THE EFFECTS OF REFLECTIVE PRACTICE ON TEACHER
PERCEPTIONS OF WORK RELATED STRESSORS FOR EARLY
CHILDHOOD EDUCATORS

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This thesis is dedicated to my amazing parents, family, friends and boyfriend who have supported me unconditionally through this journey. I love you and I am forever grateful.
ABSTRACT OF THE THESIS

The Effects of Reflective Practice on Teacher Perceptions of Work Related Stressors for Early Childhood Educators
by
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Teaching in an early child care environment is highly stressful with many demands, such as challenging child behaviors, paperwork, and administrative demands. A demanding work environment can be linked to a decrease in job satisfaction and consequently teacher turnover. Compared to other teacher settings, teacher turnover rates in early child care centers are greater. The negative impact teacher turnover has on the children they serve, in addition to the overall psychological and physical health of the teachers is why it is imperative for early child care teachers to be supported in gaining skills to increase their sensitivity and coping strategies. This study examines the use of reflective practice for early childhood educators and whether it leads to a positive effect on teacher perceptions of work related stressors. The participants were sixteen lead teachers from the three of the center’s site locations. Quantitative data were used to gain an understanding of teacher perceptions of work related resources and demands, psychological coping strategies, and their ability to self-regulate and use insight. Qualitative data were collected from journals that provided insight in to teacher’s reflections on each one of the eight collaborative group sessions. From the triangulation of the data many stress-related themes were discovered which include, lack of administrative support, unmanageable workload, and challenging child behaviors. The findings from this study indicate that reflective practice may have a positive impact on teachers’ perceptions of stress. A replication of the study with an increase in the length of the treatment as well as an increase in the sample size would allow for greater generalizability. The findings also suggest that these early childhood educators are experiencing unmanageable amounts of stress which has been linked to teacher turnover.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT ................................................................. v</td>
</tr>
<tr>
<td>LIST OF TABLES .......................................................... viii</td>
</tr>
<tr>
<td>LIST OF FIGURES ......................................................... ix</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS ..................................................... x</td>
</tr>
</tbody>
</table>

## CHAPTER

1 INTRODUCTION AND BACKGROUND ........................................ 1
   - Statement of the Problem ........................................ 4
   - Purpose of the Study ........................................... 5
     - Research Questions .......................................... 6
     - Hypotheses .................................................. 6
   - Limitations of the Study ....................................... 6
   - Definition of Terms ........................................... 7

2 REVIEW OF LITERATURE ................................................ 8
   - The Transactional Model of Stress and Coping .................. 8
   - Attachment Theory ........................................... 9
   - Self-Efficacy Theory ......................................... 11
   - Impact on Teachers .......................................... 12
   - Impact on Children ......................................... 14
     - Attachments ............................................... 14
     - Positive Teacher-Child Relationships .................... 16
   - Coping Resources ........................................... 17
   - Increase Self-Efficacy ........................................ 18
   - Reflective Practice .......................................... 19

3 METHODOLOGY ........................................................... 22
   - Design of the Investigation .................................. 22
   - Participants .................................................. 23
     - Centers .................................................. 23
LIST OF TABLES

Table 1. Center Characteristics ................................................................................................24
Table 2. Teacher Characteristics: Years of Experience, Years at Current Center, Children in the Classroom and Children with Behavior Problems (n=16) ..............26
Table 3. Pre-Test and Post-Test ANCOVA for the CARD (n=16) .....................................................33
Table 4. CARD Stress Group (n=8) ................................................................................................35
Table 5. CARD Subscales for Infant/Toddler Teacher Journals across Sessions ..................36
Table 6. CARD Scales, Subscales and Descriptions .................................................................37
Table 7. CARD Subscales for Preschool Teacher Journals across Sessions .........................39
Table 8. Pre-Test and Post-Test ANCOVA for the PRI (n=16) ......................................................43
Table 9. PRI Scales and Descriptions .......................................................................................44
Table 10. PRI Scales for Infant/Toddler Teachers Journals across Sessions...........................45
Table 11. PRI Scales for Preschool Teachers Journals across Sessions ..................................46
Table 12. Pre-Test and Post-Test ANCOVA for the SRIS (N=16) ..............................................50
Table 13. SRIS: Insight Scale (n=8) ...........................................................................................50
Table 14. SRIS Scales and Descriptions ....................................................................................51
Table 15. SRIS Scales for Infant/Toddler Teachers Journals across Sessions ......................51
Table 16. SRIS Scales for Preschool Teacher Journals across Sessions .................................52
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-test and post-test scores for overall stress</td>
<td>34</td>
</tr>
<tr>
<td>2</td>
<td>CARD subscales comparing infant/toddler teachers to preschool teachers</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>Pre-test and post-test for the scanning measure</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>PRI scales comparing infant/toddler teachers to preschool teachers</td>
<td>48</td>
</tr>
<tr>
<td>5</td>
<td>SRIS scales comparing infant/toddler teachers and preschool teachers</td>
<td>53</td>
</tr>
<tr>
<td>6</td>
<td>Group 1: Infant/toddler teachers</td>
<td>55</td>
</tr>
<tr>
<td>7</td>
<td>Group 2: Preschool teachers</td>
<td>56</td>
</tr>
</tbody>
</table>
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CHAPTER 1

