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The Secret Ingredient for Improving Infant/Child Mental Health: Teaching Parents To Play

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The secret ingredient for improving infant/child mental health: Teaching parents to play

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This project, written by Caniqué Brown under direction of Amy Marshall and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

CAPSTONE COMMITTEE

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Certification

We hereby certify that this Capstone project, submitted by Canique Brown, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupational Therapy degree.

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Executive Summary

Background: Disorders in mental health are the highest of all disorders and results in the most common form of disability. Since 2011, mental health disorders have increased at alarming rates. It is estimated that 9.5 to 14.2% of children between the ages of 0 to 5 years have and emotional or behavioral problem. The mental health of parents or caregivers can affect and impact the development of young children (Nelson & Mann, 2011, Zero to Three, 2004).

Purpose: The over arching goal of this research is to explore issues of mental health within parent-child interactions. Coaching parents during the co-occupation of play improves infant child mental health in addition to developing capacity for ongoing development in occupational performance.

Theoretical Framework/ Scientific Underpinnings: This research is supported by theories of infant child mental health and attachment and interventions of co-occupation during play within a family capacity-building model.

Methods: This is a mixed methods approach using a descriptive program design measuring changes in the following 1) parents attachment behaviors; 2) child's occupational performance and 3) core competencies of social emotional development.

Results: There were positive results in all outcomes when intervention focused on parent engagement fostering social emotional development during the co-occupation of play using a coaching, family capacity-building approach within the home setting.

Conclusions: Intervention that focuses on parent-child interactions with a coaching model along with a family-capacity approach can improve social emotional development skills, occupational performance in addition to reinforcing attachment behaviors between the parent and child.

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Certification of Authorship: I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas, or words that are copied directly or paraphrased in the document. Sources are properly credited according to accepted standards for professional publications. I also certify that this paper was prepared by me for this purpose.

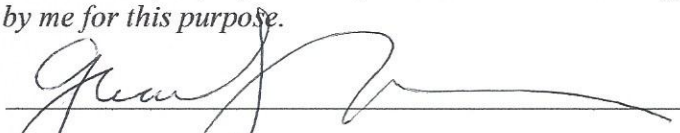
Student's Signature: 

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Table of Contents

List of tables

Page

The secret ingredient to infant child mental health: Teaching parents to play

SECTION ONE: NATURE AND PROBLEM IDENTIFICATION

Mental health disorders have increased at an alarming rate within the past decade (Healthy People 2020, 2014). Disorders of mental health are among the highest of all disorders and the most common cause of disability. Most mental health disorders are described as serious changes in learning, behavior or handling of emotions (Centers for Disease Control and Prevention, 2013). Mental health is defined as "the psychological well being and satisfaction adjusting to society and to ordinary life demands" (American Psychological Association, n.d). The overarching goal of this Capstone is to address issues of mental health in our society at the core of the issue, in attachment and social emotional development fostered by the parent-child relationship.

Infant mental health is deeply grounded within attachment theory (Nash, 2014), the foundation for social emotional skills development and the parent-child interactions (PCI). According to Berlin & Cassidy (2001), John Bowlby contended that attachment plays an essential role throughout people's lives. Insecurities with attachment have been linked to mental and physical conditions associated with behavior, cognition and emotions that are relevant in OT practice (Meredith, 2009).

Parent-infant interactions are fundamental to infant mental health (McAtamney, 2011). A child's social emotional development is embedded in family dynamics and the social environment. It is affected by a parent's mental health and stressors within the home environment (Nelson & Mann, 2011). Three factors impacting a parent's behavior include 1) the parent's characteristics, 2) the parent's stressors and social support, both real and perceived, and 3) the child's characteristics (Humphry, 1989). The parent-infant relationship that provides

The secret ingredient to infant child mental health: Teaching parents to play

secure attachment experiences is essential to infant mental health (Cousins, 2013). Infants and young children are dependent upon the primary care giver to provide social experiences and opportunities to explore their world. Because of this, love, care and relationships are at the core of infant/child mental health (Florida State University, n.d.). The development of self concept and self regulation are important features of social-emotional development (Florida State University, n.d.). Parent-child interactions are improved when parents have knowledge of their child's development, and an understanding and confidence in their role as a parent (Yates, 2011). Through the examples listed, the importance of building social-emotional relationships between parent/caregivers and infants are reinforced.

During the past few decades research has recognized that infants and young children ages 0 to 3 years demonstrate impaired mental health issues of clinical relevance. These problems include difficulties with attention, crying, sleeping; feeding disorders as well as aggressive behaviors (Bolten, 2013). Maternal depression, anxiety and other issues regarding mental health in parents or caregivers can affect young children as early as 4 months of age (Zero to Three, 2004).

The term "infant mental health" is used synonymously with healthy social emotional development in the literature (Sampaio & Lifter, 2014; Zero to Three, 2016). In fact, the definition itself describes the three core competencies of social emotional development. Infant mental health is defined as "the child's capacity to experience, regulate and express emotions; form close and secure relationships, and explore the environment and learn" (Cousins, 2013; Sampaio & Lifter, 2014; Zero to Three, 2016).

The secret ingredient to infant child mental health: Teaching parents to play

The Center for Disease Control and Prevention (CDC, 2013) has completed the first comprehensive surveillance report on childhood mental health from 2005-2011. According to the report, 13-20% of children in the United States age 3-17 years have some form of mental illness. Zero to Three (2016) reports that there is an estimated 9.5% to 14.2 % of children with emotional or behavioral disturbances between the ages of 0 to 5 years of age. The National Institute of Mental Health (NIMH) (2009) reports that half of all lifetime cases of mental illness begin by age fourteen.

Mental health policies and funding have focused on older children and adults (Nelson & Mann, 2011). As a result, a void has existed in the United States focusing on intervention needs for individuals with mental health concerns primarily within the 0 to 3 year old population. There is a need for more comprehensive assessment tools to support early identification and treatment of infant child mental health issues. In the primary care setting, there is a need for screening for social-emotional skills (Briggs et al., 2012, Weitzman, Edmonds, Davagnino, & Briggs-Gowan, 2011), as well as an improved understanding of service delivery models for practitioners (Humphry, 1989; McAtamney, 2011; Nelson & Mann, 2011; Schultz-Krohn & Cara, 2000; Shah, 2010).

Problem statement

The problem addressed in this study is the lack of awareness, services, and support in fostering parent understanding of mental health issues for infants and children 0 to 3 years of age in Salem County, New Jersey.

The secret ingredient to infant child mental health: Teaching parents to play

Purpose

The purpose of this Capstone Project is to develop a model for assessment and intervention that focuses on parent play interactions to improve the development of social emotional skills in infants and children 0 to 3 years of age.

Project objectives

The objective of this project is to ascertain the success of using the family capacity-building model during the occupation of play to improve parent attachment behaviors and interactions that promote social emotional skills development of infants and children within the home setting. Parental perceptions of the importance of these interactions to promote mental health wellbeing will be explored.

Participants included parents/caregivers of infants and children ages 0-3 years of age, living within Salem County, New Jersey, who have concerns or have been identified as at risk for emotional or behavioral issues. Participants shared their experiences and perceptions through the use of surveys, narratives and researcher observations of play sessions with their infant /child.

Salem County New Jersey is a rural community 30 miles outside metropolitan Philadelphia. It is home to 66,000 people, 5.8% are five years of age or younger. The mean household income is $59, 336.00, 11.2 % of population live below the poverty level (United States Census Bureau, n.d.). The percentages of children who have one or more behavioral or emotional problems within the county are similar to the United States at 15% (United States Census Bureau, n.d.). In review of Healthy New Jersey 2020 (State of New Jersey, Department of Health, 2015), the State of New Jersey's model of Healthy People 2020, no Leading Health

Indicators were addressed for any mental health issues in the 0 to 3 age group demonstrating a lack of awareness of this issue and a need for services to assist parents and children in identifying and addressing issues of mental health at early ages.

Theoretical framework

Theoretical framework for this study is based upon theories of attachment and infant child mental health (ICMH); supported by neurobiology. The theoretical framework is supported in the practice and vision of our professional organization, The American Occupational Therapy Association (AOTA) and the New Jersey Early Intervention System (NJEIS); current healthcare trends; and the goals of infant mental health currently mandated at the state and federal levels.

