) completed the mindfulness program, with ten participating in the child-only (CO) group and six in the parent-child (PC) group. Six parents completed the PC group and ten parents enrolled their children in the CO and chose not to actively participate. One parent in the PC group had two children attend the program and another child in the PC group had two parents attend the program. The participants were assigned to groups based on caregiver preference.

The non-clinical sample was based out of elementary schools in Lethbridge School District #51, who gave permission for this study to be completed (Appendix B). The sample consisted of children recruited from local elementary schools through self- or parent-referral. Inclusion criteria comprised of children being in grades 4 or 5, with no anxiety related clinical diagnoses, and no current or past experiences of mindfulness or contemplative practices. In order to examine the benefits of mindfulness as a prevention and early intervention strategy, participants with a current or previous clinical diagnosis of an anxiety related disorder were excluded from the study. Likewise, participants were excluded from the study if they had previously engaged in mindfulness programming.

Demographic information and psychometric data were collected from parents and children in the preliminary interviews in order to compare the two groups for equivalence. In preliminary interviews psychometrics were used to identify clinical anxiety levels in children. While the State Trait Anxiety Inventory for Children (STAIC) is not a clinical measure, researchers suggest that a *t*-score of 70 or more on the STAIC demonstrates a clinically elevated anxiety score (Semple et al., 2010). Information gathered included parent and child name, gender, age, racial/ethnic identification and previous contemplative practice experience. In addition, parents provided information regarding their household type/size, marital status, education, and approximate household income. Parent consent and child assent were required before taking part in the study.

Attrition.

During the progression of the eight-week program both groups had participants withdraw. Participants had to attend at least six of eight sessions to complete the program and have their data included in the study. The CO group had one child withdraw at week three due to heightened anxiety. The child expressed that participating in the group in a different school with unfamiliar peers led to strong feelings of discomfort and unease. The child wished to withdraw and the wish was honoured. The child-only group demonstrated much more regular attendance than the parent-child group, possibly because the child-only group took place right after school. Overall, three parents and four children withdrew from the PC group, leaving a total of 16 children and 6 parents who completed the program. Participating caregivers and children in the PC group expressed several reasons for leaving the program. Explanations included a major family emergency, family relocation, caregiver beginning a new job, and a lack of available childcare.

Adequacy of sample size.

A statistical power analysis was performed for sample size estimation, based on data from *Mindfulness Training as a Clinical Intervention: A Conceptual and Empirical Review* (Baer, 2003), a meta-analysis of mindfulness studies with adults. The meta-analysis suggested an effect size of $d = .59$ ($SD = .41$), considered to be a *medium* effect size using Cohen's (1977) criteria. With an $\alpha = .05$ and power = 0.80, the ideal sample size calculated with G*Power (Faul, Erdfelder, Lang, & Buchner, 2014) needed with this effect size is approximately $N = 74$, or 37 children per group.

Research was conducted despite the much smaller sample size for several reasons including the scope of the time and resources available to the student researcher and the limited time available

for scheduling within the school timetable for access to students and parents. As the sample size is well under the required size there was insufficient power to determine whether any non-significant findings were due to true non-significance of the intervention or whether it was due to having insufficient power.

Daly and Lumley (2002) describe qualitative sampling as “collecting a slice of life and taking it into the laboratory for dissection and analysis” (p. 299). Analysis starts immediately after enrolment, sorting “accounts into categories that can come from social theory, the literature review or from analysis of the data itself” (p. 299). If needed, researchers further recruit and enlarge the sample to the point of saturation, where enrolment is ceased as responses are similar in nature. Sometimes the first “slice of life” is all that is necessary, as the data provides similar responses that are congruent with relevant literature. The authors stated that achieving the ideal diverse sample might be difficult. Even if the sample is not saturated, the authors suggested that in qualitative research

the mutual trust established between researcher and participant contributes to the validity of the data. This takes time and may place practical constraints on sample size. Even if we fail to enrol more than a handful of participants, especially if the experience we are investigating is rare, this does not make the sample worthless. (p. 299).

In the case of the qualitative methods involved in this study, the “slice of life” ascertained was remarkably congruent in the similarity of responses. The mutual trust established between the facilitator and the children and participating parents was considerable, and contributed to the validity of the data. While additional groups would likely have led to further saturate the data available for analysis, this was not possible within the constraints regarding time and scheduling.

Demographics.

Of the 16 enrolling parents whose children completed the program, all were between the ages of 30 and 49. The researcher acknowledges that collecting actual ages, instead of using categories, would have resulted in more useful data. The genders of parents in the PC group included one male and five females. The genders of enrolling parents in the CO group included one male and nine females.

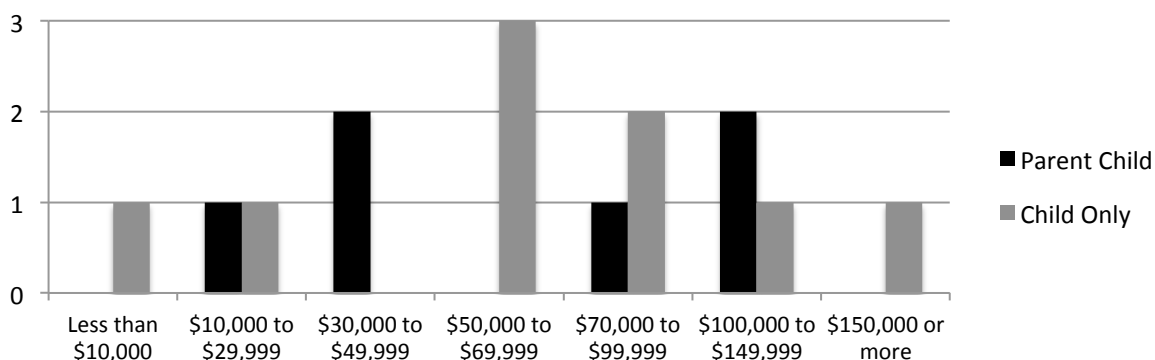
Parents in both groups had similar ethnic backgrounds and consisted mainly of Caucasian participants. In the PC group parents described their ethnicity as Caucasian (4), Canadian/Spanish (1), and Japanese Canadian (1). Parents in the CO group described their ethnicity as Caucasian (8), Caucasian/Asian (1), and Japanese Canadian (1).

The two groups differed in the area of marital status. The parents in the PC group were either married (5) or common law (1). Parents of the CO group reported being married (6), common law (2), divorced (1), and separated (1). This difference was echoed in family household types. The PC group consisted solely of two partner households (6). The CO group included two partner (7), mother only (2), and blended family (1) households. This difference may have influenced the caregivers' decision regarding group choice.

The average number of parents and children in the household was similar for both groups. Average numbers of adults per household was 2 for the PC group and 1.9 for the CO group. Average numbers of children were 2.8 for the PC group and 2.6 for the CO group. The average ages of children participating in the groups were also very similar. The PC group consisted of 2 boys and 4 girls and the average age of children was 9.5. The CO group consisted of 5 boys and 5 girls and the average age of children was 9.9.

Parent education differed between groups. The CO group had received less education than the PC group. Sixty percent of CO parents disclosed that they had received "some college" or less education versus 33% of the PC group. Likewise, 33% of the PC group had received a university degree or higher versus 20% of the CO group. The opportunities for education may have been related to other factors, such as income level, marital status, and household composition.

Figure 4: Average Income



Average income differed between groups, with the CO group having the greatest range of incomes. Incomes of the CO group ranged from less than \$10,000 to \$150,000 or more. The mode income range for the CO group was \$50,000 - \$69,999. The income of the PC group ranged from \$10,000 - \$29,999 to \$100,000 - \$149,999, with the mode income ranges being \$30,000 - \$49,999 and \$100,000 - \$149,999. See Figure 4 for a further breakdown of income.

Parents and children in both groups were similar in their experiences of contemplative practices. Parents in the PC group had previously tried meditation (2), yoga (3), and a brief introduction to mindfulness (1). Parents in the CO group had previously tried meditation (1) and yoga (6). It is possible that the PC parent's previous introduction to meditation practices may have increased their desire to enrol in the parent-child group. No children had previously engaged in mindfulness or meditation. Three children had previously tried yoga in the PC group and two from the CO group. Prior to discussing results, the pre-treatment equivalency of the groups will be determined.

Chapter 5: Results

Pre-Treatment Equivalency

Pre-treatment equivalency was discerned through demographic information, pre-test psychometric measures, and qualitative interviews. Overall the data collected appeared to suggest that the groups were similar at pre-treatment but not equivalent. Important similarities and differences between the groups were evident in all data collection streams.

Demographics.

Demographic information showed that parents and children in both groups had some similarities (parent age, gender, household size, and ethnicity) but also some noteworthy differences. The parents of the CO group had received less education and had a more varied average income than the parents of the PC group. Unlike the PC group, which consisted solely of two parent families, the CO group included single parent and blended families. The difference in family type may have had an impact on the caregivers' support systems and choice of group. Demographically, children seemed to be similar at pre-treatment. Children's ages, genders, and contemplative experiences were fairly equal.

Children's diagnoses and health concerns were also similar. Both groups included two children diagnosed with ADHD. Both groups had parents report that children had "behavioural problems" at home. The CO group had parents report that one child had "mild depression" and another had "moderate anxiety". Neither of the parents' statements were verified by a doctor or paediatrician.

Children were asked about any substantial life changes, both positive and negative, that had occurred over the course of the program. The PC group reported just one positive change, a surprise trip to Disney Land. The CO group reported one positive change, also a trip to Disney Land, and two negative changes, a flooded home and a caregiver with a broken tailbone.

Psychometrics.

The psychometrics utilized in this study pertained to state and trait anxiety symptoms of children and parents as well as the parent's levels of interpersonal mindfulness. To assess pre-treatment equivalence, independent samples t-tests were run using the pre-test mean scores of both groups (Table 2). Norms and mean scores are presented as raw scores. Available mean T-scores are

also presented. Norm T-scores for the STAIC/STAI have a mean of 50 and a SD of 10 (Spielberger et al., 1973).

Table 2: Independent Samples *t*-Tests: Pre-treatment Group Means and Norms

Variable	Norm	Parent/Child				Child Only				t-test		
		<i>n</i>	<i>M</i> <i>Raw Score</i>	<i>M</i> <i>T Score</i>	<i>SD</i>	<i>n</i>	<i>M</i> <i>Raw Score</i>	<i>M</i> <i>T Score</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
STAI St	~ 36	4	37.0000	~ 51	6.13188	4	39.6667	~ 51	12.78541	-0.402	5	.704
STAI Tr	~ 36	4	46.8333	~ 62	9.78604	4	45.1667	~ 57	10.36179	0.297	5	.778
IM-P		6	31.3333		4.03320	6	35.0000		1.41421	-2.015	5	.100
IM-P APCA		4	13.0000		1.67332	4	14.1667		1.32916	1.659	5	.158
STAIC St	~ 31	6	27.6667	~ 46	3.44480	6	28.3333	~ 48	2.87518	-0.312	5	.768
STAIC Tr	~ 37	6	32.8333	~ 44	6.64580	6	41.1667	~ 54	8.08497	-2.478	5	.056

Note: Alpha level .05, two-tailed.

STAI = State Trait Anxiety Inventory: St = State Scale; Tr = Trait Scale

IM-P = Interpersonal Mindfulness in Parenting Scale: APCA = Awareness and Present-Centered Attention Subscale

STAIC: State Trait Anxiety Inventory for Children: St = State Scale; Tr = Trait Scale

STAI: State scale.

The results of the STAI State subscale indicate that the mean scores of the Parent/Child group at pretest (M=37.0000, SD= 6.13188) showed no significant difference to the mean scores of the Child Only group at pretest (M=39.6667, SD= 9.78604), $t(5) = -0.402$, $p = .704$.

STAI: Trait scale.