INTRODUCTION AND BACKGROUND

Work related stress can have a substantial impact on one’s health and well-being in any occupation (McGrath & Huntington, 2007; Zhai, Raver, & Li-Grining, 2011). It is to be expected to have a slight amount of stress in the work place, and education has been identified as a profession where teachers are highly exposed to symptoms of stress and strain (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Dick & Wagner, 2001; Kelly & Berthelsen, 1995; O’Donnell, Lambert, & McCarthy, 2008; Zhai et al., 2011). Typically research on work related stress has been dominant in the areas of K-12 education (Byrne, 1991; Kelly & Berthelsen, 1995; Zhai et al., 2011), while in the area of early child care there is a notable gap in research (Curbow, Spratt, Ungaretti, McDonnell, & Breckler, 2000; Kelly & Berthelsen, 1995; Zhai et al., 2011). Stress has been defined as the imbalance between work related demands and resources, where teachers perceptions of their abilities to cope with the demands influence whether or not there will be experiences of “unpleasant, negative emotions” (Kelly & Berthelsen, 1995; Kyriacou, 2001). Furthermore, it is more likely that teacher-child relationships and interactions will be less sensitive for teachers who are experiencing these negative emotions (Curbow et al., 2000; Whitebook & Sakai, 2003; Zhai et al., 2011). First we will examine the impact work related stress can have on the overall well being of teachers, then we will take a closer look on the impact these negative outcomes can potentially have on the children in their care.

In terms of the transactional model of stress and coping, which provides a theoretical framework for this study, a transaction occurs when external stressors are presented, and an appraisal is made so that if the result stands that demands are greater than the resources then stressful symptoms are quick to follow (Lazarus & Folkman, 1984; McCarthy, Lambert, O’Donnell, & Melendres, 2009; O’Donnell et al., 2008). Lazarus & Folkman (1987) describe the root of this model to be two cognitive appraisals that occur consecutively. These are primary and secondary appraisals; (a) primary appraisal occurs when teachers evaluate the presented demands and the potential threat that may ensue, (b) secondary appraisal occur
when teachers evaluate their abilities to cope with the potential stressors (Lazarus & Folkman, 1987; O’Donnell et al., 2008). If appraised that coping abilities are challenged and the demands are a threat then teachers are more likely to experience symptoms of stress and burnout (Lazarus & Folkman, 1987; McCarthy et al., 2009; O’Donnell et al., 2008).

Symptoms of stress have a substantial impact on teachers and prolonged negative symptoms can result in burnout and turnover. Prior research has identified burnout as a chronic response to stressors when an imbalance of demands and resources is experienced (Chang, 2009; Maslach 2003; Maslach & Leiter, 2008). Burnout has been characterized as three dimensions of psychological symptoms; emotional exhaustion, depersonalization and sense of inefficacy (Demerouti et al., 2001; Maslach, 2003). Demerouti et al. (2001) referred to emotional exhaustion as “feelings of being overextended and exhausted by the emotional demands of one’s work” (p. 499). The dimension of depersonalization can also be referred to as cynicism and this describes the occurrence of teachers separating themselves from their work, and people they work with, while displaying a negative attitude toward them (Chang, 2009; Maslach & Leiter, 2008). The last dimension of inefficacy reflects to Bandura’s (1997) theory of self-efficacy which refers to the beliefs in one’s individual abilities to overcome the challenges. Research shows that each of these dimensions manifests at different times causing variations of stress, or simultaneously and together these dimensions negatively affect teachers in many ways and can ultimately lead to teacher turnover (Chang, 2009; Guo, Justice, Sawyer & Tompkins, 2011; Maslach & Leiter, 2008). Statistics show that in early child care programs it is estimated that the teacher turnover rate is between 15 to 30 percent each year (Bloom, 1996; Whitebook & Sakai, 2003). In the National Child Care Staffing Study (Whitebook, Howes, & Philips, 1998) the annual job turnover rate in child care was as high as 31%, compared to the reported 8.6% for elementary school teachers (Ingersol & Rossi, 1995; Zhai et al., 2011). Research has established that teachers who are experiencing negative symptoms of stress are more likely to disengage with the children they work with to focus on personal problems (Curbow et al., 2000; Zhai et al., 2011).