Attachment theory has had an impact on the theoretical and clinical landscape in the multidisciplinary field of infant mental health (Meredith, 2009). The original attachment theory espoused by John Bowlby, conceptualizes that infants have an innate, adaptive and biological drive to maintain proximity to the caregiver, resisting separation from the caregiver particularly in instances of a threat (McAtamney, 2011; Meredith, 2009). Secure attachment experiences, along with sensitivity and responsiveness with the caregiver are essential in infant mental health (Cousins, 2013; McAtamney, 2011, Tortora, 2010). Providing opportunities for caregiver-infant interaction is essential to building mental health foundations.

The goal of infant mental health is to assist infants and children under the age of three to achieve the social emotional wellness and psychological development needed to function within their environment (Schultz-Krohn & Cara, 2000). Many studies reveal the importance of the

transactional nature of the parent-infant dyad for the development of social emotional skills (Case-Smith, 2013; Humphry, 1989: Meredith, 2009; Shah, 2010).

During the past 40 years, research in the area of infant child mental health has expanded in an attempt to conceptualize the relational and contextual factors influencing social emotional development in young children (Shah, 2010). Evidence has indicated that the quality of the parent-child relationship impacts resilience or vulnerability to behavioral disorders (Shah, 2010). A key factor in the development of wellbeing lies in consistency and the appropriateness of the caregiver response toward the developing infant (Bolten, 2012; Cousins, 2013; Meredith, 2009; Shah, 2010). Improving the parent-child attachment is the best way to promote infant mental health (Bolen, 2012; Cousins, 2013; Humphry, 1989; McAtamney, 2011; Shah, 2010).

Evidence supports the correlation between biological and environmental factors that contribute to social emotional development in the early years (Sampaio & Lifter, 2014). Infants are born with more than 100 billion brain cells that form vast neural connections from early experiences that will further impact brain development (Childhood on the Social Emotional Foundations for Early Learning, [CSEFEL] 2008). During this period of brain development, 700 neural connections are formed per second (Child Trends.org, 2015). In addition to an individual's biological makeup, brain development is influenced by the environment as well as the interactions between the infant and care giver (Meyer, Wood, & Stanley, 2013). The health and wellbeing of the infant/child are intimately related to the physical, emotional, social health and circumstances of the parent (Shah, 2010). The well being of the parent in addition to the quality of parental interactions will have a profound impact on the infant's development.

The secret ingredient to infant child mental health: Teaching parents to play

In the past, infant mental health services focused on parents who had a mental illness. Current models focus on the dynamic relationship between the child and parent as well as their strengths and vulnerabilities regardless of parent's mental health as the focus for treatment (Shultz-Krohn & Cara, 2000). Early identification of issues in mental health can change the trajectory of development and improve outcomes (Bolten, 2012; Nakamura, Stewart & Tatarka, 2000). The use of a family centered approach utilizing concepts for infant mental health is essential during the early intervention process (Shultz-Krohn & Cara, 2000).

The New Jersey Early Intervention System (NJEIS) is a statewide program under the Department of Health for infants and children 0 to 3 years with developmental disabilities and their families in the New Jersey. Salem County accounts for 1% of the statewide referrals (New Jersey Department of Health, n.d.). The NJEIS is accountable to the federal government Office of Special Education Programs (OSEP), reporting on an annual basis. In 2014 the OSEP gave states a new requirement called the State Systematic Improvement Plan (SSIP). This allowed states to design a 5 year plan designated to improve child outcomes in one or more area. The NJIES chose social emotional skills based upon their data (New Jersey Early Intervention Program Statewide Conference, 2016). This Capstone supports the recommended practices of the Division for Early Childhood, Council for Exceptional Children (DEC) and the NJEIS selected practice areas of coaching families (INS13); child interactions that promote social emotional development (INT2); and family capacity building (F6) (NJEIS Statewide Conference, 2016).

The secret ingredient to infant child mental health: Teaching parents to play

The AOTA's Occupational Therapy Practice Framework (2014) addresses both the domain for social and occupational injustice and the process of occupation-based practice through development of programs based upon new opportunities, for example, community mental health is an emerging niche within the profession. This program supports the AOTA's Centennial Vision and is based upon science and will produce evidence to improve treatment and meets the current needs of society.

The political climate regarding interest in mental health has changed, yet the commitment to these changes remains relatively unaffected. Although legislation has been bought forth within the past 3 years, it has failed to make it to the appropriate committees for further approval. The Strengthening Mental Health in Our Communities, H.R. 4574 supports further research in this area. H.R. 4574 is legislation referred to subcommittee July, 21, 2014 (Congress.gov, 2016) where it remained and died in Congress in 2016 (Govtrack.us, n.d.). The purpose of legislation is to improve access of individuals with mental health issues to community based services; make new investments in prevention and early intervention and to advance mental illness research.

In June of this year, the United States House of Representatives voted in favor of the Helping Families in Mental Health Crisis Act of 2015 (H.R. 2646). The bill addresses the need to support promotion, treatment and intervention programs for very young children. This bill focuses on a comprehensive mental health reform focusing on addressing issues of mental health to include infants from birth (Zero to Three, 2016). As of July 6, 2016, this bill has been placed on the table (Congress.gov, 2016). The AOTA solicited it members to contact state politicians

encouraging them to support this pending legislation recognizing occupational therapy as a component to the mental health workforce (Noel, 2016).

Significance of study

This study is significant by contributing to evidence-based research for practices through an occupational therapy lens, increasing the profession's knowledge base and making contributions to other disciplines. The purpose is to increase awareness and understanding of mental health issues in infants and children and to provide a framework to conceptualize a model for assessment and intervention through the use of play to improve infant child mental health that can be used by multiple disciplines.

This research will improve healthcare policy, outcomes and service delivery by creating evidence to support legislation and funding for expansion of services for underserved populations; improving access and addressing issues of social injustices within the community; and through development of home and community based programs that focus on development of social-emotional well being at early ages.

Summary

This Capstone Project supports the foundation for further research to create a framework for assessment, intervention and program planning and development of an Infant-Child Community Based Mental Health Program in conjunction with the NJEIS in Salem County New Jersey. The project is based upon the components of the educational criteria addressing the themes of occupational based practice, issues of diversity, demonstration of leadership, and use of clinical reasoning. The area of community based mental health is an emerging niche within the profession. Infants and children birth to 3 years of age are vulnerable and severely

underserved in the area of mental health services. Infant- child mental health and family support is an area that requires further research. The program objectives are embedded within a solid and diverse framework and support the current needs of society along with current healthcare trends.

Section 2: Review of the Literature.

Literature was reviewed through a library search using the following keywords: attachment, infant mental health, play, co-occupation, coaching, social emotional skills, development, parent-infant dyads, infant-parent play, attachment theory, and occupational performance. Academic Search, CINAHL, PsychInfo, EBSCOhost, World Cat, and Academic Scholar Complete were used as search engines to identify pertinent literature. Articles were located and evaluated to meet the needs of this project. Following analysis, the topics that evolved were organized under attachment; social emotional development; play; family capacity-building and coaching.

Over the past 4 decades there has been extensive research demonstrating the importance of parent-child attachment fostering social-emotional skills that are the foundation for infant mental health and well being (Askoy, 2011; Case-Smith, 2013; McAtamney, 2011; Nelson & Mann, 2011; Shah, 2010). Much of this literature has come from other fields of study, particularly psychology, psychiatry, sociology and nursing. The literature demonstrates a need for theory to be incorporated into practice across disciplines as well as the need for further research (Askoy, 2011; Bolten, 2013; Case-Smith, 2013; Cousins, 2013: Humphry, 1989; Meredith, 2009; Shah, 2010). Currently literature is scant but emerging in the field of occupational therapy.

The secret ingredient to infant child mental health: Teaching parents to play

Attachment

The theory of attachment [Bowlby, 1958] is considered to be the best supported theory in social emotional development (Meredith, 2009). Attachment provides both the foundation and the formation of parent-child interactions. The infant's brain is genetically programmed for attachment (CSEFEL, 2008; Sampaio & Lifter, 2014). Within the first few weeks after birth, the infant becomes more active within the attachment relationship (Aleksandrowicz, 2010).

Attachment relationships include proximity seeking to a preferred person so that trust can be established and a secure base can be formed for the infant/child to advance developmentally. The attachment system is developed and maintained through interactions between the child's developing cognitive capacities and the caregiver response within the context of the environment (Meredith, 2009). Difficulties within the attachment system can have profound effects on cognitive, social and language development (Askoy, 2011; McAtamney, 2011). Bowlby identified four phases of attachment; 1) the pre-attachment phase (0 to 6 weeks of age); 2) the attachment in the making phase (6weeks to 6 to 8 months); 3) "clear cut" attachment phase (6 to 8 months; to 18months to 2 years); and 4) the formation of reciprocal relations (18 months to 2 years on) (Balan, 2013).