The results of the STAI Trait subscale indicate that the mean scores of the Parent/Child group at pretest (M=46.8333, SD= 9.78604) showed no significant difference to the mean scores of the Child Only group at pretest (M=45.1667, SD=10.36179), $t(5) = 0.297$, $p = .778$.

IM-P.

The results of the IM-P scale indicate that the mean scores of the Parent/Child group at pretest (M=31.3333, SD= 4.03320) showed no significant difference to the mean scores of the Child Only group at pretest (M=35.0000, SD=1.41421), $t(5) = -2.015$, $p = .100$.

IM-P APCA.

The results of the IM-P Awareness and Present-Centered Attention Subscale indicate that the mean scores of the Parent/Child group at pretest (M=13.0000, SD= 1.67332) showed no

significant difference to the mean scores of the Child Only group at pretest ($M=14.1667$, $SD=1.32916$), $t(5)= 1.659$, $p= .158$).

STAIC: State scale

The results of the STAIC State subscale indicate that the mean scores of the Parent/Child group at pretest ($M=27.6667$, $SD= 3.44480$) showed no significant difference to the mean scores of the Child Only group at pretest ($M=28.3333$, $SD=2.87518$), $t(5)= -0.312$, $p= .768$).

STAIC: Trait scale

The results of the STAIC Trait subscale indicate that the mean scores of the Parent/Child group at pretest ($M=32.8333$, $SD= 6.64580$) showed no significant difference to the mean scores of the Child Only group at pretest ($M=41.1667$, $SD=8.08497$), $t(5)= -2.478$, $p= .056$).

None of the independent samples *t*-test scores showed significant differences between groups ($p \leq .05$), suggesting that the two groups had similar levels on all variables prior to the intervention. One of the major limitations of this study is small sample size, which very likely influenced the ability to show significance.

Qualitative data.

Similarities and differences in children's and parents' anxiety levels, triggers, and symptoms were noted. During the pre-test interview children provided examples of anxiety inducing scenarios or stressors. Both groups of children discussed five common subjects of worry including decision-making, family dynamics, friendships and peers, safety of self and others, and school work (Muris, 2007). These anxieties were developmentally appropriate and represented consistently in both groups.

Parents in the PC group observed these same triggers in their children. Parents in the CO group observed the same triggers as well as additional ones children didn't mention. When asked about their personal symptoms of anxiety, children in the PC group were able to clearly articulate the symptoms they faced, including physiological and emotional responses, and their ways of coping. A child in the PC group expressed "when I worry or get stressed out I get a little shaky and I worry that I am going to get in trouble even though it doesn't have anything to do with getting in trouble and my heart beats a little faster." The CO children described their emotional, physiological, and behavioural responses to anxiety with both similar and unique descriptions. For example, a child in the CO group stated, "well, I kind of get a bit shaky and I kind of feel very tired and stuff..."

I sometimes feel like I can't do things anymore." Other children suggested that they "shut down", "feel like I just collapse", "want to curl up", and "want to hide." Children in the CO group discussed somatic anxiety complaints such as feeling ill, exhausted, and noticing tingling or "weird" feelings in the body. In addition, they reported feeling confused and concerned about how to deal with anxiety. One child expressed, "I feel kind of like confused cause I don't know what to do about [my anxiety]." Another stated, "sometimes I am like 'oh my gosh I don't know what I'm gonna do'." Parents of both groups described observations of their children verbalizing concerns and displaying non-verbal cues, physiological signs, and problem behaviours indicating issues with anxiety.

Parents were asked about their own anxiety in relation to their child(ren). Parents of both groups discussed their worry regarding the child's safety and wellbeing, social skills and peer acceptance, as well as ability to make healthy future choices. Several parents were anxious that their child was, or had the potential to be, a "people pleaser" or a "follower." Unique worries were found in parents of both groups. Parents in the CO group additionally reported that they were anxious about their child's self-confidence and ability to communicate emotions in healthy ways. The PC group parents were anxious about the effectiveness of their parenting and the possibility that they may be contributing to their child's anxiety. This aspect of self-doubt or self-blame may have influenced these parents' decision to participate in the PC group of the study.

As noted in previous chapters, parent anxiety can have significant impacts on children's anxiety levels and negative cognitive (interpretation) bias (Affrunti & Ginsburg, 2012). While parents in both groups reported high levels of anxiety, the way anxiety was perceived by the parents may have reflected the differing worries regarding their children. Parents choosing to participate in the PC group demonstrated more awareness of their anxieties and chose to be actively engaged in addressing their own anxiety in addition to that of their child. This consistent modelling of self-regulation may have lead to disparities in the transmission of interpretation biases as compared to the parents in the CO group.

Equivalency conclusions.

The two groups of participants were not the same at pre-treatment. Psychometric, demographic, and narrative accounts suggest that the CO group children were more anxious at pre-treatment and came from different family demographics. It appears that the parents who chose to

participate, and those who did not, also differed. While both groups of parents had high scores of trait anxiety, the stressors and observations of anxiety differed between groups. The reasoning for parent choice of group and possible barriers to parent/family participation in mindfulness interventions was not explored with the parents during the interview process.

Post-Treatment Quantitative Results

The quantitative results of this study are organized by research question. Quantitative research questions and hypotheses included:

- Are there significant measureable differences in children’s levels of “state anxiety” and “trait anxiety” between groups pre- and post-intervention?
- Are there significant measureable difference in caregivers’, both participating and non-participating, levels of “state anxiety”, “trait anxiety”, and interpersonal mindfulness pre- and post-intervention?

Changes in child anxiety symptoms.

As noted in the Chapter 4, anxiety symptoms in the children were measured with the STAIC. The results of the paired samples *t*-tests are listed in Tables 3 and 4.

Table 3: Child Paired Samples *t*-Tests: Child Only (CO) Group

Variable	Norm	Child Only PRE			Child Only POST			t-test			
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
STAIC St	~ 31	10	28.6000	3.13404	10	28.5000	5.31769	0.095	9	.625	0.0229
STAIC Tr	~ 37	10	40.0000	6.58281	10	34.3000	4.32178	2.811	9	.020	0.3789

Note: Alpha level .05, two-tailed.

STAIC: State Trait Anxiety Inventory for Children: St = State Scale; Tr = Trait Scale

Table 4: Child Paired Samples *t*-Tests: Parent/Child (PC) Group

Variable	Norm	Parent/Child PRE			Parent/Child POST			t-test			
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
STAIC St	~ 31	6	27.6667	3.44480	6	26.5000	2.66458	0.520	5	.625	1.0236
STAIC Tr	~ 37	6	32.8333	6.64580	6	30.6667	5.39135	0.743	5	.491	0.3579

Note: Alpha level .05, two-tailed.

STAIC: State Trait Anxiety Inventory for Children: St = State Scale; Tr = Trait Scale

A paired samples *t* test was conducted to evaluate any change in childhood self-reported anxiety symptoms on the STAIC subscales, state and trait, from pre-test to post-test following participation in the mindfulness groups.

STAIC: State scale.

The results indicate that the mean scores for the child-only (CO) group on the **state** anxiety pre-test ($M=28.600$, $SD= 3.134$) showed no statistically significant change to the mean scores on the post-test ($M=28.500$, $SD =5.317$), ($t(9)=0.095$, $p=0.625$ two tailed). Results for the children in parent/child (PC) group on the state anxiety pre-test ($M=27.667$, $SD= 3.445$) showed a decrease with no statistically significant change to the mean scores on the post-test ($M=26.500$, $SD =2.665$), ($t(5)=0.520$, $p=0.625$ two tailed).

STAIC: Trait scale.

The results of the trait anxiety subscale indicate that the mean scores for the CO group at pre-test ($M=40.000$, $SD= 6.583$) **showed significant change** to the mean scores on the post-test ($M=34.300$, $SD =4.322$), ($t(9)=2.811$, $p=0.020$ two tailed). However, Cohen's effect size value ($d = .38$) suggested medium practical/clinical significance. Results for the child-parent group on the trait anxiety pre-test ($M=32.833$, $SD= 6.646$) showed no statistically significant change in the mean scores on the post-test ($M=30.667$, $SD =5.392$), ($t(5)=0.743$, $p=0.491$ two tailed).

In summary, the STAIC findings showed that post-treatment the state anxiety mean scores remained stable in the CO and PC groups. Statistical significance was found in the decrease in CO group trait anxiety scores post-treatment with a small-to-medium effect size.

Changes in caregivers.

The battery of psychometric measures completed by caregivers assessed changes in the their symptoms of anxiety and interpersonal mindfulness in parenting. Paired samples *t* tests were conducted to evaluate changes in parent self-reported anxiety symptoms on the STAI subscales, state and trait, as well as to evaluate changes to interpersonal mindfulness in parenting (and thereby assess attachment) on the IM-P scale and Awareness and Present-Centered Attention Subscale. The results of the paired samples *t*-tests are listed in Tables 5 and 6. Norms and mean scores are presented as raw scores.

Table 5: Caregiver Paired Samples *t*-Tests: Child Only (CO) Group

Variable	Norm	Child Only PRE			Child Only POST			t-test			<i>d</i>
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	
STAI St	~ 36	5	36.8000	11.94571	5	38.0000	7.54983	-0.150	4	.888	-0.120
STAI Tr	~ 35	5	41.6000	6.22896	5	44.4000	7.56968	-0.585	4	.590	-0.403
IM-P		5	35.4000	1.14018	5	37.0000	2.44949	-1.725	4	.160	-0.8374
IM-P APCA		5	14.4000	1.34164	5	14.6000	1.51658	-0.302	4	.778	-0.1397

Note: Alpha level .05, two-tailed.

STAI = State Trait Anxiety Inventory: St = State Scale; Tr = Trait Scale

IM-P = Interpersonal Mindfulness in Parenting Scale: APCA = Awareness and Present-Centered Attention Subscale

Table 6: Caregiver Paired Samples *t*-Tests: Parent/Child (PC) Group

Variable	Norm	Parent/Child PRE			Parent/Child POST			t-test			<i>d</i>
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	
STAI St	~ 36	4	36.0000	6.92820	4	44.7500	11.78629	-1.079	3	.360	-0.905
STAI Tr	~ 35	4	45.5000	12.28821	4	43.7500	10.87428	0.173	3	.874	0.1508
IM-P		4	30.7500	4.92443	4	35.0000	6.63325	-1.199	3	.317	-0.7276
IM-P APCA		4	12.7500	2.06155	4	14.7500	1.50000	-3.464	3	.041	-1.1092

Note: Alpha level .05, two-tailed.

STAI = State Trait Anxiety Inventory: St = State Scale; Tr = Trait Scale

IM-P = Interpersonal Mindfulness in Parenting Scale: APCA = Awareness and Present-Centered Attention Subscale

STAI: State scale.

The results indicate that there was an increase in levels of state anxiety in both parent groups. The mean scores for the child-only group on the state anxiety pre-test ($M=36.800$, $SD=11.946$) showed no significant change to the mean scores on the post-test ($M=38.000$, $SD=7.550$), ($t(4)=-0.150$, $p=0.888$ two tailed). Parents of the child-parent group on the state anxiety pre-test ($M=36.000$, $SD=6.928$) showed no significant change to the mean scores on the post-test ($M=44.750$, $SD=11.786$), ($t(3)=-1.079$, $p=0.360$ two tailed).

STAI: Trait scale.

The results of the STAI trait anxiety subscale indicate that the mean scores for the parents of the child-only group at pre-test ($M=41.600$, $SD= 6.229$) showed no significant change to the mean scores on the post-test ($M=44.400$, $SD =7.570$), ($t(4)=-0.585$, $p=0.590$ two tailed). Results for the

caregivers in the child-parent group on the trait anxiety pre-test ($M=45.500$, $SD= 12.288$) also showed no significant change in the mean scores on the post-test ($M=43.750$, $SD =10.874$), ($t(3)=0.173$, $p=0.874$ two tailed). It is interesting to note that the trait anxiety levels of both groups of caregivers were above the 75th percentile. The STAI manual states that participants with score at or above the 75th percentile should make efforts to lower their anxiety level (Spielberger et al., 1983).