Measures of stress typically involve research conducted through self-report questionnaires that determine levels of stress, or inventory reports of what influences stress (Kyriacou, 2001). This research has reported that job stressors teachers face include day-to-day demands such as the physical workload, time pressures, challenging child behaviors,
and overall shift work (Demerouti et al., 2001). Other general stressors include variables such as teaching experience, poor working conditions, self-esteem, and long hours with little pay (Kelly & Berthelsen, 1995; Kyriacou, 2001; Zhai et al., 2011). When it comes to material resources provided, teachers experience challenges with limited training, limited materials, and often limited administrative support (Curbow et al., 2000; Demerouti et al., 2001; Lazarus & Folkman, 1987). Even though it is essential to gain an understanding of the causes of stress and burnout, there is a missing piece in the literature on action interventions to support teachers in learning how to manage and cope with stress (Kelly & Berthelsen, 1995; Kyriacou, 2001; Maslach, 2003). First let us explore the importance of positive teacher-child relationships and the negative impact that stressed and burned out teachers can have on the children in their care.

The first five years of life are a critical time period for developing relationships. Children learn and develop their social emotional world through the context of their relationships with primary and secondary caregivers. Attachment theory research provides an understanding about the bonds that are formed between young children and adults, and how these relationships influence children to learn about the world around them (Bowlby, 1958; Zajac & Kobak, 2006). According to First 5 of California, approximately 62% of children under the age of five are spending at least part of their day with a caregiver. The California Child Care Resource & Referral Network reported in the 2011 California Child Care Portfolio parent requests for full time child care for children ages birth to five was 86%. This means that 86% of families would have their children in child care for 30 hours a week or more (Resource and Referral Network, 2011). With the high percentage of children out of the home and in child care, sensitive and responsive caregiving is critical. Research has found that secure teacher-child relationships, or secondary attachments, that reflect warmth, sensitivity and responsiveness are critical in promoting social emotional development (Bowlby, 1958; Driscoll, Wang, Mashburn, & Pianta, 2011; Howes, Phillips, & Whitebook, 1992; Virmani & Ontai, 2010). Unfortunately teachers who are experiencing stress and burnout are more likely to disengage and depersonalize others; in addition, suffering from emotional exhaustion can impact their effectiveness as teachers and secondary attachment figures (Chang, 2009; Dick & Wagner, 2001; Kelly & Berthelsen, 1995; Zhai et al., 2011).
Given the theoretical frameworks of transactions of stress and coping, attachment, and self-efficacy, as described above, early child care teachers are experiencing high levels of stress due to the misfit of demands and resources combined with the inability to cope with the presented challenges. Teachers’ overall health and well-being in addition to teacher-child relationships are being negatively affected. Research has shown that interventions designed to decrease these negative outcomes have been limited, this current study attempts to add to the research by utilizing reflective practice as such a technique.

Gün (2010) reported that when teachers are a part of cooperative, collaborative groups and given the opportunity to discuss challenges at work, they are better able to mutually identify problems and determine the appropriate next steps. Kyriacou (2001) proposed that future research on what schools can do to reduce teacher stress should focus on opportunities for social support that allows for teachers to share concerns with each other and focus on collaborating on solutions. One style of support that has been used in clinical settings, with the primary purpose of improving providers’ quality of service, is reflective practice or supervision (Heffron & Murch, 2010). Over the years the amount of attention that reflective practice has received has increased and now it is being used more frequently in the childcare field (Virmani & Ontai, 2010). Shahmoon-Shanok (2009) stated that “reflective supervision (RS) is a collaborative relationship for professional growth that improves program quality and strengthens practice. RS builds the capacity of individuals, relationships, and organizations by cherishing strengths and partnering around vulnerabilities” (p. 7). For this study, reflective practice was implemented to determine whether there is a positive effect on teacher perceptions of stress, by fostering the necessary skills to appraise demands with confidence in abilities to cope and increase sensitive and responsive caregiving (Emde, 2009; Virmani & Ontai, 2010).