Mary Ainsworth operationalized John Bowlby's attachment theory in the 1970's. Through her work, she was able to identify patterns in attachment through the Strange Situation Procedure (SSP), considered the gold standard for identifying parent-infant attachment (Zeanah et al., 2011). In the broadest sense, attachment relationships can be described as secure and insecure (Whitcomb, Carrasco, Neumann & Kloos, 2015). Secure attachment relationships are demonstrated through behaviors in reciprocity of interactions, affect, in addition to exploration

with reunification (Whitcomb, et al., 2015). By contrast, insecure attachment relationships demonstrate unpredictability or ambivalence in responses within the relationship (Whitcomb, et al., 2015). When an infant or child becomes distressed, the attachment system is activated. The attachment system works in tandem with the exploratory behavior system. When one of the systems is activated, the other system becomes inactivated (Zeanah, et al., 2011). The parent-infant relationship can be strengthened through parent behavior that emphasizes mutual enjoyment, encourages infant competencies and shows warmth and affection that reinforces engagement behaviors from the infant (Chen, Klien, & Minor, 2008; Peterson, Luze, Eshbaugh, Jeon, & Kantz, 2007).

Improving attachment within the parent-infant dyad is thought to be critical in promoting infant mental health (Cousins, 2013). Areas of focus to improve parent-child interactions include parent responsiveness and sensitivity, promoting the ability for the parent to read and interpret both verbal and nonverbal communication, in addition to supportive parenting behaviors (Askoy, 2011; Peterson, et al., 2007; Schneider, 2009).

Both Bowlby and Ainsworth place emphasis on the importance of the power of nonverbal communication during parent-child interactions (Totora, 2010). Infants are involved in communicative interactions before they have the ability to speak or understand language. Communication itself is critical for establishing interactions and co-occupations (Csibra & Shamsudheen, 2015). In fact most communication is nonverbal and is vital in communication. Dr. Albert Mehrabain (1981) termed the “3 V’s” of communication, verbal, vocal and visual. Through his research, Dr. Merabain states that 7% of any message is conveyed through words; 38% is conveyed through vocal tone, and 55% are nonverbal elements (Merahbain, 1981).

The secret ingredient to infant child mental health: Teaching parents to play

Social emotional development

Social-emotional wellbeing in the early years is essential in establishing a foundation of successful relationships with family, peers and teachers, (Case-Smith, 2013; Nelson & Mann, 2001, New Jersey Council of Early Childhood, 2013) and is crucial to the development of cognitive, language and adaptive life skills. Social emotional skill development is considered to be the "secret ingredient" for future success in school and in life (Yates, 2011).

Social emotional development is intimately related to the quality of the early parent child relationship (Shah, 2010). Research has demonstrated the relational and contextual factors influencing social emotional skills development in infants and young children (Shah, 2010). The primary aim of services in infant mental health is to support the family and promote social-emotional wellness (Nelson & Mann, 2011). In terms of assessing an infant/child for mental health issues, there needs to be close consideration regarding the mental health and the interplay between the behaviors of the caregiver and the infant (Bolten, 2012; McAntmney, 2011). This includes interrelational disruptions, such as environmental factors, isolation, abuse or exposure to violence, or in intrarelational disruptions, those embedded within the individual by way of interactions of internal sensory or motor systems (Whitcomb et al., 2015). Aberrant environmental conditions and maternal issues related to attachment have a greater negative impact on infant child mental health than abnormal child development (Zeanah etal., 2011),

Core competencies of social emotional development

The literature organizes the core competencies for healthy social emotional development as 1) the ability to form close relationships; 2) the ability to express and regulate a variety of

emotions; and 3) the ability to explore the environment and learn (Cousins, 2013; CSEFEL, 2008; Sampaio & Lifter, 2014; Zero to Three, 2016). These competencies are reinforced when the primary caregiver is available and responsive to the infant/child's needs when the attachment or the behavioral system is activated. The infant/child learns to trust the caregiver, establishing a sense of security fostering the infant/child's self awareness and identity along with a sense of autonomy and independence.

Play

Literature demonstrates the importance of a parent's impact on play and is considered to represent socialization in infancy (Askoy, 2011). Play is an activity that can enhance social emotional relationships in a naturally occurring environment. Play is the primary occupation of children (Schneider, 2009), fostering engagement between individuals and their environment, and encompassing most of their day (Pierce, Munier & Myers, 2009). Play is considered a developmental domain requiring competence, (Casby, 2003, Schaff, 1990) and is an effective learning tool infants and young children use for interacting with their environment (Askoy, 2011). Observation of play interactions provides vital information regarding the developmental status of the child and their competence within their environment (Askoy, 2011, Schaff, 1990, Schneider, 2009). Mother-infant play assists in the physical, social, cognitive, linguistic skills as well as promoting self awareness and social abilities (Askoy, 2011, Casby, 2003, McAtamney, 2011, Schaff, 1990, Schneider, 2009).

The quality and quantity of play is dependent upon the presence and quality of the play partner (Askoy, 2011). Family members provide a vital role in the play interactions through providing opportunities for engagement through play, setting up and managing the play

environment and the play objects choices (Pierce, 2000, Pridham, Becker, & Brown, 2000, Coughlan & Lynch, 2011, Schneider, 2009). The nature of play has been studied across environments. Play spaces are significant in providing opportunities for play to occur and varies across settings. Children were most playful at home in close proximity to their parent reinforcing the idea that play in the home is a social occupation (Coughlan & Lynch, 2011). The use of the social environment is essential for a family centered approach in occupational therapy.

The process of co-occupation occurring within the context of play is an essential tool within play. Co-occupation is a term coined by Dr. Doris Pierce in 1990. In her original definition, co-occupation is described as being highly interactive in nature and refers to the occupation to which each participant interacts and shapes the interaction of the other (Pierce, 2009). It is transactional, with each participant's occupational performance depends upon the other. Co-occupation is a process. It develops between the parent and child, and strengthens the parent-child relationship (Price & Minor Stephenson, 2009).

Family capacity-building

In order to improve parental confidence and competencies in early intervention programs, the DEC (2014) has made recommendations for providers regarding family practices. These recommendations include services being family centered with collaboration between family and professional, and encompass family capacity-building. Family capacity-building is a central feature of the early intervention program (Dunst, Bruder, & Espe-Sherwindt, 2014). The primary goal of the family capacity-building paradigm is to have the parent participate in creating opportunities and carryover of techniques/strategies fostered during the session with the early

intervention practitioner, to improve child outcomes and gain competencies and confidence. The use of coaching models supports this central feature.

Coaching

Coaching techniques gained popularity in the 1980's for personal and professional growth (Kessler & Graham, 2015). Evidence supports the use of live coaching techniques to improve positive parenting skills (Wade, Oberjohn, Canaway, Osinska, & Bangert, 2011). Coaching is defined as "a reciprocal process between a coach and learner comprised of a series of conversations focused on mutually agreed upon outcomes "(Peterson, et al., 2007). Coaching strategies include modeling, prompting, listening and problem solving. Multiple methods and models of coaching strategies have been demonstrated in the literature. Occupational therapists use coaching in diverse ways within their practice. Coaching involves providing support, encouragement and specific feedback during the learning process (Peterson, et al., 2007). The coaching process in enhanced when conducted within the natural setting, using natural conditions (Dunst et al., 2014). Research demonstrates that parent training is more successful when parent practices skills during the session (Shanley & Niec, 2010).

Summary

The field of infant child health is multidisciplinary (Shah, 2010), with each discipline making contributions through its professional lens. Recurrent themes within the literature validate the importance of the parent-child interaction for the development of social emotional skills and its positive impact on infant mental health. Pediatricians are called to conduct social-emotional screening for infants and toddlers in primary care (Briggs, et al., 2012; Shah, 2010). The disciplines of psychiatry and nursing call for improved assessments tools for assessing

parent-child interactions to improved interventions (Bolten, 2012: Cousins, 2013; McAtamney, 2011). Infant mental health practitioners are called upon to influence and support public policies in the area of social-emotional wellness in young children (Nelson & Mann, 2011). The current focus within the NJEIS supports social emotional development within this target age group as well as the use of a family coaching model focusing on family capacity building. Many states are following, adopting social-emotional skills as their mandated early childhood State Identified Measurement Result (Little, Wallisch, & Irvin, 2016). Research suggests that occupational therapy interventions can result in positive outcomes for social-emotional development in young children (Little, et al., 2016). The profession of occupational therapy is well versed in addressing the fundamental base for improving infant mental health through the use of parent and infant/child occupational behaviors using the occupation of play within the natural setting.