IM-P and IM-P APCA.

The level of interpersonal mindfulness in parenting (IM-P) was measured to assess changes in the parents' ways of relating to their children. The results of the IM-P scale indicate that the mean scores for the parents of the child-only group at pre-test ($M=35.400$, $SD= 1.140$) increased but showed no significant change to the mean scores on the post-test ($M=37.000$, $SD =2.450$), ($t(4)=-1.725$, $p=0.160$ two tailed). Results for the child-parent group on the IM-P pre-test ($M=30.750$, $SD= 4.924$) also increased but showed no statistically significant change in the mean scores on the post-test ($M=35.000$, $SD =6.633$), ($t(3)=-1.199$, $p=0.317$ two tailed).

The results of the IM-P Awareness and Present-Centered Attention Subscale indicate that the mean scores for the parents of the child-only group at pre-test ($M=14.400$, $SD= 1.341$) showed no significant change to the mean scores on the post-test ($M=14.600$, $SD =1.516$), ($t(4)=-0.302$, $p=0.778$ two tailed). Results for the child-parent group on the IM-P pre-test ($M=12.750$, $SD= 2.062$) did show significant increase in the mean scores on the post-test ($M=14.750$, $SD =1.500$), ($t(3)=-3.464$, $p=0.041$ two tailed), with a large effect size ($d = -1.11$).

In summary, results suggested that the pre-treatment mean scores for state anxiety of caregivers in both groups was near the norm. Results suggested that parents in both groups had considerably high trait anxiety at baseline, with no statistically significant change at post-test. The high trait anxiety scores of parents in both groups suggest that parents may have struggled with heightened anxiety symptoms at pre-test and at post-test.

Parents in the CO group and the PC group demonstrated no statistically significant changes in the general IM-P scale. Parents in the CO group remained virtually stable pre- to post-treatment on the IM-P APCA subscale. Parents in the PC group's mean scores significantly increased in the IM-P APCA subscale.

Post-Treatment Qualitative Results

The qualitative results of this study are organized by major qualitative categories and themes. Major categories/themes included: Learned Skills and Emotional Awareness; Understanding, Awareness and Choice; Relationship Building, Support and Well-Being; and Communication, Integration and Relational Wellness. In addition to the qualitative themes, perceptions regarding the impact of the intervention on parent-child relationships will also be explored.

Changes in child anxiety symptoms: Learned skills and emotional awareness.

Changes in children's anxiety symptoms were explored through interviews, including children's first-hand accounts and parents' descriptions of behaviours. Children in both groups reported reduced anxiety symptoms in general, as well as in several specific areas. All of the children in the PC group reported that they were generally less anxious overall and nine out of the ten children in the CO group reported a reduction in anxiety symptoms. Specific anxiety reduction areas included home, school, and in relationship with others. Children suggested that these reductions were due to the skill building related to relaxation strategies and focus.

Both groups suggested that there was a reduction in their anxiety symptoms related to home and school. One child stated, "there's not so much anger in the house anymore. There's lots more calmness, which I'm happy about." Another child discussed the impact on school, saying "I used to be really worried at school. I'm not anymore." When asked what was different, the child suggested, "I really don't know. Somehow I feel more confident in things."

In addition, the CO group reported reduced worry related to peers and friendships. A child said, "This group was helpful with all the stress with friends." Another added, "I don't have as many anxiety attacks and if people are being rude to me [at school] I know what to do."

Children in both groups reported that they had learned skills to relax and focus their attention. This was exemplified in the following statement, "I think it helped me relax more and focus more. Before I couldn't really focus in the first couple classes, but then when I got into it I felt more relaxed, more focused. And I thought that it would lead me to a good start."

The children in the PC group discussed having an increased emotional awareness. A child said, "usually, before I went [to the group], I got really mad... I couldn't face my problems that good. And now that I actually learned to face my problems I don't get so mad or angry or upset."

Parents noted similar observations. Both groups of parents suggested that their children were more aware of their emotions. A parent stated, “she stops and thinks before she reacts negatively. Also, we can talk about her behaviour.”

While a few parents in the CO group were unsure of the impact of the group on their child’s anxiety symptoms, others suggested that their child’s anxiety symptoms were reduced and that they were calmer. A parent suggested that children “came home from the class calm and very relaxed. It was a good reference point for what a calm state feels like.” Another parent stated that their child was “generally less anxious about daily activities but still stressed in certain situations.” A third parent stated that their child was “able to think positively in situations without over reacting.”

Parents in the PC group reported that their children had gained skills in working through anxious feelings and were better able to communicate those concerns. One parent suggested her children now have “the language to discuss worries and see them as normal. They have tools to deal with the worry and often say they are breathing or being mindful.”

In summary, the interviews of children and parents reported much improvement in children’s anxiety symptoms over the course of the eight weeks in general and in specific areas including home, school, and in relationship with peers. Parents noticed children demonstrated increased emotional awareness and skills to calm themselves and deal with their anxiety.

Changes to caregivers: Understanding, awareness, and choice.

Changes to caregivers were also assessed through interviews. Both attending and non-attending parents reported personal changes they associated with the intervention through the post-test survey. The parent groups had similarities and differences in experiences. Both parent groups suggested that they had developed a new awareness of their child’s feelings. Parents in the CO group expressed a sense of openness to new understanding, stating: “we have been more understanding and patient while listening to our child's concerns”. This sentiment was echoed in another parent’s comment, “I tried to be more understanding of my child's needs in terms of dealing with stressful situations.” Parents in the PC group also repeated this theme, stating that they “were able to communicate with each other in a more positive way” and “be more understanding of [the] child's feelings.” An additional parent in the PC group stated: “I try to be more aware of what they are thinking when I am handling problems.”

Some parents of the CO group explained that they had developed tools and strategies from their children. A parent said, “I was relieved that [my child] may have positive guidance with her anxiety and practicing with her helped me cope with my anxiety as well.” This statement was repeated by another non-attending parent who suggested, “having tools and ideas to implement in daily life was great.” It appears from these comments that some parents, while not participating in the group itself, participated from home. One parent from the CO group stated that they did not notice any personal change over the course of the program.

In addition to recognizing children’s feelings, the parents in the PC group discussed a greater awareness of their own feelings and choices. One parent discussed the importance of her own awareness, stating, “I notice when I need to take a minute to breathe. I also notice more often when we are so rushed in daily life that I don’t take the time to notice the beauty and fun.” Another said, “[the group] helped me think more accurately and identify how I was really feeling in situations and act accordingly. I felt more present in the moment.” These statements suggest gains in intrapersonal and interpersonal mindfulness. Parents also discussed an increase in their communication, stating that the group was a “great tool to help communicate.” It was also expressed that the group increased caregivers’ confidence in parenting. One parent stated, “I feel more positive and confident in parenting my child.”

In summary, the majority of parents, in both groups, reported personal benefits to the interventions. While both attending and non-attending parents expressed that they had developed a more intentional awareness and understanding of their child’s needs and feelings, the changes parents reported were largely unique. While some parents whose children attended the CO group perceived no change, other parents described the child teaching them the strategies they had learned and the parent practicing alongside from home. Parents who attended the PC group reported an increase in self-awareness and personal insight.

Parent inclusion: Relationship building, support, and parent wellbeing.

It was important for this study to assess children’s perceptions of the benefits and drawbacks of parent inclusion in the intervention. Children in the PC group reported based on their experiences in the group. Children in the CO group reported their perceptions of what the impact would have been had their parent participated. Both groups reported the three same benefits. Parent inclusion did, or would have, (1) enhanced parent-child relationships, (2) provided support for the child in

learning skills to cope with anxiety symptoms, and (3) helped the parent learn skills for their own wellbeing. Both groups had a few children who were unsure of the impact their parent made, or would have made, on their experience. One child in the CO group responded that it would have been the same with or without their parent's direct participation.

Children in the PC group discussed the benefits of having their parent there. Many of the children said their parents were less stressed since the program began. One child said her mother "wasn't as much stressed as she usually was." Another child expressed the appreciation for companionship, saying, "I kind of liked it, so I didn't really feel lonely." An additional child suggested that it was helpful for her learning. She stated, "Since she was there she actually kind of understands and she knew what to do and she knew how to help me too."

Children in the CO group suggested a few possible negative aspects to parent participation. Children acknowledged that if their parent had participated they might have been less comfortable sharing openly and that they would have felt pressured to focus and participate. One child said she would not be comfortable sharing if her mother was there. Another suggested that while he wouldn't want to attend with his mother, it would be beneficial if they attended separately. He stated "maybe I do it once and she does it at different times." Children suggested that the pressure to focus and behave would have been a drawback. One child remarked, "she might've just pressured me and pressured me to start doing the things..." Another said "she would just have been normally like, *listen to the teacher*."

Children in the PC group did not report any drawbacks to their parent's attendance. The three areas of impact offered by the children who participated in this study – changes in the child's ability to cope with anxiety symptoms, the parent's wellbeing, and in the parent/child relationship – are documented in more detail in the following chapter.

Impact on relationship: Communication, integration, and relational awareness.

Children and caregivers were given opportunities to describe their perceptions of the impact of the groups on their relationships through the interview process. Children in both groups discussed experiencing less anxiety related to family dynamics and familial relationships. Children described their homes as calmer and their relationships, with their parents in particular, as improved.

Children reported having healthier communication with their parents. Children described being able to positively impact their relationships in their families. One child said, “Before I went to the group everything was total madness at home when I went there. Everyone was crying when I got home and everyone was fighting. And then when I went in the group I calmed down and was bringing joy to the family – and it’s all fine now.” Other children said they could “just kind of leave it alone”, take time to cool down in their room, or “just take 5 minutes.” Both groups of children discussed having an increased awareness of other family member’s feelings.

Parents described a change in communication with their children. A parent stated, “my child was able to express some of her feelings more clearly to her family members.” Another reflected that her child “communicates more and I see confidence in her!” Parents suggested that their children’s increased ability to express feelings allowed them more opportunities for sharing and understanding.

Parents in the PC group described some additional benefits of the group concerning their relationship with their child. One parent said, “It was nice to have a bonding experience... We have always been close, but one-on-one time was nice.” Some parents suggested that they had integrated the approach with the whole family. A parent stated, “I feel more calm, I think that has an effect on my family.” Another parent said, “We are more intentional to set aside time to be aware and relax.” Parents asserted that the increased awareness of feelings was mutual. One parent said, “[my children] keep me in check too! They often remind me to be mindful when we are eating quickly or getting frustrated. They enjoy the time listening to the CD and initiate it on their own. They join me during my yoga videos sometimes.” Another said they were “more aware of each others feelings and [that] communication has improved.”

Children and parents described significant changes in their familial relationships over the eight weeks of the program. Both groups of parents and children described having an increased awareness of other family members’ feelings and needs. Parents in the PC group reported feeling more calm, taking time to bond with their children, and intentionally setting aside time to be mindful. Despite both groups suggesting that the intervention had an evident influence on their familial relationships, relationships with siblings remained contentious.

Chapter 6: Discussion

This chapter will discuss the inferences of the post-treatment findings, propose a mechanism of change, and explore limitations.

Children's Anxiety Symptoms

The STAIC findings showed that post-treatment the state anxiety mean scores remained relatively stable in the children in both group. Statistical significance was found to have decreased in CO group trait anxiety scores post-treatment. The PC group scored below the norm on both state and trait anxiety measures at baseline, while the CO group showed moderately elevated trait anxiety at baseline, which was reduced to a low level at post-intervention. This is an interesting result, as state anxiety is the more transient of the two constructs and has a lower degree of test-retest reliability (Spielberger et al., 1973). This result may be explained by the difference in the group demographics. The PC group demographic data suggested that they might have been more resourced than the CO group. All of the children in the PC group had two parents living in their homes and reported higher parent education.

Lee et al. (2008) and Semple et al. (2005) reported difficulties in interpreting the STAIC results when working with normative levels of anxiety. While a greater change was seen in the CO group through the STAIC measure, it appeared that the groups were not equivalent at pre-test, making comparison difficult. The STAIC results may be linked to parents' reported frequency of child anxiety and the inequality of the groups in the narrative data. Similar to the STAIC output, 60% of the PC group children were observed by parents to be anxious weekly or more often and 30% rarely were observed as anxious. Caregivers of the CO group reported higher observations of anxiety, with 100% of children observed as anxious weekly or more often.

While the psychometric results showed that the PC group maintained already low anxiety scores and the CO group reduced in trait anxiety, the interview data showed that all but one of the children expressing that their anxiety was reduced. The children from both groups proposed that their anxiety was lessened at home, school, and with peers. Parents also noted changes in their children including increased calm, positive thinking, and communication of their emotions, and decreased anxiety. It appears that both groups of children learned skills to alleviate their anxiety symptoms, whether caregivers were present or not. It was noted in post-intervention interviews that some parents practiced alongside their children at home. As noted in previous chapters, it is difficult

to determine the extent of the participation of the CO parents. It is unclear what affect the informal mindfulness practice of some CO group parents had on children's outcomes. That being said, children expressed that parent's active participation was, or would have been, greatly beneficial.

Children in the CO group suggested that if caregivers had been present they would have felt more supported and been able to be more attentive in learning and practicing the intervention strategies. Children in the PC group proposed that having their parent attend led to both an increase in support and attentiveness. Children's narratives suggested that caregiver attendance might increase the effectiveness of the intervention in reducing childhood anxiety.

Caregiver Anxiety Symptoms

Baseline mean scores for STAI state anxiety scores for caregivers in both groups was near the norm, and at post-treatment the caregivers in the PC group had an increased score with a large effect size. Though impossible to say, it may be that the additional hassle of a weekly mindfulness group may account for this increase, and paradoxically it is in contrast to the clinically significant decrease in the state anxiety mean score of the children of those parents post-treatment. It is interesting to note that the trait anxiety levels of all caregivers in this study were maintained at moderately elevated levels –non-attending parents rated within the 72th-83rd percentile and the attending parents within the 80th-86th percentile. The STAI manual suggests that participants with score at or above the 75th percentile should make efforts to lower their anxiety level (Spielberger et al., 1983). The maintenance of anxiety symptoms by attending parents at post-test may be due to many reasons. Allen et al. (2006) suggest that a paradoxical increase or maintenance of anxiety symptoms “may perhaps be regarded as essential components of the meditation experience, in that it is the process of observing both positive and negative experience in a non-judgmental manner that is a core aspect of mindfulness practice” (p. 290). This paradox may have had an impact on the participant's elevated state and maintenance of trait anxiety levels, as measured by the STAI.

Trait anxiety is generally long-standing and difficult to change (Spielberger et al., 1983). Spielberg asserted that trait anxiety “refers to relatively stable individual differences in anxiety-proneness, that is, to differences between people in the tendency to perceive stressful situations as dangerous or threatening and to respond to such situations with elevations in the intensity of their state anxiety” (p. 5). In other words, the maintenance of high trait anxiety is predictable, as the scores indicate cognitive bias and are very difficult to change.

The paradox may also be related to participating parents' expressed feelings of shame or self-blame for children's anxiety symptoms. When asked about her worries regarding her child one caregiver in the PC group said, "that we're not being good enough parents and that we've created her anxiety". Brené Brown (2006) defined shame as "an intensely painful feeling or experience of believing we are flawed and therefore unworthy of acceptance and belonging" (p. 45). Anxiety and shame often occur hand-in-hand, both fuelled by uncertainty and perceptions of personal unmet expectations. Socio-cultural expectations, specifically in regards to women, set an expectation of how women 'should' be, based on social roles and demographics. As such, Brown depicted shame as a web of overlapping, clashing, and competing expectations. Brown (2013) suggested that shame has an intrinsic relationship to anxiety. She states:

Shame enters for those of us who experience anxiety because not only are we feeling fearful, out of control, and incapable of managing our increasingly demanding lives, but eventually our anxiety is compounded by our belief that if we were just smarter, stronger, or better, we'd be able to handle everything. (p. 139)

Shame is a longstanding and deep-seated emotion. Shame regarding parenting or the perceived causes of children's anxiety symptoms may have impacted the parent anxiety scores. At the completion of the study some parents expressed feeling validated and more confident in their parenting.

Despite the high parent score in anxiety, many of the caregivers with children in the program did not overtly self-identify as experiencing fears or worries. That being said, some caregivers in both groups described learning tools or strategies to relate to their own symptoms of anxiety. A caregiver from the PC group described the impact of participating in the group: "This has been a great tool for me as I am an anxious individual. It has made me learn to relax and appreciate even the smallest things in life."

While the results of the STAI failed to show statistically significant change to the state or trait anxiety scores of either group of parents, the interview narratives suggested that some parents learned skills to manage their own anxiety symptoms. Due to the fleeting nature of state anxiety symptoms these results may be due to any number of circumstances, related and unrelated to the intervention (Spielberger et al., 1983). It was unclear whether one group benefitted more than the other.

Caregiver Interpersonal Mindfulness

The IM-P scale measures *mindful parenting*, a construct involving the parents ability to hold present-centred attention, emotional awareness, receptivity and openness, and regulate reactivity related to parenting (Coatsworth, Duncan, Greenberg, & Nix, 2010). The results of the Interpersonal Mindfulness in Parenting (IM-P) scale, and IM-P Awareness and Present-Centered Attention (APCA) subscale, suggested that both participating and non-participating caregivers had average levels of interpersonal mindfulness at baseline (Duncan, 2007). At post-treatment neither group showed statistically significant changes in the overall IM-P scale. Parents who attended the mindfulness program with their child(ren) showed statistically and practically significant increases in emotional awareness (as measured by the APCA subscale) while parents who did not attend the program remained at baseline levels.

In the interviews, caregivers from both groups reported personal benefits including the development of awareness and understanding of their child's needs and feelings. CO group caregivers reported either perceiving no personal change or discussed newfound benefits in practicing strategies with their child at home. Caregivers who attended the PC group described increased self-awareness and the cultivation of insight concerning thoughts, feelings, and behaviours of both themselves and their children. The increase in both interpersonal mindfulness and intrapersonal mindfulness for the PC group may account for the significant increase in the IM-P APCA subscale. While some parents in the CO group described learning tools and strategies from their child, it is probable that the increase in PC group awareness and present-centered attention, shown in the IM-P scale and described in the interviews, was derived from actively participating in the intervention.

Parent-Child Relationship

The impact of parent inclusion on the parent-child relationship was assessed through the analysis of the children's and parent's interviews. Both children and parents suggested that relationships within their families had shifted over the eight-week program. Children and caregivers from both the PC and CO groups described increased awareness of family members feelings and needs. In addition, caregivers in the PC group described a personal sense of being calm and grounded, the intention to set aside time to be mindful with their children at home, and an enjoyment of the opportunity and time to bond with their child. Both caregiver and child attendance

in the program provided an interpersonal laboratory to co-explore some of the struggles they face as a family and develop new choices in collaboration. The building of the attachment relationship with a caregiver was recognized by children in both groups to be a key benefit of parent inclusion.

While the numbers of children in the both groups were small (PC n=6; CO n=10), the children communicated three main benefits to parent inclusion. The benefits included an increased support for learning strategies to reduce the child's anxiety symptoms, increased parent wellbeing, and enhanced family communication and relationship building. These implications were described by children in both groups as the positive benefits they experienced, or perceived they would have experienced had their parent participated.

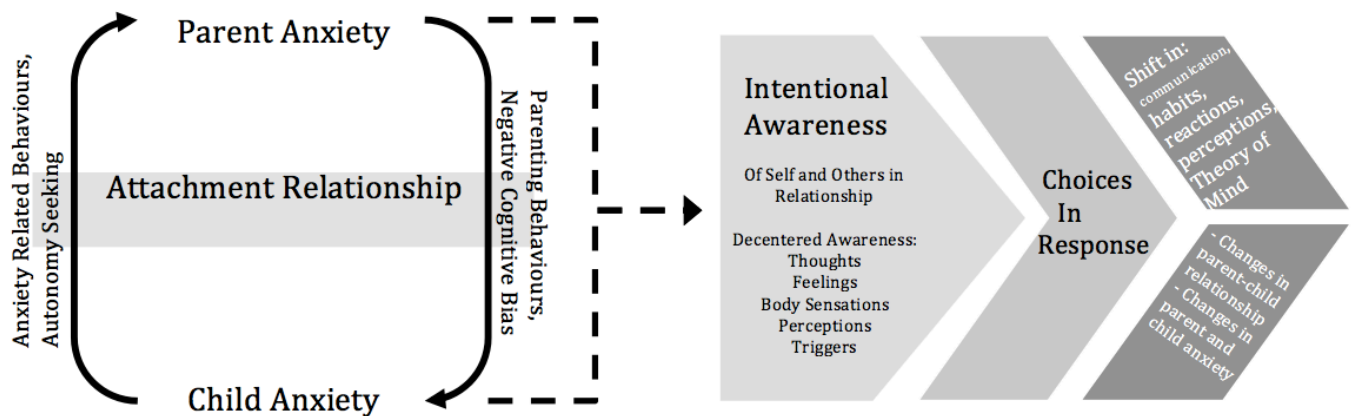
Mutual Aid

It is important to note that the therapeutic experience of the groups themselves may have accounted for, or impacted, the results noted within this document. Cohesive groups, those with members who offer mutual aid to each other, are more likely to reach their therapeutic goals than groups that are non-cohesive (Brabender, Fallon, & Smolar, 2004). Participating children and parents noted that the group experience alone was “validating”, “fun”, and “enjoyable.” One parent in the PC group stated that it was “valuable being part of a group with the same concerns.” A child in the CO group said, “the group was very nice and I liked the people. They were always so kind.” One child from the PC group said “the group has been helpful because everyone participated and it showed me how to participate in stuff too.” It appears from these quotes that the results of the specific intervention may have been partially accounted for by the mutual aid offered between participants in the group process.

Mechanism of Change: Derailing the Anxiety Train

The suggested mechanism of change (Figure 4) of this intervention was grounded in attachment theory and literature pertaining to the environmental components of anxiety transmission. While the attachment relationship plays a significant role in the formation of childhood fears and anxiety symptoms, the daily habitual patterns of reacting between the parent and child establish a cycle that may equally serve to perpetuate symptoms of anxiety (Brumariu et al., 2012). This cyclic pattern is maintained by avoiding/rescuing behaviours, efforts to exert control, and the transmission of negative cognitive biases, which are ingrained in the relationship in a habitual and automatic fashion (Muris, 2007).

Figure 5: Mechanism of Change



Mindfulness interventions offer a *railway switch*: a guided change of direction from the maladaptive automatic relational pattern. This *switch* involves a process of intentional cultivation of decentered awareness creating a choice of response, rather than reaction. This intentional change of direction may lead to shifts in communication, habits of responding, perceptions, and mentalizing ability. With practice, these shifts have the potential to impact the caregiver-child relationship, disrupt automatized negative patterns of reacting, and reduce anxiety symptoms and cognitive bias in caregivers and children.

Over the course of time, mindfulness can give individuals with insecure attachment styles the opportunity to create earned secure attachment (Wallin, 2007). While this is achievable, working within the initial attachment relationship and targeting anxiety mitigating aspects is recommended, if feasible. Just as parent wellbeing has the potential to affect the parent-child attachment relationship, parent mindfulness has the potential to alleviate childhood anxiety symptoms and mitigate meaningful change (Brumariu et al., 2012; Sawyer Cohen & Semple, 2010).