Section 3: Methods

Project Design

This is a mixed methods evaluation approach using a descriptive design of pre and posttests, measuring changes in parent's perceptions of attachment behaviors; child's occupational performance and core competencies of social emotional development skills using a coaching model with a family capacity-building approach within the home setting.

The specific outcomes of the Capstone Project are to ascertain the success of using a family capacity- building coaching model during the co-occupation of play sessions to improve parent attachment behaviors and interactions that promote social emotional skills development of infants and children within the home setting. Do parental perceptions of the importance of these

The secret ingredient to infant child mental health: Teaching parents to play

interactions to promote mental health wellbeing change as a result of participation in the sessions?

Participants

A non-randomized purposive sample was chosen due to the specific criteria for participants in the study. The criteria for participation were parent /child dyads 0 to 3 years of age, living in Salem County New Jersey, who will volunteer for the program based upon their interest or concerns regarding social-emotional development skills encountered during play sessions. Participants agreed to participate in 5 sessions over the course of six weeks. Participants were recruited through the use of flyers and word of mouth and through early intervention practitioners. The researcher completed a presentation to early intervention providers to introduce the topic of Infant Child Mental Health (ICMH) and to inform them of the study. Once the team at Salem County NJEIS was aware of the study, they identified families who may be appropriate based upon the inclusion criteria. The practitioners provided the researcher with parent contact information for parents who stated an interest in the study. The researcher made contact with each potential parent participant to set up the initial session after confirming they met the inclusion criteria and confirmed their desire to participate. Seven participants were interested in the study. Two did not meet the criteria for age and two were not able to commit to number of sessions required, resulting in three total participants willing to engage during the study period.

Upon the first session, informed consent was reviewed and signed along with obtaining voluntary demographic information from the participants. A written overview of the sessions was provided to all participants. This information is found in Appendix A.

The secret ingredient to infant child mental health: Teaching parents to play

Participant #1 (P1) was a 34 year old female with college education who works part-time outside the home. Mother, Father, child and 2 siblings reside in the home. The child was a 2 and half year old female. The child participant had no medical conditions. Participant #1 reported concerns for the child's development for speech and social play. Behavioral concerns included the child having "many meltdowns". The family was receiving Early Intervention Services through NJIES.

Participant #2 (P2) was a 28 year old female with some college education who worked outside the home full-time but was currently not working during the study period. Mother, Grandmother, child, and older male and female siblings reside in the house. The child was an 18 month old male. The child had a diagnosis of apraxia of speech and received services through the NJIES. Parent concerns for development included "apraxia, sensory issues, people interactions, self help". The parent denied any concerns regarding their child's behavior.

Participant #3 (P3) was a 34 year old female with a Master's degree who worked outside the home full time during most of the year. Mother, Father, and an older sibling reside in home. Participant child is a 15 month old female. There was no pertinent medical history or concerns regarding the child's development or behavioral concerns.

Setting

The home setting was used with a family-centered approach focusing on family capacity- building. The home setting was advantageous in offering a large volume of qualitative information offsetting any potential bias to the study. The parent participants appeared at ease during face to face interactions thus improving the quality of the information obtained. The

researcher was able to obtain large volumes of qualitative information through narratives and the use of probing questions to deeper explore issues the parents were willing to discuss. This also allowed the researcher the opportunity to observe play in the natural context, shaping understanding of the parents reality of play and the cultural context in which it occurs.

Grounded theory research was utilized during this research. Grounded theory is used to generate or discover a theory from the results of a process. It is grounded in data derived from individual participant experiences during the research process (Creswell, 2013). It helps to develop categories to help explain a phenomena during examination of qualitative data (Pierce, 2000). Grounded theory supports the qualitative process used to reflect participant understanding and comments about participation in the study (Cresswell, 2013).

Quantitative data collection was gathered through pretest and posttest surveys (Appendix B; Appendix C). Face to face, one to one person interviews were conducted. There was the opportunity to review documents regarding any medical diagnosis, prior screenings or information the participants choose to share with the researcher. The information in the survey focused on assessing and monitoring changes in parent attachment behaviors using a four-point Likert scale. The pretest survey allowed the opportunity to gain information regarding parent attachment behaviors of mutual enjoyment, infant capacities and parent awareness and responsiveness. Parents were prompted to provide examples to their answers to assist the researcher understanding. Additional information was obtained in the pretest surveys to ascertain parental concerns in areas of occupational performance that included overall behaviors, sleeping and eating.

Qualitative data was accumulated to verify and qualify changes that occurred during intervention. This was completed during the final session utilizing the posttest survey, narrative interviews and utilizing probing method for parents to expand upon their answers and to elaborate upon their experiences. The researcher maintained a reflective journal and field notes to collect observational data during sessions and reflection upon each session when completed.

Procedures

This study is a pilot program to be developed through the NJIES. A coaching model was used for parents learning to play with their children ages 0 to 3 in order to promote social emotional skills development and to improve deficits in occupational performance. A typical play session with parent within the home environment was observed. Parent sessions consisted of 4 consecutive one-hour weekly sessions with a follow up 2 weeks after last session. At this time the postsurvey was completed along with narrative information.

The focus of the sessions consisted of observation, coaching and collaborative planning and reflection. Session one focused on discussion of research project and explanation of the how the session would run. Parents were provided with written information and informed consent was obtained. The parent participated in completing the pre assessment survey and an observation of parent child play was conducted. Narratives were given by parent's stating any areas of concern or perceptions regarding development or play interactions. After several minutes of discussion and observation or play interactions, the parent was coached into thinking about how the chosen activity could be used to promote social emotional development and improve interactions within the dyad. Toward the end of the sessions, the parent and researcher reflected upon what was observed during the session and both collaborated on activities or strategies to be used during the

week to promote an area of social emotional development and/or a concern regarding occupational performance. A sample intervention session is listed in Appendix A.

Data Analysis

Descriptive statistics were used to analyze the data. All data from the pretest and posttests were compiled in an Excel spreadsheet 2007. Responses to open ended questions were analyzed using a constant comparative method. Data interpretation included all data obtained from questionnaires, observations, interviews, and the researcher's reflective journal. No other materials were utilized during the study.

Quantitative analysis was completed first, in order to assess perceived changes in parent perceptions in attachment behaviors based upon the Likert rating scale obtained pre and post coaching sessions. The posttest session surveys were different from pretest surveys. The 10 questions in the pretest survey were provided and reframed in the post survey and compared. Posttest survey included five additional questions. Qualitative analysis of pre and post survey responses was conducted based upon parent narrative responses and comments in an attempt to clarify and qualify parent perceptions and to help conceptualize play from each of their perspectives. Fieldnotes and researcher's reflective journal were triangulated with the other forms of data.

Ethical Considerations

Approval for research was obtained thorough the Institutional Review Board at Eastern Kentucky University. Respect for the participants rights, needs, values, culture and desires were employed at all times in addition to the confidentiality of all parties involved in the study. The procedure regarding objectives and ability to withdraw from study at any time were provided in

writing and articulated verbally with the participants prior to the study. Written permission was obtained and a copy was provided to each participant.

Validity

Terms used to describe validity in qualitative research are trustworthiness, authenticity and credibility (Creswell, 2014). The researcher obtained interview training, reflexivity through maintenance of a journal to reduce bias, and triangulate data utilizing multiple methods of data collection and analysis. Member checking was offered to all clients which added clarity, accuracy and precision to the qualitative data collected. The first few minutes of each session was dedicated to review of what happened during the last sessions, how implementation of strategies worked and collaboration of new ideas if barriers were identified.

Outcome measures

Outcomes measures were completed through the quantitative data analysis of parent surveys during pre/post intervention and qualitative analysis through parent narratives. The pretest survey questions focused on gaining information on the current levels of attachment perceived by parents that reinforce engagement behaviors of mutual enjoyment (Q7,8,9); infant competencies (Q4,5); and parent awareness and responsiveness (Q1,2,3,6, 10). Post survey questions included the pretest survey questions restated in addition to probing questions regarding parent conceptualization of play and their perceptions regarding the intervention.

Qualitative data was used to explore and measure the relationship between parent attachment behaviors and core competencies of social emotional development (CCSED). Outcomes measured were 1) improved parent perception of play skills (CCSED 3a forming close

relationships (Cousins, 2013; CSEFEL, 2008; Zero to Three, 2004); and 2) improved child occupational performance in area of concern (CCSED 3b, the ability to express and regulate emotions; and CCSED 3c, in areas of occupational performance including the ability to learn and explore environment (Cousins, 2013; CSEFEL, 2008; Zero to Three, 2004).