Applications of Attachment Theory

Changes in children's attachment style and internal working models were observed throughout the study. These shifts in consciousness were noted in children's capacity to regulate emotion, bring awareness to shared mental states (also known as Theory of Mind), and cultivate decentered awareness.

Emotional regulation: “The unknown is sometimes an adventure”.

Children in this study demonstrated substantial gains in emotional regulation – the ability to modulate one’s emotional responses (Rodebaugh & Heimberg, 2008). The changes in participants’ awareness and ability to choose behaviour were observed by parents and reported by children. At pre-test many parents in both groups described observing their child as “reactive” or “explosive” when exhibiting symptoms of anxiety. One parent stated that the purpose in her enrolling her child in the study was to seek help in “managing [the child’s] outbursts, because it’s ridiculous and the shrapnel hurts everyone.” Parents described several reactive responses children exhibited when feeling anxious such as stomping feet, slamming doors, following the parent, fighting with family members, throwing things, yelling, and crying. One parent explained that her daughter “can’t express how she wants to talk about it so [reactivity is] her way of letting us know there’s a problem going on.”

At the completion of the program parents observed changes in their children’s behaviour. Children were described as less reactive and more able to control and express emotions in healthy ways. Parents suggested there were shifts in children’s abilities to respond versus react. One parent stated: “She stops and thinks before she reacts negatively.” Another reflected that her child had changed because he could now “communicate without difficulties with other people.”

Children also noted improvements in their control over emotions and abilities to express themselves. Prior to program commencement several children described themselves as reactive. One child stated that when he was anxious he would “get mad and go crazy.” Another stated that he would fight with his siblings and hit things. When asked what had changed since the beginning of the program, a child stated: “mostly, um, controlling my problems. Because usually before I went there I got really mad and ... I couldn’t face my problems that good. And now that I actually learned to actually face my problems I don’t get so mad or angry or upset.”

Shanker (2012) stated “emotions are not simply the object, but also the vehicle for strengthening the mind” (p. 134). He suggested that interventions regarding emotional regulation should not only focus on developing ways for children to control or cope with difficult emotions, but should nurture positive and prosocial affect as well. This aspect of emotional regulation was demonstrated in the groups and one parent eloquently stated that her child learned “to think

positively in situations without over reacting, understanding that the unknown is sometimes an adventure.”

Theory of mind: “I know what’s good for me and what’s good for my family”.

Theory of Mind refers to “the ways in which all of us, to varying degrees, make sense of our own and other’s behaviours on the basis of underlying mental states – including our beliefs, emotions, and desires” (Wallin, 2007, p. 43). Commencing in childhood, we develop a model allowing us to understand and predict the behaviour of others in relation to what we think their mental state is. In this study at pre-test some children showed difficulty understanding the beliefs and desires of caregivers, specifically concerning aspects of family life they didn’t like or could not control.

Over the course of the program the children’s abilities to make sense of others’ behaviours, and show compassion to themselves and others, increased substantially. In the PC group, one child expressed difficulties relating to his stepfather. He said that sometimes he got worried when his stepfather was mad at him because his mom was stuck in the middle trying to defend him. At the completion of the group, when asked about any changes in his relationships in his family, the same child remarked: “when he gets mad at me I used to always talk back to him and I always used to ignore him and then I would just walk away from him when he was still talking and go upstairs to my room. And now I usually just listen to him and I’ll say, if I did something wrong, now I’ll say I’m sorry.” This child showed an astounding shift in theory of mind. It is possible that through the course of the program, including much discussion of difficult communication in families, this child’s theory of mind was shifted.

In the CO group another child demonstrated a substantial shift in theory of mind. At the beginning of the program she talked about her frustration with her mother for not allowing her to see her biological father. This was a point of contention in the home and something this child described as worrying and “hurtful”. At the end of the program she explained a different way of seeing her mother’s choice: “well, I would say there is a little bit of stress but not as much as before because, well, I’m still not allowed to see my dad. But it makes me not that worried anymore because I know what’s good for me and what’s good for my family.”

The changes in children’s theory of mind are demonstrations of the shifts in children’s interpersonal mindfulness and abilities to envision the perspectives of others. It is suggested that

changes to theory of mind and mentalizing ability may demonstrate shifts in attachment security (Meins et al., 2002; Steele, Steele, Croft, & Fonagy, 1999). Steele et al. (1999) explained that “children’s progression through the age-related stages in the expression and understanding of emotion may powerfully depend upon the family context in which children develop” (p. 162). Attachment patterns have been shown to have a significant impact on children’s social and emotional understanding. Changes in emotional understanding may demonstrate changes in internal working models, which may also impact anxiety symptoms (Brumariu et al., 2012).

Decentering: “I am able to recognize more of my actual emotions and use that recognition to make better choices”.

Mindfulness involves teaching “individuals to become more aware of thoughts and feelings and to relate to them in a wider, decentered perspective” (Fresco et al., 2007, p. 235). The skills learned through mindfulness begin with awareness, an awareness of one’s own thoughts and feelings and awareness of relationships with others. Bringing present moment awareness to anxiety may reduce distress and encourage wellbeing (Orsillo & Roemer, 2005). Anxiety restricts the focus of attention to the perceived threat. Orsillo & Roemer suggested that “one main goal of treatment is to expand the client’s awareness of his or her experience” (p. 15). With a gentle opening of awareness, one can recognize anxiety, see it as transient, and allow it to inform without controlling. The ability to decenter is thought to be an important aspect of mental wellbeing and social development (Fresco et al., 2007).

Through the *Still Quiet Place* mindfulness intervention, children and participating parents practiced honing their focused awareness skills, externalizing thoughts (e.g. unkind mind), exploring difficult communication, and choosing to respond rather than react (Saltzman, 2014). Without awareness, habitual negative patterns of reacting are not noticed or altered. Participants of this study expressed a newfound awareness of their own thoughts and feelings and those of others in their families.

At the completion of the program children and participating parents were guided in writing a letter to a friend describing their experiences of mindfulness and how they have applied it in their daily lives. Evidence of decentering was found in the narratives of children and parents in the PC group. One parent wrote:

Dear friend, the last eight weeks I have been learning to be calm. It is relaxing and I am way more aware of my surroundings and also how I am feeling. At home I am able to recognize more of my actual emotions and use that recognition to make better choices and respond in appropriate ways. I am also more aware of the little things that happen around me every day.

A child wrote:

I really liked it how I had one time to enjoy today and the other days. I also liked how we ate mindfully all the time and described it with our 5 senses they are taste, smell, look, hear, and touch. And putting our eyes on that awesome sock eye-rester it helped me a lot to concentrate on our mindful resting and loved it how we got to lay on the yoga mats. But really I liked it how I could learn to calm down and how to enjoy life easier with mindfulness.

With awareness and decentering comes choice in response. Jon Kabat-Zinn stated “too often we let our thinking and our beliefs about what we ‘know’ prevent us from seeing things as they really are” (Kabat-Zinn, 1990, p. 24). Instead of reacting in habitual ways based on past perceptions, participating children and parents were asked to view their relationships with *beginners mind* – as though they had no preconceived thoughts or feelings about the relationship or individual. The Portia Nelson (1993) poem, *An Autobiography in Five Short Chapters*, was read to the groups for this purpose. Discussion with the caregivers and children regarding this poem, and the difficult communications faced in relationships, opened up the opportunity for children and caregivers to be aware of the “holes” they fall into in difficult relationships as well as to choose new “streets” or strategies moving forward.

Limitations

The majority of the limitations in this study were related to the research design. Additional limitations included the paradox of mindfulness meditation and unresolved barriers to inclusive access.

Study design.

While efforts were made to carry out this research in a trustworthy and credible manner (Saldana, 2011), there remain several limitations. Many limitations of this study lie in its design. A key limitation of quasi-experimental studies is that it is difficult, if not impossible, to conclude that

the intervention contributed to change. In addition to the study design, the lack of equivalence between the groups was likely influenced by self-assignment to groups. The use of a non-probability convenience sample and non-random assignment, while effective for the time constraints encountered in both the academic schedule as well as the school timetable, may have led to the lack of equivalence between groups. Based on the exploratory nature of this study, no attempt was made to generalize findings but instead aimed to explore the experiences and perspectives of the individuals who took part.

While this study hoped to understand the important role that parents may play in mindfulness programming, the sample size was small (PC n=6; CO n=10) leading to a lack of power to show statistical significance (i.e. the low probability that change came about by pure chance). The smaller sample size (N=16) was a reality of this study due to the attrition of participants, and the confines of running programming within the school timeline including holidays and breaks.

As the facilitator, the researcher developed relationships with the children and attending parents that may have impacted the results of the interviews. In addition, the researcher framed the interview questions and also interpreted the findings. The use of broader or more open questions, asked by someone other than the group facilitator, may have altered the qualitative data received. It is also possible that some of the questions could be considered 'loaded questions', with built in assumption that the group was helpful, rather than a more open-ended question to explore their experiences with the group.

While attempts were made to avoid researcher bias in analysis, through the use of field notes and analytic memos, the possibility of researcher bias, especially in the qualitative portion remains. Attempts were made to limit bias through supervision, including observations of led practice during MBSR group sessions and weekly group planning and debriefing meetings, provided by the researchers supervisor, providing the researcher another outlet to explore researcher influence.

This research was based on subjective views of the children and parents involved, acknowledging their value as experts of their own experiences. The psychometrics utilized in this research relied on self-report data from both parents and children. This single-report method may have led to a large degree of self-report bias.

While non-attending parents did not receive formal mindfulness instruction, it appears that some non-attending parents practiced together with their children. It is unclear what percentage of parents engaged in mindfulness practice with their child and what level of guidance they acted under. This circumstance may have impacted the results of the interviews as non-attending parents may have affected the child-only intervention outcomes, and their relationship with their child, through their covert participation. This limitation was not anticipated, and research involving child-only groups in the future would benefit from further inquiry regarding parent practice. In addition, other possible external confounding variables, such as changes in life circumstances, may or may not have been captured during the interview processes.

The paradox of meditation.

Another significant limitation of this study was related to caregivers' goals for desired change in their children. Mindfulness is not "about training to remove something unwanted from your [or your child's] experience, but rather about learning to open up to all that you are from moment to moment, to live life to the fullest" (McCown, Reibel, & Micozzi, 2011, p. 7). As a core philosophy of mindfulness is non-striving, a parent's agenda for change may in fact inhibit the outcome they were striving for. This is one of the many paradoxes of mindfulness meditation - those who pursue interventions are often striving for some change and that striving may impede progress and impact the outcome of the intervention. The paradox is described by Brantley (2010):

The catch is that if you are trying to use mindfulness to get rid of something, it doesn't work. Mindfulness is nonjudging, nonstriving, and nondenying. The practice of mindfulness is about connecting with what is here and holding it in kind and compassionate awareness. This includes the experiences of fear, anxiety, and panic. (p. 200)

Parent's striving to change in their child, or "pressuring" the child to practice as one child in the CO group predicted, may have lead to alterations in experience and anxiety symptom reporting.

Barriers to access and participation of underserved populations.

It is important to note that there may have been many barriers to parents and children enrolment, or full participation, in the study. A large amount of the attrition experienced was due to family changes and emergencies. In the future, providing childcare on site or funds for childcare

might make the program more accessible to less-resourced families. Providing bus passes to and from the program may also have increased accessibility.

Mindfulness practices in the West remain homogenous, with many barriers to full participation of underserved or marginalized populations. Canada is increasingly diverse and it is debated that mindfulness practices and programs need to be adaptable to changing demographics. One study suggested that “considering the ways in which traditional psychotherapy practices may not fit with the values and worldviews of this changing population has never been more important” (Fuchs, Lee, Roemer, & Orsillo, 2013).