SECTION FOUR: RESULTS AND DISCUSSION

Introduction

The research is based in mixed methods program evaluation approach, combining quantitative and qualitative data, using a grounded theory approach. This section is an analysis and discussion of the results of both quantitative and qualitative contextualized upon each individual participant's area of concern. Tables are used provide additional information to support the findings.

Results

Parent attachment behaviors

Quantitative outcome 1: Parent engagement behaviors

All participants agreed or strongly agreed that they enjoyed their role as a parent, felt they have support, enjoy playtime with their child and felt connected to the child, although two participants reported there was no change in the feeling of connectedness. A slight positive change was noted for P3 in all of the three subcategories of engagement behaviors. Table 1 presents this data.

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Table 1 Outcome 1: Parent engagement behaviors

Outcome 1: Parent engagement behaviors	*Question #*	*Pretest survey parental response*	*Question #*	*Posttest survey parent response*	*Change in responses Pre/posttest survey*
Enjoy parent role	#7	2SA 1A	#4	3SA	P3 pre 2 to post 3
Has support	#8	2SA 1A	#2	3SA	P3 pre 2 to post 3
Enjoys playtime	#9	2SA 1A	#3	2SA 1A	P1 pre3 to post 2* P3 pre 2 to post 3
Change in feeling connected to child			#13	2D 1A	

0= Strongly Disagree (SD) 1= Disagree (D) 2= Agree (A) 3= Strongly Agree (SA)

Quantitative outcome 2: Infant competencies

Infant competencies measure the child's self-regulatory behaviors. This information was obtained in order to determine if there was improvement in areas of occupational performance. These competencies include the child's self regulation behaviors including sleeping, eating, and overall behavioral interactions. Table 2 presents this data in summary form. The area of behavior was not a concern for P3 and there was no change in sleeping which was a concern for P1. Overall all parents reported some improvement with eating, 66% reported improvements in sleeping and child calming behaviors after engaging in the program.

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Table 2 Outcome 2: Infant/child competencies

Outcome 2: Infant/ child competencies	Question #	Pretest survey parental response	Question #	Posttest survey parent response	Change in responses pre/posttest survey
My child sleeps through the night	#4	1SD 1D 1A	#8	1SD 1SA 1A	P1 no change SD P2 pre 2 to post 3 P3 pre 1 to post 2
My child is a picky eater	#5	1SA 1 A 1D	#9	1SA 2A	P1 pre 3 to post 2 P2 no change P3 pre 1 to post 3
My child's behavior has improved during this intervention			#11	2A 1 D	P2 disagreed

0= Strongly Disagree (SD) 1= Disagree (D) 2= Agree (A) 3= Strongly Agree (SA)

Quantitative outcome 3: Parent awareness and responsiveness

Questions # 1, 2 and 10 measured parent awareness. All participants reported an improvement in their ability to understand and/ or anticipate what the child wants prior to the child becoming upset. There was no reported change in parent understanding of the child's development over the 6 weeks, as they noted agreement with this concept initially. Table 3 presents the raw data.

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Table 3 Outcome 3: Parent awareness and responsiveness behaviors

Outcome 1: Parent awareness/ responsiveness behaviors	Question #	Pretest survey parental response	Question #	Posttest survey parent response	Change in responses pre/posttest
I am able to tell what my child wants	#1	2A 1D	#5	2 SA 1A	P1 pre 1 post 3 P2 pre2 post 3 P3 pre/post 2
When my child is upset I can calm him/her down	#2	3A	#6	2A 1 SA	P2 pre 2 to post 3
I know what my child wants before they tell me	#3	3D	#7	2 SA 1A	P1 pre 1 to post 2 P2 pre 1 to post 3 P3 pre 1 to post 3
My child cries for no reason	#6	1SA 1D	#10	1A 2D	P1 pre 3 post 2 P2 no change P3 no change
I understand my child's development	#10	3A	#1	3A	No change

0= Strongly Disagree (SD) 1= Disagree (D) 2= Agree (A) 3= Strongly Agree (SA)

Qualitative analysis

Qualitative analysis includes parent conceptualization of play in addition to the 3 primary outcomes 1) improved parent perception of play skills; 2) improved child occupational performance in area of concern (adaptive self help, sensory, communication, play) and 3) reported improvement in one or more of the core competencies of social emotional development (SED); (3a) the ability to form close relationships; (3b) the ability to express and regulate a variety of emotions; and (3c) the ability to explore the environment and learn.

The secret ingredient to infant child mental health: Teaching parents to play

Conceptualization of play

In order to conceptualize play from the parent perspective, parents were asked to describe what play is and why they play with their child. Emergent themes identified were parental enjoyment, and the enhancement of developmental skills. P2 and P3 reported that play was fun. P1 reported that play was and it was anything that was "anything you do using imagination, creativity and is active". The purpose of play involved facilitating developmental skills. P1 reported that play builds relationships. P2 reported that it helps with their child's development and P3 included both relationships and learning as the purpose for play.

Primary outcomes

The following outcomes were based upon individual parental concerns identified during the initial intake session or subsequent visits. Based upon field notes and reflection journal, other areas of difficulties were identified or reported on subsequent visits. The data from posttest surveys were also integrated when appropriate with the outcomes to ascertain validity in data collection for each of the three participants.

Participant 1 (P1) outcomes focused on improving child engagement during play while alone or with parent, siblings and peers, including the quality of play; communication, improved eating variety of foods, sleeping and self-regulation. Table 4 demonstrates a synthesis of quantitative data that measured the individual outcomes, parent narratives and outcomes measured for P1.

Participant 2 (P2) outcomes focused on improved quality of play and engagement, sensory regulation for exploration of tactile stimuli, communication and self help skill of dressing. Table 5 presents a synthesis of data collected related to the participant outcomes.

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Participant 3 (P3) outcomes focused on improved sleeping, oral motor skills, communication and self-regulation. Table 6 presents a synthesis of data collected.

Table 4 Parent Participant1 outcomes

Participant 1 Parent Outcomes	*Posttest survey questions*	*Parent narrative responses*	*Outcome Measures*
Improving child engagement during play while alone or with parent, siblings and peers	Q1 Q3	• specifically with play, child plays better with toys and better with transitions • I definitely enjoy it more, it was frustrating at times, but now child plays more appropriately • Being able to help calm and direct child into more engagement with others	#1, #2, #3a #1, #2 #2, #3b
Improved quality of play	Q13 Q11	• We have more fun together, I get to play more • child is more agreeable and less likely to say no to requests	#1, #2 #1, #2, #3a
Communication	Q5	• communication has improved	#2
Improved eating variety of foods	Q9	• child is trying new food items because I present her with new something new	#2,#3c
Sleeping	Q8	• I have her on a structured nap schedule	#2
Self regulation	Q4 Q10 Q15	• It's becoming a little easier, child has less melt downs • she is a little easier to self calm and is less frequent over the past month • Being able to help calm and direct child into more engagement with others	#3b #3b #1, #3a,b

Outcome 1: Improved quality of play Outcome 2: Improved occupational performance
Outcome 3a: Trust/security/ relational 3b Self regulation 3c Exploration/independence

Table 5 Parent Participant 2 outcomes

Participant 2 Parent Outcomes	*Posttest survey questions*	*Parent narrative responses*	*Outcome Measures*
Improving child engagement during play while alone or with parent, siblings and peers	Q1	• yes, in social skills • engaging with peers	#1, #2, 3a
Improved quality of play	Q13	• more laughing • coming up with his own play ideas • playing with new toys	#1, #2, #3c #1, #2#3c #1,#2, #3c
Communication	Q5	• yes, child has improved in communication, gestures and signs	#2
Sensory exploration	Q6	• yes, through cuddling	1#,#2,#3a, c
Adaptive self help-dressing	Q8	• using utensils more • undressing	#2, #3c

Outcome 1: Improved quality of play Outcome 2: Improved occupational performance
Outcome 3a: Trust/security/ relational 3b Self regulation 3c Exploration/independence

Table 6 Parent Participant 3 outcomes

Participant 3 Parent Outcomes	*Posttest survey questions*	*Parent narrative responses*	*Outcome Measures*
Improved sleeping	Q8	• Better, occasionally gets up. Looks for something to put in her mouth	#2
Improved oral motor skills	Q1	• Yes in the area of sensory skills and in promoting independence with my child for feeding • better eating more hard foods	#2, #3c
Communication	Q5	• my child is more verbal and able to express herself, makes it easier for me to understand her and it less frustrating for me	#2, #3a

		• less melt downs, more communication, asking 'WH' questions.	#3b
Self regulation	Q6 Q12	• using the sensory strategies has helped me calm her down • I learned strategies for play, sensory issues, improve child independence with foods	#2,#3b #2, #3b

Outcome 1: Improved quality of play Outcome 2: Improved occupational performance
Outcome 3a: Trust/security/ relational 3b Self regulation 3c Exploration/independence

Qualitative analysis revealed all participants reported improved parent perception of play. This was not an outcome for P3, however, P3 reported improvement in play on the quantitative scale. There was also improvement in 3 or more areas of occupational performance reported by each participant. Occupational performance initially included adaptive self help, sensory, and the occupation of play. Qualitative analysis showed that all three participants commented on improvement in communication and or verbal abilities, therefore it was added to this area.

All participants reported improvement in at least 3 or more areas. All participants reported improved communication, sensory skills or self- regulation; play (play engagement and or quality of play), and adaptive self help which included dressing, feeding; and sleeping.

All participants reported improvement in all three core capacities of social emotional development (Cousins, 2013; CSEFEL, 2008; Zero to Three, 2004). All parents reported improvement in forming relationships and relational abilities (trust/security) describing their ability to assist child in self calming is better. P1 and P2 reported improvement in their child's ability to play with others. All three participants reported an improvement in the child's ability to self- regulate as evidenced by the child's improved ability to calm self with less "melt

downs". P2 reported an increase in child's affect with increased laughing. All participants reported improvement in exploring/learning behaviors. P1 reported improvement in trying new foods and transitions in activities. P2 reported more exploratory play and initiation of new play ideas and improvement in independence with dressing skills. P3 reported improved independence with the child feeding self and eating new foods. Table 7 represents overall improvements reported by participants post intervention.

Table 7 Reported improvements in outcome measure of all participants

Participant	*P1*	*P2*	*P3*
Conceptualized play: *enjoyment/ improved development*	*x*	*x*	*x*
Parent attachment behaviors			
Engagement	*x*	*x*	*x*
Infant competencies	*x*	*x*	*x*
Responsiveness/sensitivity	*x*	*x*	*x*
Play skills			
Quality of play	*x*	*x*	*x*
Play with others	*x*	*x*	*x*
Occupational performance			
Eating	*x*	*x*	*x*
Sleeping		*x*	*x*
Adaptive self help	*x*	*x*	*x*
Sensory regulation	*x*	*x*	*x*
Communication	*x*	*x*	*x*
Social emotional development/Infant child mental health			
Relational	*x*	*x*	*x*
Emotional regulation	*x*	*x*	*x*
Exploration/Learning/Independence	*x*	*x*	*x*

The secret ingredient to infant child mental health: Teaching parents to play

Discrepancies in quantitative and qualitative responses

There were a few discrepancies noted in quantitative changes and qualitative responses. In the area of attachment for parental engagement regarding enjoying play time, P1 reported a pretest survey response of strongly agree, and a posttest response of agree. In the posttest narrative response, P1 reported "I definitely enjoy it more, it was frustrating at times, but now child plays more appropriately".

There also appears to be incongruence with P1 response regarding improvement in child competency regarding eating skills. P1 reported no improvement on pre and posttest surveys. Upon intake data, P1 reported the child eating only 12 food items. Upon posttest survey narrative, P1 stating "child has been eating and trying new foods".

In the area of parental awareness and responsiveness; the ability for parent to tell what child wants, P3 reported no change, however, post survey narrative response indicated an improvement, "my child is more verbal and able to express herself, makes it easier for me to understand her and it less frustrating for me".

There was no reported change in parent understanding of the child's development upon the quantitative scale. All participants "agreed "upon pre and posttest surveys, however, upon posttest survey responses, qualitative changes were identified by all participants. Q1 of the posttest survey states "I have a better understanding of my child's development" P1 reported improvement in play and transitions. P2 reported improvement in social skills and P3 reported a better understanding of sensory skills and promoting child independence with eating.

Analysis of quantitative and qualitative data reveals improvements in all outcomes areas for parent attachment behaviors, child occupational performance and in all core competencies of

social emotional development. This supports the use of a coaching model within the home environment using the co-occupation of play that focuses on the three core competencies of social emotional development (Cousins, 2013; CSEFEL, 2008; Zero to Three, 2004). This approach appears to have a strong positive impact in the area of occupational performance, including play and communication, and the core competencies of social emotional development, reinforcing the foundation needed for improved infant/ child mental health outcomes.

Discussion

All participants demonstrated a strong foundation in parent attachment behaviors. All participants reported improvements in all areas including parent engagement, infant capacities and parental awareness and responsiveness that may have contributed to parents perception of improved communication skills. Evidence shows that attachment is the foundation for parent child interactions. Improving parent-child interactions is the best way to promote infant child mental health (Bolten, 2012; Cousins, 2013; Humphry, 1989, McAtamney, 2011; Shah, 2010).

Each participant reported concerns in the area of infant competencies according to Bowlby's Theory of Attachment where the foundation of parent-child interactions emerges into a relationship of trust and security, allowing for the child to develop independence. Reported concerns were revealed during the course of the 5 sessions across 6 weeks, suggesting that parents were more willing to share information about their concerns over time after a rapport was established with the researcher. Through the researchers' use of prompting, parents demonstrated

an improvement in their understanding of the child's development and the child's perception of play. Parent-child interactions are improved when parents have knowledge or their child's development, and feel confident in their parenting roles (Yates, 2011).

All participants reported that they engaged in play with their child for mutual enjoyment and to enhance developmental skills. All reported an improvement in the quality of their child's play and interactions with others, including siblings. The literature establishes the importance of a parent's effect on play and is representative of socialization in infancy (Askoy, 2011). The use of coaching during play may have improved parent understanding of play from the child's point of view. By using the coaching model, the researcher provided support, encouragement and specific feedback (Peterson, et al., 2007) to encourage the parent to explore play as a co-occupation. Co-occupation occurs during interactions between individuals within an occupation, in this case play. Each active participant has their own meaning and purpose to the interaction. Through co-occupation, each participant contributes, shapes and shares during the interaction influencing, reinforcing and developing a new perspective. These skills may have further been enriched by using the family capacity-building model (Dunst, et al., 2014) embedded in coaching. At the end of each session the parent and researcher collaborated on what and when the parent was able to work on a particular skill, which is the primary goal of the family capacity-building paradigm.

All participants reported improvements in four areas of occupational performance; play, adaptive self help, sensory skills and communication. Improvements in quality of play and adaptive self help appear related to improvement in the social emotional development core

competencies trust and independence. These findings support current evidence that social emotional wellbeing in the early years is essential in establishing a foundation for lifelong relationships (Case-Smith, 2013; Nelson & Mann, 2001, New Jersey Council of Early Childhood, 2013), and is crucial to the development of cognitive, language and adaptive life skills. Parent engagement and improved understanding of the co-occupation of play may have contributed to improvements in occupational performance.

Improvement in communication was not expected, yet this skill may have been instrumental in fostering improvement in each domain. Improvement in parent awareness and responsiveness to verbal and nonverbal cues may have contributed to a better understanding of the parent in supporting their child during these activities (Paavola, et al., 2015). Infant/child mental health is improved through supportive parenting that includes parent sensitivity, awareness, responsiveness and the ability to interpret verbal and nonverbal cues (Askoy, 2011; Peterson,et al., 2007; Schneider, 2009). All parents reported some improvement in sensory skills. Emerging evidence suggests that there is a relationship between attachment and sensory modulation (Schore & Schore, 2008; Whitcomb, et al. 2015). Thus through improvements in communication, attachment is reinforced.

All participants reported improvement in all core competencies of social-emotional development that included relational components of trust that was achieved and reinforced through strong parent attachment behaviors of engagement. Parents reported improvement in child emotional expression and regulation that was influenced by improved parental awareness and responsiveness, and improved exploration and independence that were facilitated through the establishment of a safe base and parental confidence. This Capstone research supports the

evidence that the attachment system has profound effects on cognitive, social and language development (Askoy, 2011; McAtamney, 2011). Attachment is both the foundation and the formation of parent-child interactions. Through attachment relationships trust is established and a secure base can be formed for the infant/child to advance developmentally.