While diversity in Buddhist *sanghas*, meditation groups, has been highlighted in news outlets regarding People of Colour sitting groups, very little has been published academically regarding diversity and inclusivity in mindfulness programs and secular sitting groups. Current research shows that persons who are from diverse or underserved backgrounds may find significant benefits and challenges from mindfulness-based programs (Fuchs et al., 2013). Social workers working with underserved populations, should consider cultural competence and the appropriateness of intervention with each client. Challenges in incorporating mindfulness interventions with marginalized populations may include: “promoting acceptance in the face of adversity, acceptability of mindfulness, attending to difference in the therapist and clients' perspectives, and promoting the pursuit of values in the face of adversity” (Sobczak & West, 2013, p. 13).

Fuchs et al. (2013) suggested that while “initial findings provide some promising support for the utility of acceptance and mindfulness-based treatments with people from marginalized backgrounds, more rigorous clinical research is needed” (p. 8). This assertion is reiterated by Black and Fernando (2014) who suggest that more research must be done pertaining to underserved and ethnically diverse children rather than small homogenous samples.

Cultural, economic, or religious barriers may have partially accounted for the homogeneity of the ethnicities of participants in the current study. While one community information session was delivered, more may have been helpful to increase understanding regarding mindfulness meditation in the community and reduce anxieties over perceived ties to Buddhism.

Chapter 7: Conclusions

Inferences

The intent of this research was to explore the benefits of parent inclusion in mindfulness early interventions for children presenting with normative fears and anxiety symptoms. The study commenced with a theoretical foundation in attachment theory and mindfulness based interventions. In order to document the benefits of parent inclusion two groups, one with parent inclusion and one without, were facilitated and compared.

The narrative accounts and results of the psychometrics of the children and parents in this study indicated many implications of including parents in the mindfulness intervention. While parent participation was reported to be desirable by the majority of the children in the study, due to the lack of equivalence of the groups and the lack of statistical significance it is not entirely clear what effect caregiver participation may have had on attending children.

Many studies recommended that due to children's imbedded role in the family structure, parents should be included in interventions addressing mental wellness (Burke, 2010; Lee et al., 2008; Napoli et al., 2005). Research regarding childhood anxiety symptoms restated the influence of insecure attachment and adverse parenting patterns on children's development and the maintenance of anxiety symptoms (Crosby Budinger et al., 2013). From a theoretical standpoint, it appeared that early interventions for children would benefit from parent participation.

While the study size was small, children in this study reported nearly unanimously that there was, or would be, significant benefit to parent participation. Children suggested that parent participation enhanced, or would have enhanced, their relationship with their parent, increased their ability to learn skills to relate to their anxiety symptoms in healthier ways, and gave their parent tools to deal with their own anxiety symptoms. Children and parents described tangible changes to their relationships and to overall wellbeing.

While children expressed that parent participation was beneficial in the reduction of their anxiety, this assertion was difficult to assess. Children in both groups showed low anxiety scores on the psychometrics at baseline and maintained the low scores at post-test. Children in the CO group showed significant improvements in the psychometrics related to trait anxiety symptoms (STAIC). While children in the CO group were more anxious at baseline, this result suggests that interventions for children alone may still show many of the positive effects of the dyadic

intervention related to changes in child anxiety and relationships with family members. Children in both groups demonstrated improvements in their familial relationships, decreases in reported anxiety symptoms, and changes in self-regulation, theory of mind, and decentering ability. That being said, children in the CO group reported that if a parent had participated they would have had additional opportunities to build their relationship with their parent and would have been further supported in the practicing of the intervention strategies. They also suggested that parent participation would have been helpful because the parent may have learned what they had been doing and applied it to their own lives.

Children's narrative accounts confirmed that the majority found the mindfulness practices beneficial to their relationships as well as helpful in reducing their anxiety symptoms. Parents reported shifts in their relationships, observed changes in their children, and noted some personal changes. Parent inclusion was perceived to enhance all three areas discussed above – children's relationship with their parent, children's ability to learn skills to cope with anxiety symptoms, and parent coping tools for their own anxiety symptoms.

While children predicted that parents would have reduced anxiety symptoms from participation in the program, results were inconclusive. The STAI showed no significant changes in parents' levels of state or trait anxiety in either group. That being said, the narrative accounts suggested that participating parents saw changes in their symptoms of anxiety— some parents suggesting a marked lessening in stress and propensity to worry. In addition to changes in anxiety symptoms, participating parents demonstrated an increase in awareness and present-centered attention, as reported by the IM-P APCA subscale and personal narratives. Increases in interpersonal and intrapersonal mindfulness in children and parents may have led to an increased awareness of their own thoughts and feelings and those of others, the ability to “take 5 minutes”, and to express their needs and feelings more clearly to family members. Shifts in emotional regulation, decentered awareness, and theory of mind demonstrated that changes in attachment security and other factors related to the maintenance of anxiety symptoms might have been taking place.

Implications for Social Work Practice

The implications for these findings are that parent inclusion in interventions may be a useful way to increase treatment effectiveness with non-clinical children experiencing anxiety symptoms.

It is important for social workers working with children to understand the real world effectiveness of the interventions available. An understanding of attachment theory and children's development is imperative to making valuable choices regarding interventions for children and youth. Mindfulness interventions have been shown to be useful, feasible, and suitable for use with children and youth, and substantial research has shown effectiveness with adult populations (Burke, 2010; Snyder et al., 2012).

It is imperative for policy makers and social workers employed in the children's mental health field to pursue effective early intervention and prevention strategies for childhood anxiety (Waddell et al., 2004). Studies regarding the efficacy of mindfulness interventions for children's anxiety are still in their infancy and initial reports are very positive (Burke, 2010; Greenberg & Harris, 2012; Meiklejohn et al., 2012). While mindfulness based interventions are known to support outcomes similar to those of secure attachment, it is recommended that reparation be made in the original attachment relationship when possible (Wallin, 2007). Due to children's embedded roles in family and school systems, several mindfulness researchers have suggested that parent participation in interventions could increase the intervention's efficacy and further mitigate meaningful change (Burke, 2010; Lee et al., 2008; Napoli et al., 2005). This study provided preliminary support for suggesting that mindfulness interventions may provide several benefits for children experiencing anxiety symptoms. The benefits of parent inclusion in interventions for children's anxiety symptoms were also explored, and future research would be of benefit in this area.

Children referred for counselling are often seen individually and frequently without direct parent involvement (Kymissis & Halperin, 1995). It is important for social workers to take into account several variables into deciding what manner of therapy will be most effective – individual, group, or family. While group therapy involving caregivers is not in the best interest of every child, it is imperative to understand the benefits and drawbacks as to make the best treatment decisions.

While this study outlined several reasons why it may be desirable that caregivers and children participate in mindfulness interventions together, there are many reasons why caregiver participation may be not be feasible or desirable. Similar to the limitations of family counselling, the addition of caregiver participation in interventions with children may not always be suitable. For example, children with histories of trauma, domestic violence, or abuse may not benefit from parent

participation (Geldard & Geldard, 2009). There are also several reasons cited for parent exclusion from mindfulness interventions (Santorelli, 2014). The MBSR program at the Center for Mindfulness in the University of Massachusetts suggested that adults be excluded from mindfulness interventions if they have a serious mental illness (such as clinical depression, post traumatic stress disorder, active psychosis, or severe social anxiety), are suicidal, have an active or recent addiction, or face overwhelming barriers preventing them from physically attending the group sessions or comprehending the practices of the intervention.

Historically the social sciences have contributed to the devaluation of children and their experiences (Neustadter, 1993). Canada's ratification of the UN Convention on the Rights of the Child in 1990 provided an evident step towards recognizing the value of children's perspective and rights to participation and agency (United Nations Centre for Human Rights, 1993). Social work values include the importance of fighting for social justice and the empowerment of vulnerable populations. The medical model, a setting in which many social workers work, places children in submissive positions due to their perceived innate incompetence. Social workers employed in the field of children's mental health must evaluate how their views of children and choice of interventions incorporate children's perspectives and rights (Buxton, 2010; LeFrançois, 2008). Social work researchers regarding children should work with children as collaborators and experts of their experience, rather than subjects of study (Commission for Children and Young People, 2005). The guide *Count Me In! Involving Children and Young People in Research* (2005) gives several suggestions for social science research actively involving the voices of children in research pertaining to them.

A final argument for the integration of parents into children's mental health programming lies in one of social work's fundamental beliefs. A key element of the social work role is the recognition of social and environmental factors related to individuals mental health (Canadian Association of Social Workers, 2011). Social workers working to promote children's mental health must look to children's social and environmental settings in order to make meaningful and lasting change.

Implications for Future Research

This study was designed as a snapshot of child and caregiver views regarding the impact of parent inclusion in mindfulness early interventions for childhood anxiety symptoms. Due to the

small number of children and parents studied in this exploratory study, this research should be repeated with a larger sample and perhaps several groups. Future research with a larger randomized sample may serve to further explore the significance of these findings.

While the children in this study reported parent inclusion in the mindfulness intervention to be desirable and beneficial to both their own and their parent's wellbeing, the feasibility of parent inclusion remains unclear. Despite the many reported benefits to parent participation, the PC group had the greatest attrition, including family emergencies and dynamics. It may be useful to examine the barriers to full participation that caregivers and families face. The parent groups seemed to differ in several ways at baseline and appear to have been motivated to attend or not attend for differing reasons. While exploring the feasibility of parent inclusion was not the purpose of this study, research regarding the feasibility of dyadic or family based mindfulness interventions and associated barriers to participation would be of benefit to the field.

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Appendix A: Still Quiet Place™ Course Outline

Session	Elements	Intentions	Home Practice
Introductory Evening	<ul style="list-style-type: none"> Parents only Mindful eating Review data Rationale for the course Commitment Questions 	<ul style="list-style-type: none"> Provide an experience of mindfulness Review the data to date in adults and children Review the rationale for offering MBSR to children Discuss the course structure and time commitment Answer questions 	
Class 1	<ul style="list-style-type: none"> Mindful listening (tone bar) Introduction to Mindfulness Group agreements and class guidelines Individual introductions Mindful eating Breath-based practice: Jewel / Treasure / Rest Introduce Still Quiet Place Define Mindfulness – paying attention, here and now, with kindness and curiosity, and then choosing our behaviour Daily life practice – mindful toothbrushing Mindful listening (tone bar) 	<ul style="list-style-type: none"> Create a safe, welcoming environment Introduce participants to each other and to the Still Quiet Place/mindfulness Provide an experience and working definition of Still Quiet Place/mindfulness Give examples of mindfulness in daily life (informal practice) 	<ul style="list-style-type: none"> Jewel / Treasure Rest Toothbrushing
Class 2	<ul style="list-style-type: none"> Review class 1 and experience with home practice Discuss barriers to practice, generate solutions Seaweed movement practice Jewel / Treasure / Rest Pleasant Events exercise Investigate how often our attention is in the past or the future Daily life practice – mindful shoe tying Answer questions Encourage home practice 	<ul style="list-style-type: none"> Explore experience of CD and daily life practice Support the children in establishing a daily practice with the CD 	<ul style="list-style-type: none"> Jewel/ Treasure Rest Shoe Tying
Class 3	<ul style="list-style-type: none"> Review class 2 and experience with home practice Action Circle movement practice Bubbles/Thought Watching Introduce concept of Unkind Mind (critical internal dialogue) Nine dots 	<ul style="list-style-type: none"> Discuss experience with CD and daily life practice Cultivate the capacity to observe thoughts Nine dots Perception— how we view ourselves, others Thoughts during a difficult task Introduce the concept of Unkind Mind (critical internal dialogue) 	<ul style="list-style-type: none"> Bubbles/ Thought Watching Notice Unkind Mind
Class 4	<ul style="list-style-type: none"> Review Class 3 and experience with home practice Unpleasant Events exercise Suffering = pain x resistance Mindful Dance Party Finger Yoga practice Mindfulness of feelings Discuss that this is the halfway point in the course, and a new moment to recommit to the practices Daily life practice – mindful showering 	<ul style="list-style-type: none"> Examine the thoughts and feelings associated with unpleasant experiences Resistance Wanting things to be different Examine how resistance/ wanting circumstances, ourselves, others to be different creates upset/suffering Develop emotional fluency 	<ul style="list-style-type: none"> Feelings Haiku/poetry/art depicting a feeling Play with S = P x R Watch how we create suffering Showering
Class 5	<ul style="list-style-type: none"> Review class 4 and experience with home practice 	<ul style="list-style-type: none"> Introduce basic emotion theory Explore common “holes” and “different 	<ul style="list-style-type: none"> Mountain/Stretch and Balance Notice “holes”