The parents in this study demonstrated secure attachment relationships with their child in addition to physical and emotional availability at each session during this study. As an early intervention practitioner, parent availability during sessions can be a challenge, impacting a family capacity-building approach as well as outcomes. There are times where parents will attempt to escape the session, getting on the phone, attending to another task or leaving the play space. There can be a variety of reasons for this. Parents may be stressed and see these sessions as a way for them to take a break. Perhaps parents misunderstand the purpose of the sessions and think they should leave the play space. Some parents simply may not know how to play and others may not value the therapy sessions. Many parents may not feel confident in their role and may feel that the therapist can get the child to do things that they cannot.

Humphry (1989) describes three factors that affect parent's behaviors. They include, parent characteristics, parental stress and social supports and the child's characteristics. Information regarding a parent's occupational profile may assist the provider in understanding the parent's own childhood experiences, socialization processes, and educational level. Other factors to consider include the parent's personality, role identification and parental satisfaction (Humphry, 1989).

Parent educational level may have an effect on the success in using the coaching model. The coaching model is founded in adult learning theory. Andragogy is a concept popularized by Malcolm Knowles in the 1980's. Andragogy is the art and science of teaching adults to learn (TEAL, 2011). Knowles postulated a set of assumptions about adult learners. He espoused that adult learners are self- directed; draw upon life experiences; are ready and motivated to learn by internal factors (TEAL, 2011). A deficit in any of Knowles assumptions may impact the coaching model. It is essential that during the sessions, professionals take into consideration the parent's learning styles and abilities and modify instruction as needed.

The participants receiving early intervention services noted these providers as a source of support for them, however, this may not always be the case. Parents may feel that practitioners place demands upon them, inadvertently adding more stress. There may also be issues of isolation. Salem County is a rural community, making access to the limited resources difficult.

The child's developmental age, skills, level of disability and temperament can influence the child's occupational performance and influence the environment and contributes to parent – child interactions. Providing services in daycare as opposed to the home setting without the parent in attendance presents barriers during intervention. Although at times this is a reality for some families, communication with parents remains essential.

Strengths and limitations

This study supports the current literature in demonstrating the importance of the use of parent attachment behaviors as the foundation for social-emotional skill development thus improving infant child mental health. This study also provides a framework to begin conceptualizing a model for assessment and intervention utilizing the co-occupation of play with

a family capacity-building approach within the home setting. Through use of attachment theory as a theoretical base, we can develop tools for further assessment and interventions that support and reinforce parent-child interactions. The use of mixed methodology was important to being able to identify change over a short period of time. As evidenced within the discrepancies reported, qualitative data was a more sensitive indicator of change.

Limitations of this study include the small sample size due to time constraints for this research. However, there appeared to be interest and support from parents and practitioners within the community. Each of the participants reported some college or a college degree and may not be representative sample of the county.

The early intervention team had several more clients that they wanted to refer for the study. As practitioners, they identified several families that they felt may have benefited by participating. Many members of the team discussed the study with the parents, but the parents declined because of lack of time. Time constraints, family schedules and demands or parents feelings of being overwhelmed may have an impact on parent participation. Parent's attachment behaviors may interfere with the ability to establishment of a rapport with service providers, creating a barrier to service delivery.

The three child participants were between the ages of 16 months to 2 and half years of age, thus there were no infant participants, therefore further investigation is this population is needed. Some of the findings may have been influenced by other interventions. Two of the three families were receiving services through the early intervention system. It is difficult to know whether the coaching intervention of the Capstone Project, early intervention or the combination had in impact on the research outcomes.

The secret ingredient to infant child mental health: Teaching parents to play

Parents did not initially reveal all areas of concerns upon initial intake. More concerns for the child's development were revealed over the course of the sessions together. This may have been affected by improved researcher/parent rapport; parents improved understanding of development or parents were not given proper time to think and explain their answers upon initial intake.

Implications for practice

A need exists for more comprehensive assessment tools to support early identification and treatment of infant child mental health issues. There is a need for screenings for social-emotional skills in the primary care setting, (Briggs et al., 2012, Weitzman, Edmonds, Davagnino, & Briggs-Gowan, 2011), and a better understanding of service delivery models for practitioners (Humphry, 1989; McAtamney, 2011; Nelson & Mann, 2011; Schultz-Krohn & Cara, 2000; Shah, 2010).

Recurring themes throughout the literature and the findings in this Capstone study support a framework that utilizes assessment of the fundamental areas of social emotional development and intervention using a family capacity-building approach with emphasis on the secret ingredient of play. The key areas of assessment include 1) parent attachment behaviors; 2) child social emotional development; and 3) observation of parent child interactions during the co-occupation of play. Intervention focuses on coaching and collaboration through use of a family capacity-building approach within the home setting.

The following is a proposed framework for intervention "The Marini Model of Family Centered Capacity-Building in the Home Setting" consists of four phases from assessment to

outcome evaluation. The first phase in the framework provides the context for services. Services are provided within home using a *family centered, family-capacity building approach*. The Early Childhood Technical Assistance Center (ECTAC) developed a form to help providers implement the family capacity-building approach (Appendix E).

During the assessment phase there needs to be close consideration regarding the mental health and the interplay between the behaviors of the caregiver and the infant (Bolten, 2012; McAtamney, 2011). This includes interrelational disruptions, such as environmental factors, isolation, abuse or exposure to violence, or in intrarelational disruptions, those embedded within the individual by way of interactions of internal sensory or motor systems (Whitcomb,et al., 2015). During this phase the practitioner *assesses parent attachment behaviors, the parent child interactions, and the overall development of the child, including the core competencies of social-emotional development* through interview and observations (Appendix F). Families receiving services from the NJIES, have a document called the Individual Family Service Plan (IFSP) that contains information on these issues. It may be of help to allow parents the opportunity to see the pretest survey prior to completing the information in the form of an email. This may assist in a more thoughtful response from parents revealing more information.

The third phase is *collaboration, coaching and co-occupation.* During this phase collaboration with parents is needed in order to identify any concerns, and plan outcomes for intervention. This fosters the use of a family centered approach. Family capacity-building is utilized being sensitive to parent learning styles. Coaching allows for the opportunity for parents to demonstrate, problem solve and gain confidence. Reflection upon the session is essential. This

gives the parent the opportunity to check their thinking and to allow the practitioner the opportunity to assess the parents level of understanding. This is also the time to help the parent plan times the activity can be practiced through use of an Everyday Activity Checklist (Appendix G).

The use of the co-occupation of play is essential in the model. It is through parent child play interactions that attachment behaviors are reinforced and social-emotional skills supporting infant child mental health occur. Practitioners must be mindful that the focus of therapeutic intervention is with the parent and child dyad. This dyad is best supported through observation and coaching. When practitioners take over play interactions, then the attachment behaviors are between the practitioner and the child. When the practitioner becomes an active participant during the parent child interaction, the dynamics change to a therapeutic triad.

The final stage is the outcome evaluation phase. During this stage the parent and practitioner complete a reassessment. This should include comparison information from the pre/ posttest survey along with narrative responses. Qualitative changes were demonstrated after 4 intervention sessions in this study. The standard practice is that evaluation and intervention planning continue throughout the implementation process to monitor the client's responses to intervention at each session (AOTA, 2014). A formal re assessment may be most prudent after 8-10 sessions. Areas of assessment include parent attachment behaviors, changes in the infant/ child social emotional development skills, and in the area of occupational performance in activities of daily living including communication, play skills and self- regulation.

Occupational therapy practitioners are well trained in to address the needs of ICMH using this model. They may be future opportunities to expand our current services delivery

models to include home intervention services for children over the age of 3 years.

Future research

Further research is needed in this area. Research should be conducted on a larger group sample and within in the infant population in order validate these findings. The use of open-ended questions in addition to structured responses and reflective observation are strategies that can be applied (Nash, 2014) and may provide further information upon initial assessment. The ability to identify specific patterns of attachment between the parent and child may be useful for further research and intervention. Development of a standardized tool for Bowlby's four phases of attachment may assist in future development and understanding of components that form the foundation for attachment behaviors.

Summary

Attachment is inherent in nurturing parent infant interaction and is the underpinning for proper social emotional skills development to improve infant mental health. Extensive research from other professions, support the use of attachment theory to inform interventions (Meredith, 2009). Currently there is little research conducted linking attachment theory and OT practice. The primary goal in occupational therapy to assist clients in 'achieving satisfactory function socially, emotional and psychologically in a natural environment' (Shultz-Krohn & Cara, 1999).