	<ul style="list-style-type: none"> Emotion theory and improve “Autobiography in Five Short Chapters” Yoga 	<ul style="list-style-type: none"> streets” Use holes and streets to discuss reacting vs. responding Yoga Self-talk/Self-compassion Balance as dynamic Explore how often Unkind Mind is inaccurate/negative/looking for trouble 	<ul style="list-style-type: none"> and “different streets” Continue to notice Unkind Mind
Week 5 Vacation	<i>School schedules often contain vacations. Although it is not always possible, it is best to schedule the course so that vacations fall after week 4, when the students have some momentum.</i>	<ul style="list-style-type: none"> Maintain practice without support of weekly class 	<ul style="list-style-type: none"> Alternate Feelings and one of the other practices each day Notice “holes” (difficult situations) and practice choosing “different streets” (<i>responding</i>)
Class 6	<ul style="list-style-type: none"> Discuss falling in and staying out of holes Body Scan Communication dyads exercise (one person describes one difficult communication, the other listens and then reflects, then the roles are reversed) Walking Introduce possibility of Kind Heart as an antidote to Unkind Mind 	<ul style="list-style-type: none"> Continue developing the capacity to respond rather than react Bring attention into the body Enhance capacity to observe thoughts and feelings Practice using mindfulness during difficult communications Moving our practice into the world Introduce Kind Heart 	<ul style="list-style-type: none"> Alternate Body Scan/Being in the Body, and Walking Thoreau/nature walk Practice responding (with Kind Heart) to both Unkind Mind and in difficult situations
Class 7	<ul style="list-style-type: none"> Share examples of responding, and role-play new responses to situations when the students reacted Aikido Loving-kindness ABC, STAR, and PEACE practices Discuss that next week is the last class Request that students bring something for the last class that symbolizes their experience with the course 	<ul style="list-style-type: none"> Continue to develop the capacity to respond (with Kind Heart) rather than react Introduce loving-kindness as a specific practice for developing Kind Heart 	<ul style="list-style-type: none"> Loving-kindness Continue responding (with Kind Heart) to both Unkind Mind and in difficult situations Bring something symbolic to share for the last session
Week 8 Class 8	<ul style="list-style-type: none"> Discuss experience with Loving-kindness Group choice Letter to a friend Completion/beginning Making the practice their own 	<ul style="list-style-type: none"> Discuss the natural capacity to send and receive love Share what the course has meant to them Discuss variety of ways they can make the practice their own Discuss the completion of the course Remind them they can always call or email 	<ul style="list-style-type: none"> Your choice Sit/ Flashlight Make a commitment (or not) as to how you will continue the CD and daily life practice

It cannot be emphasized enough: your own solid personal practice is an essential prerequisite for you to offer mindfulness to others!

Although it is not listed to conserve space, every class starting with session 2 will begin and conclude with Mindful Listening, and Mindful Eating always follows the initial Mindful Listening practice.

It is important that you attend to participants’ natural need for movement.

In the discussions, use the children’s real-life experience to demonstrate how mindfulness can be applied in daily life: test anxiety, playground interactions, disagreements with siblings, romantic breakups...

Copied, with permission, from *A Still Quiet Place*, by Dr. Amy Saltzman (2014, pp. 206 - 210)

Appendix B: School District Approval Letter

LETHBRIDGE SCHOOL DISTRICT NO. 5

DIVISION OF INSTRUCTIONAL SERVICES

433 - 15 STREET SOUTH

LETHBRIDGE ALBERTA

T1J 2Z5

PHONE: (403) 380-5302

FAX: (403) 327-4387



November 26, 2013

To whom it may concern:

Gillian Hestad, currently employed in the district Making Connections Program, has preliminary approval for a component of her research and clinical practicum which involves Mindfulness Based Stress Reduction for children and families.

Final approval for this project will be given when Gillian provides the school district with appropriate documentation from the University of Calgary, Human Subjects Research Committee.

Respectfully,

Lisa McMullin
Making Connections Coordinator
Lethbridge School District #51

Appendix C: Research Advertisement

FREE Mindfulness Program for Children and Parents

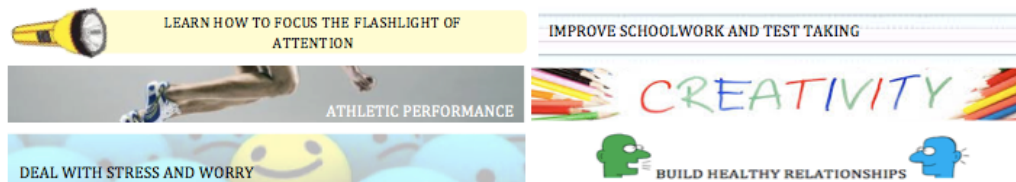


Dear Parent or Guardian:

As a condition of my Masters of Social Work degree at the University of Calgary, I am delighted to have the opportunity to bring the MindfulChild program to the Lethbridge School District. *The MindfulChild eight-week course teaches youth and parents specific ways of paying attention to the breath, body, thoughts, feelings, and the surrounding world.* This way of paying attention is very powerful because when you can observe your thoughts and feelings, then you can choose what you say and how you act. And choosing your words and actions can improve your life! *More than twenty-five years of research* have proven that mindfulness increases attention and focus; reduces stress, anxiety, and depression; and increases well-being. Mindfulness is used by professional athletes, artists, musicians, business people, teachers, healthcare professionals, lawyers, and military personnel to enhance their performance

You are invited to participate in this exciting group with your child. This program is offered as part of a study. This study will examine the benefits of including parents in school-based wellness programming. You have received information about this study because your child is in grade four or five. I am looking for students and parents to participate in the child-parent groups.

Through the MindfulChild program, your child may:



Who: 4th or 5th grade students and a parent or guardian. Children may have mild to moderate anxiety symptoms, but for the purposes of this study cannot have a diagnosis of an anxiety disorder.

What: During each session, you and your child will participate in a variety of relaxation and mindfulness activities. These activities aim to teach your child about stress and worry, how worry affects the body and mind, and what your child can do to cope with and relate to worry in a different way. You and your child will be asked to participate in activities that are designed to help improve awareness of worry and increase the ability to cope and effectively deal with it. Sometimes when people talk about their problems it can be upsetting. If your child is feeling upset they may skip any activity, request a break, or withdraw from the program at any time. Both of you will be asked to do 15 minutes of practice each day. Each of you will be asked to fill out questionnaires before and after the program takes place. These questionnaires will take less than 20 minutes to complete.

When and Where: The parent-child group will be held at Mike Mountain Horse School in the art room on Thursdays from 6:30-7:30pm. The group will begin May 1st, and run for 8 weeks. Participants may withdraw from the program at any time without penalty.

Registration: **If you are interested in participating in this study, please contact Gillian Hestad by phone, or email as soon as possible to arrange a meeting. The deadline to register is April 28th.**

Thank you,

Ms. Gillian Hestad, BSW, RSW
Masters of Social Work Student
University of Calgary

Dr. Rachael Crowder, PhD, RSW
Clinical Supervisor
Faculty of Social Work
University of Calgary

Appendix D: Child Interview Sample Questions

Pre Intervention questions:

I am going to ask you some question about stress or worry.

- What does it feel like when you are worried? /How does being worried affect your body?
- What kinds of things do you worry about?
- Can you tell me about a time you were worried about something?
- Is there anything else you would like to tell me?

Post Intervention questions:

- How do you think the group helped you?
- Has how you get along with your parents or brothers or sisters changed?
- How has your worry changed? (What kinds of things do you worry about?)
- Do you feel more, less, or the same amount of worry as when we began?
- What is different now?
 - Has anything happened that was really good or not very good at your house over the last couple weeks?
- What was it like having your parent there? **OR** How do you think it would have been different if you parent had been there too?
- Is there anything else you would like to tell me?

Appendix E: Parent Interview Sample Questions

Introductory Interview:

- How often does your child let you know when he/she is worried, stressed, or anxious?
- How do you know when your child is experiencing worry, stress, or anxiety?
- What does your child worry about?
- What does your child do when they feel worried?
- What kinds of things worry you as a parent?
- Is there anything else you'd like to share?

Post Intervention Interview: Attending Parents

- What impact did attending the classes and practicing the homework have on you?
- What differences have you noticed in your child's levels of stress, worry, or anxiety?
 - What specific aspects of the course do you feel resulted in these changes?
- What differences have you noticed in your relationship with your child?
 - What specific aspects of the course do you feel resulted in these changes?
- Have there been any significant changes in your family since the start of the program?
- Do you still practice the MBSR exercises that you learnt in the class?
 - If so, please describe your experiences of it.
- What changes have you seen in your attitude towards parenting as a result of participating in MBSR classes?
- Is there anything else you'd like to share?

Post Intervention Interview: Non-Attending Parents

- What impact did attending the classes and practicing the homework have on **your child**?
- What impact did having your child attend the classes and practicing the homework have on **you**?
- What differences have you noticed in your child's levels of stress, worry, or anxiety?
 - What specific aspects of the course do you feel resulted in these changes?
- What differences have you noticed in your relationship with your child?
- Have there been any significant changes in your family since the start of the program?
- Is there anything else you'd like to share?

Appendix F: Family Information Form

Your name: _____ Your relationship to the child: _____

How old are you?

- | | |
|--|--|
| <input type="checkbox"/> 18-29 years old | <input type="checkbox"/> 50-64 years old |
| <input type="checkbox"/> 30-49 years old | <input type="checkbox"/> 65 years and over |

What is your ethnic background? _____

Contact number: _____ Best time to call you: _____

Your child's name: _____ Child's age: _____ Child's ethnic background: _____

Your child's current household (check one):

- | | |
|--|---|
| <input type="checkbox"/> Mother only | <input type="checkbox"/> Father only |
| <input type="checkbox"/> Two Parents/Partners | <input type="checkbox"/> Blended Family (both partners with children from previous relationships) |
| <input type="checkbox"/> Other (specify _____) | |

Including yourself and your child, how many children and adults live in your home? Adults: _____ Children: _____

Marital Status:

- | | | |
|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Single, never married | <input type="checkbox"/> Common law | <input type="checkbox"/> Divorced |
| <input type="checkbox"/> Married | <input type="checkbox"/> Widowed | <input type="checkbox"/> Separated |

What is the highest grade you completed in school?

- | | | |
|---|--|--|
| <input type="checkbox"/> Some high school | <input type="checkbox"/> Trade/technical/vocational training | <input type="checkbox"/> University Degree |
| <input type="checkbox"/> High school graduate | <input type="checkbox"/> College Diploma | <input type="checkbox"/> Some postgraduate study |
| <input type="checkbox"/> Some college | <input type="checkbox"/> Some University | <input type="checkbox"/> Post graduate degree |
| | | <input type="checkbox"/> Prefer not to answer |

Annual household income

- | | | |
|---|---|---|
| <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$50,000 to \$69,999 | <input type="checkbox"/> \$150,000 or more |
| <input type="checkbox"/> \$10,000 to \$29,999 | <input type="checkbox"/> \$70,000 to \$99,999 | <input type="checkbox"/> Prefer not to answer |
| <input type="checkbox"/> \$30,000 to \$49,999 | <input type="checkbox"/> \$100,000 to \$149,999 | |

Please select any of the following activities you have participated in:

- | | | |
|-------------------------------------|-------------------------------|--------------------------------------|
| <input type="checkbox"/> meditation | <input type="checkbox"/> yoga | <input type="checkbox"/> mindfulness |
|-------------------------------------|-------------------------------|--------------------------------------|

Please select any of the following activities your child has participated in:

- | | | |
|-------------------------------------|-------------------------------|--------------------------------------|
| <input type="checkbox"/> meditation | <input type="checkbox"/> yoga | <input type="checkbox"/> mindfulness |
|-------------------------------------|-------------------------------|--------------------------------------|

Has your child ever been diagnosed with an anxiety related disorder? ☐ Yes ☐ No

Has your child ever seen a mental health professional (psychiatrist, psychologist, or a counselor)? ☐ Yes ☐ No

If yes, please provide the name of the previous mental health professional or agency:

Is there a diagnosis or medication that your child is now receiving or has received?

Does your child have any allergies? _____

Any concerns you have about this child?

Anything else you would like to share about this child?

Thank You For Your Participation.

Appendix G: Informed Consent Letter

Consent Form

Name of Researcher, Faculty, Department, Telephone & Email:

Gillian Hestad, BSW, RSW

Masters of Social Work Student, Faculty of Social Work, Southern Alberta Region

Phone:

Email:



Supervisor:

Dr. Rachael Crowder, PhD RSW Faculty of Social Work, Southern Alberta Region

Title of Project:

The impact of parent inclusion in mindfulness early interventions for children with sub-clinical anxiety.

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

Purpose of the Study

The purpose of this research is to determine the benefits of including parents in school programs assisting children with stress, anxiety, and worry. Mindfulness-based stress reduction (MBSR) was developed for people struggling with chronic illness, anxiety or pain. It has been adapted to help children and parents live less stressful and more deeply satisfying lives. This study aims to help both children and parents learn strategies to cope with stress and anxiety. The study will have two groups, a group just for children and a combined group for children and a parent. Through this study the researcher will observe the difference in the children's and parent's levels of anxiety and determine the benefit of the programs. This study will look at what change, if any, does parent inclusion have on children's levels of anxiety and what benefits the program has for parents. Your child is being asked to be in this research study because he/she is in grade four or five. Your child will be asked to participate in various relaxation, breathing, and concentration exercises that are designed to improve awareness of worry and increase the ability to cope. This researcher is completing this research as partial fulfillment of the requirements for her degree of master of social work at the University of Calgary.

What Will I Be Asked To Do?

MBSR is a brief, intensive group approach that requires a high level of commitment – a willingness to commit to doing about fifteen minutes of practice each day and to attending the whole program. There are two groups, the child-only group and the parent-child group. You and/or your child are welcome to participate in either group. The groups will consist of eight weekly sessions. The involvement of participants is outlined in the columns below.

Child Only Group

- The student will be asked to complete a short interview and questionnaire about his/her anxiety on two occasions.
*see attached interview questions and questionnaire.
- The parent will be asked to complete a

Child and Parent Group

- The student will be asked to complete a short interview and questionnaire about his/her anxiety on two occasions.
*see attached interview questions and questionnaire.
- The parent will be asked to complete a

- | | |
|---|--|
| <p>questionnaire about mindfulness and one about anxiety on two occasions.</p> <ul style="list-style-type: none"> • The student will attend the eight-session (45 minutes per session) stress-management program • The child will spend approximately 15 minutes doing home practice per day, 6 days per week for the eight-week program • At the end of the program parents will be given the option to complete a survey or meet with the researcher for a short interview | <p>questionnaire about mindfulness and one about anxiety on two occasions.</p> <ul style="list-style-type: none"> • The student and parent will attend the eight-session (45 minute long) stress-management program • The parent and child will do approximately 15 minutes doing home practice per day, 6 days per week for the eight-week program • At the end of the program parents will be given the option to complete a survey or meet with the researcher for a short interview |
|---|--|

At the completion of this document you may choose which program, if any, you would like to participate in. Participation in either group is completely voluntary and you may refuse to participate now or at any point during the study. You may refuse to participate in parts of the study, may decline to answer any and all questions, and may withdraw from the study at any time without penalty or loss of benefits.

What Type of Personal Information Will Be Collected?

Should you agree to participate, you will be asked to provide your gender, age, ethnicity, educational level, and income level. This information is gathered solely for the purpose of comparing the overall participants of the two groups. This data will be collected during the initial interview. All names will be coded and all information will be stored electronically in encoded files. All data will be kept private and only the researchers will be able to access these audio, written, electronic, or other records.

This study involves the audio recording of your and/or your child's interviews with the researcher. Neither your names nor any other identifying information will be associated with the audio or audio recording or the transcript. Only the research team will be able to listen to the recordings. The files will be transcribed by the researcher and erased once the transcriptions are checked for accuracy. At the conclusion of this study, all audio files will be deleted. Transcripts of your interview may be reproduced in whole or in part for use in presentations or written products that result from this study. Neither your name nor any other identifying information (such as your voice) will be used in presentations or in written products resulting from the study.

Are there Risks or Benefits if I Participate?

If you agree to participate in this study there may or may not be a direct benefit to you. The potential risk for you and your child from participating in this study includes the possibility of not improving the ability to effectively deal with anxiety. Another potential risk for your child from participating in this study may include an increase in emotional distress caused by talking about issues related to his/her problem. There may also be other possible side effects of participating in this stress reduction program that are not yet known.

If your child is in the study because he/she has been identified as having anxiety, his/her condition may be improved during the study but there is no guarantee that this research will help. You

might benefit by becoming more aware of how stress or worry affects your child's life. Your child may benefit by becoming more aware of how stress or worry affects his/her life, by becoming more able to handle anxiety in appropriate ways, and by becoming more aware of changes in himself/herself. That being said, your child may not personally benefit from being in this study. Other parents and children in the future may benefit from what the researchers learn from the study. The information we get from this study may help us to provide better school-based treatments in the future for students with anxiety.

As a social worker, the researcher is legally obligated to report suspected or disclosed child abuse or neglect. In addition, the researcher has an ethical and legal duty to warn a third party or notify the police if they conclude that a client poses imminent risk of serious physical or psychological harm, or death to a person or group.

If children score at a clinical level on the anxiety scale they will be excluded from the study. Parents will be provided with contact information of other mental health professionals in the area and assistance in accessing services if desired. As a registered social worker with experience working with children and parents, the researcher will offer support to participants who appear significantly upset or disturbed at any point during the program. Contact information to external community counseling agencies will also be available to all participants.

What Happens to the Information I Provide?

Participation is completely voluntary, anonymous and confidential. You are free to discontinue participation at any time during the study. No one except the researcher and her supervisor will be allowed to see any of the answers to the questionnaires. All information and records relating to you and your child's participation will be coded and kept in a locked file only accessible by the researcher and her supervisor. Anonymous data will be stored for five years on a password protected computer disk, at which time it will be permanently erased. If the results of this study are published, no names or other identifying information will be used. If you choose to withdraw from the study before it is complete the data that is collected will be destroyed.

Signatures

Your signature on this form indicates that 1) you understand to your satisfaction the information provided to you about your participation in this research project, and 2) you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Please select your choice of program from the options below:

- ☐ I would like to participate in the parent/child group.
- ☐ I would like my child to participate in the child only group.

Participant's Name: (please print) _____

Participant's Signature: _____ Date: _____

Researcher's Name: (please print) _____

Researcher's Signature: _____ Date: _____

By signing this line, I am allowing the researcher to audiotape me and/or my child as part of this research.

Participant's Signature: _____ Date: _____

Questions/Concerns

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

*Ms. Gillian Hestad
Faculty of Social Work*

and Dr. Rachael Crowder

If you have any concerns about the way you've been treated as a participant, please contact an Ethics Resource Officer, Research Services Office, University of Calgary at (403) 210-9863; email cfreb@ucalgary.ca.

A copy of this consent form has been given to you to keep for your records and reference. The investigator has kept a copy of the consent form.

Appendix H: Assent Form

Assent Form For Minors



I want to tell you about a research study I am doing. A research study is a way to learn more about something. I would like to find out more about ways to help children who worry. All grades four and five children in your school were asked if they would like to participate, and your parent thought you might want to.

If you agree to join this group, you will be asked to fill out some forms and learn some ways to relax. The group will meet once every week for eight weeks. Each week when we meet our activities will be less than an hour. You will be asked to participate in activities that will teach about stress and worry. You will learn about worry and some things you can do to help you with hard thoughts and feelings. Everyday there will be about fifteen minutes of practice for you to do at home.

There are some things about this group you should know. If you join this group your worries might not get better right away or at all. Sometimes when people talk about their problems it can make them feel bad. If you are feeling sad or upset you can skip any activity, take a break, or quit the program at any time.

If you choose to take part in this study you might learn how stress or worry affects your life. Knowing how stress and worry affect you can help you learn new ways to handle worry. Even if the group doesn't help you learn ways to handle worry, you can help me learn how to help other kids.

You do not have to join this group. It is up to you. You can say okay now and change your mind later. All you have to do is tell me you want to stop. No one will be mad at you if you don't want to be in the study or if you join the study and change your mind later and stop. Before we start the group we will meet for a few minutes to talk about worry and fill out a worry quiz. I will audio record what we talk about to help me remember. At the end of the group we will meet again to fill out the quiz one more time.

Before you say yes or no to being in this study, I will answer any questions you have. If you join the study, you can ask questions at any time. Just tell me that you have a question. If you have any questions about this study please feel free to contact Gillian Hestad at

Would you like to be in this research study?

☐ **Yes, I will be in this group.**

☐ **No, I don't want to do this.**

Child's name

Signature of the child

Date

Person obtaining assent

Signature

Date

Appendix I: State-Trait Anxiety Inventory for Children

For use by Gillian Hestad only. Received from Mind Garden, Inc. on May 16, 2014



www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: ***State-Trait Anxiety Inventory for Children***

Author: ***Charles D. Spielberger, in collaboration with R.L. Gorsuch, G.A. Jacobs, R. Lushene, and P.R. Vagg***

Copyright: ***1970 Charles D. Spielberger***

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

STAIC Examples

The S-Anxiety scale consists of twenty statements that describe how respondents feel “right now, at this very moment.”

1. I feel	<input type="checkbox"/> very relaxed	<input type="checkbox"/> relaxed	<input type="checkbox"/> not relaxed
2. I feel	<input type="checkbox"/> very upset	<input type="checkbox"/> upset	<input type="checkbox"/> not upset

The T-Anxiety scale consists of twenty statements that describe how respondents "usually feel."

1. I worry too much	<input type="checkbox"/> hardly ever	<input type="checkbox"/> sometimes	<input type="checkbox"/> often
2. I notice my heart beats fast	<input type="checkbox"/> hardly ever	<input type="checkbox"/> sometimes	<input type="checkbox"/> often

Appendix J: State-Trait Anxiety Inventory for Adults

For use by Gillian Hestad only. Received from Mind Garden, Inc. on May 16, 2014



www.mindgarden.com

To whom it may concern,

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Instrument: ***State-Trait Anxiety Inventory for Adults***

Authors: ***Charles D. Spielberger, in collaboration with R.L. Gorsuch, G.A. Jacobs, R. Lushene, and P.R. Vagg***

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Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

STAI Examples

The **S-Anxiety** scale consists of twenty statements that evaluate how respondents feel "right now, at this moment."

	1	2	3	4
	Not At All	Somewhat	Moderately So	Very Much So
A. I feel at ease	1	2	3	4
B. I feel upset	1	2	3	4

The **T-Anxiety** scale consists of twenty statements that assess how respondents feel "generally."

	1	2	3	4
	Almost Never	Sometimes	Often	Almost Always
A. I am a steady person	1	2	3	4
B. I lack self-confidence	1	2	3	4

Appendix K: Interpersonal Mindfulness in Parenting Scale

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