Through the use of an occupational therapy lens, the secret ingredient to improving infant child mental health is through the co-occupation of play that focuses on the core competencies of social emotional skill development. This Capstone study focused on using the core competencies of social emotional development during play using a coaching model, within the home setting. Findings indicated that there were improvements in the child's core competencies of social

emotional development, synonymous with infant child mental health; occupational performance; improved parent-child interactions; along with parent confidence and competence hence reinforcing the family capacity-building model. An improvement in communication was reported by parents, indicating that attachment is reinforced. There is emerging evidence supporting a relationship between attachment and sensory modulation (Schore & Schore, 2008; Whitcomb, et al., 2015). In addition, a framework for intervention has been proposed for the purposes of guiding and enhancing clinical reasoning skills and to develop an assessment tools that can be used by multiple disciplines.

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Appendix A: Sample intervention session

Check In: (first 5 minutes of session):

- Member checking
- assess any issues with prior week's goal implementation
- any new concerns
- what the parent would like to work on

Observation: (15 minutes):

- Observe parent-child interaction during play

Coaching: (15 minutes or as needed):

- Coaching to address parents goals
- To help clients achieve better understanding of reading, responding and reaction during play interaction

Feedback and demonstration: (15 minutes):

- Parent will demonstrate appropriate technique or understanding
- Collaboration to brainstorm opportunities to demonstrate and practice technique

Wrap-up: (10 Minutes):

- Summarize session and review learning outcomes
- Identify outcome for week
- Documentation

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Appendix B: Pretest Survey

1. I am able to tell what my child wants

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

2. When my child is upset I can calm him/her down

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

3. I know what my child wants before they show or tell me

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

4. My child sleeps through the night

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

5. My child is a picky eater

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

6. My child cries often for no reason

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

7. I enjoy my role as a parent

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

8. I feel I have support in my role as a parent

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

9. I enjoy play time with my child

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

10. I understand my child's development

    O Strongly agree O Disagree O Agree O Strongly Disagree

    Comments:

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Appendix C: Posttest survey

1. I have a better understanding my child's development

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

2. I feel I have support I need in my role as a parent

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

3. I enjoy play time with my child

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

4. I feel I am enjoying my role as a parent

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

5. I feel I am better at understanding what my child wants

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

6. I am able to help calm my child when he/ she is upset

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

7. I am able to anticipate what my child needs before he/she becomes upset

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

8. My child sleeps through the night

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

9. My child eats a typical diet for his/her age

   O Strongly agree O Disagree O Agree O Strongly Disagree

   Comments:

10. My child cries often for no reason

    O Strongly agree O Disagree O Agree O Strongly Disagree

    Comments:

11. My child's behavior has improved during this intervention

    O Strongly agree O Disagree O Agree O Strongly Disagree

    Comments:

12. I am happy with the new strategies I have learned through this intervention

    O Strongly agree O Disagree O Agree O Strongly Disagree

    Comments:

13. I feel more connected with my child

O Strongly agree O Disagree O Agree O Strongly Disagree

Comments:

14. This process was difficult for me

O Strongly agree O Disagree O Agree O Strongly Disagree

Comments:

15. I feel more confident in my parenting abilities with my child

O Strongly agree O Disagree O Agree O Strongly Disagree

Comments:

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Appendix D: Parent Intake Form

Contact Information

Parent initials:

Home phone: Cell phone

Email:

Preferred method of contact:

Demographics

Parent's Age**:**

Last grade attending school?

Do you work outside the home? **Yes/No**

What type of employment? **Full time/Part time/ as needed**

Who lives with child?

Childs Initials:

Age:

Does your child have any medical conditions?

Do you have any concerns regarding your child's development?

Who else participates in your child's care?

Do you have any concerns regarding your child's behavior?

Appendix E

DEC Recommended Practices Topic Area: **FAMILY** **FAM-4** *DRAFT FOR FIELD REVIEW (07/21/15)*

Family Capacity-Building Practices Checklist

This checklist includes practices for engaging parents and other family members in using child-level interventions to promote child learning and development in ways that strengthen parenting confidence and competence.

The capacity-building practices are used by a practitioner to promote a parent's understanding and use of everyday activities and routines as sources of child learning opportunities.

The checklist can be used by a practitioner to plan intervention sessions with parents and other family members. The checklist also can be used to do a self-evaluation to determine if practitioner capacity-building practices actively involved parents in providing their children everyday learning opportunities.

Practitioner: _____ Child: _____ Date: _____

Please indicate which of the practice characteristics you were able to use as part of parent and family member involvement in providing child learning opportunities:	**Seldom or Never** (0-25%)	**Some of the Time** (25-50%)	**As Often As I Can** (50-75%)	**Most of the Time** (75-100%)	**Notes**
1. Describe the use and benefits of everyday activities as sources of child learning opportunities	☐	☐	☐	☐	
2. Illustrate or demonstrate child engagement in everyday activities	☐	☐	☐	☐	
3. Describe and illustrate the importance of child interests and preferences in promoting child learning	☐	☐	☐	☐	
4. Use an everyday activity checklist to have a parent select which activities would be easiest for the parent to use	☐	☐	☐	☐	
5. Together with the parent, engage the child in a familiar everyday activity	☐	☐	☐	☐	
6. Provide supportive guidance and suggestions to the parent as necessary	☐	☐	☐	☐	
7. Illustrate or demonstrate how adult responsiveness to child behavior is used to promote child learning in everyday activities	☐	☐	☐	☐	
8. Together with the parent, identify five or six everyday activities that will be used as child learning opportunities	☐	☐	☐	☐	
9. Engage the parent in conversations about which activities will be used for child learning and which parent responses will be used to promote learning	☐	☐	☐	☐	

The DEC Recommended Practices are available at http://www.dec-sped.org/recommendedpractices
Access this checklist and other ECTA Center products at http://www.ectacenter.org

ECTA Center
The Early Childhood Technical Assistance Center

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Appedix F. *Sample of Initial Assessment*

Initial Assememt for ICMH

Parent / Caregiver name:_____ Date:_____
Child's Name:_____ Child's age:_____

Areas of developmental concern:
_____
_____
_____

Family strengths and challenges:
_____
_____
_____

Other services:
_____
_____
_____
_____

Observations of parent attachment behaviors:

1. Parent engagement:
   _____
   _____
   _____
   _____

2. Infant competencies:
   _____
   _____
   _____
   _____

3. Parent awareness and responsiveness:
   _____
   _____
   _____

Impression of overall attachment behaviors:

- Secure: reciprocity, affect , exploration
- Insecure: unpredictable, ambivalent reciprocity

Appendix G *Assessment of SED skills*

Core competency	***Strengths***	***Challenges***
Trust/ security/ safe base		
Emotional expression and regulation		
Learning/exploration/independence		

Appendix H

Pretest survey for use during Assessment phase

Please describe how often the following occurs	Seldom/ Never 0-25%	Some of the time 25-50%	Often 50-75%	Almost all the time 75-100%	Describe
I am able to tell what my child wants					
When my child is upset I can calm him/her down					
I know what my child wants before they show or tell me					
My child sleeps through the night					
My child is a picky eater					
My child cries often for no reason					
I enjoy my role as a parent					
I feel I have support in my role as a parent					
I enjoy play time with my child					
I understand my child's development					
I am concerned about my child's behaviors					
I am confident in my role as a parent					

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Appendix I

Posttest survey for use during the Evaluation phase

Please describe how often the following occurs	Seldom/ Never 0-25%	Some of the time 25-50%	Often 50-75%	Almost all the time 75-100%	Describe
I am able to tell what my child wants					
I have a better understanding my child's development					
When my child is upset I can calm him/her down					
I know what my child wants before they show or tell me					
My child sleeps through the night					
My child is a picky eater					
My child cries often for no reason					
I enjoy my role as a parent					
I feel I have support in my role as a parent					
I enjoy play time with my child					
I understand my child's development					
I am concerned about me child' s behaviors					
I am confident in my role as a parent					

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Appendix J

Everyday Activity Checklist

Select the activities that would be easiest for you to use to incorporate the strategies we use in our therapy sessions:

During meal time I can:

_____
_____
_____
_____

During diaper changes I can:

_____
_____
_____
_____

During bath time I can:

_____
_____
_____
_____

During play time I can:

_____
_____
_____
_____
_____

During dressing I can:

_____
_____
_____
_____

During tooth brushing I can:

_____
_____
_____
_____

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When I am out in the community I can:

_____
_____
_____

During quiet time I can:

_____
_____
_____

During Bedtime I can:

_____
_____
_____
_____

Other times and activities:

_____
_____
_____
_____
_____
_____

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