**STATEMENT OF THE PROBLEM**

Teaching has been widely characterized as a stressful occupation (Chang, 2009; Dick & Wagner, 2001; Kelly & Berthelsen, 1995). It is estimated that teacher turnover rates are 15-30% each year which places early childhood turnover the highest in the nation (Whitebook & Sakai, 2003). Factors that have contributed to the high turn-over rate include work related demands and lack of resources (Demerouti et al., 2001; Lambert, McCarthy,
O'Donnell, & Wang, 2009). This in turn can lead to emotional exhaustion and disengagement, and impact self-efficacy which can then lead to burnout and teacher turnover (Demerouti et al., 2001; Maslach & Leiter, 2008). Consequently, burnout and turnover have a major impact on the children they serve, in addition to the teachers. Early relationships influence a young child’s brain development, emotional competency, and attachment to primary and secondary caregivers. The qualities of these relationships also teach children how to understand and navigate the world around them and it is because of these reasons early childhood teachers need to be supported in learning the necessary skills to increase their caregiver sensitivity and insightfulness that comes with reflective practice (Heffron & Murch, 2010; Virmani & Ontai, 2010). Additionally, most studies have simply measured the levels of stress teachers experience though self-report questionnaires and not focused on possible interventions to increase self-efficacy and confidence to decrease perceptions of stress (Kyriacou, 2001; Maslach, 2003; Virmani & Ontai, 2010).

**PURPOSE OF THE STUDY**

The purpose of this study was to examine reflective practice as a supportive system for early childhood educators. In order to provide them with insight on their thoughts, feelings and experiences with their supervisors, co-workers, and the children and families they serve. In turn these tools would potentially provide teachers with skills to manage and cope with presented stressors by building self-efficacy and understanding of their thoughts, feelings, and emotions in order to decrease their feelings of stress and increase positive teacher-child interactions. A study by Chang (2009) focused on the cause of teacher perceptions of work related stressors and found that teachers need to adopt preventive coping strategies and practice them in challenging situations. According to Kyriacou (2001), future research should be focused on direct action techniques as coping strategies for teacher stress. The need for techniques that involve teachers first gaining an understanding for the source of their stress (reflection) and then figuring out what next steps can be taken to successfully deal with the demands in future situations (Kyriacou, 2001). Reflective practice is such a technique.

The overall goal of this study was to determine whether reflective practice has a positive effect on teachers’ work related stressors as measured by their perceptions of
demands and resources at the workplace. In the classroom environment teachers are faced with high demands and limited resources available to meet those demands (Lambert et al., 2009), and without preventive coping strategies teachers become burnt out and job satisfaction are negatively affected which in turn can lead to a decrease in quality child care and teacher-child relationships (Chang, 2009; Fenech, Sweller, & Harrison, 2010; Zhai et al., 2011). The following research questions will guide this study.

**Research Questions**

1. Will there be a positive effect on teachers’ perceptions of work related resources and demands after participating in the reflective practice groups?
2. Will teachers express that they are feeling a decrease in their stress levels at work after participating in the reflective practice groups?
3. Will there be a positive effect on teachers’ perceptions of preventive coping resources for managing work related stress after participating in reflective practice groups?
4. Will teachers express that they are feeling more confident in their preventive abilities to cope with work related stressors after participating in reflective practice groups?
5. Will there be a positive effect on teacher abilities to self-reflect and use insight after participating in reflective practice groups?
6. Will teachers express that they are feeling more confident in their ability to self-reflect and use insight after participating in reflective practice groups?

**Hypotheses**

1. The participation in the reflective practice groups will have a positive effect on teacher perceptions of work related resources and demands
2. The participation in the reflective practice groups will have a positive effect on teacher perceptions of their preventive coping resources for dealing with work related stressors
3. The participation in the reflective practice groups will have a positive effect on teacher abilities to self-reflect and use insight.

**Limitations of the Study**

Two limitations to the study allow for improvement in future research. First, this study focused on the data analysis of one center based early childcare agency’s determination to improve the quality of their center, thus a small sample size of sixteen teachers participated. Consequently, generalizations may not be appropriate due to the small sample size. The power to detect any statistically significant changes in teacher perceptions is also
limited due to the small sample size. Despite the potential limits of statistical significance and generalizability of the study it will constitute as a pilot study and the results will help guide future research with a larger sample size.

The limited number of reflective practice sessions contributes to the second limitation of the study. Only eight sessions across a four month period were provided to the teachers. Previous research indicates that there is a need for research to include longitudinal studies on interventions for preventing or alleviating teacher perceptions of stress (Chang, 2009). The replication of this study over a longer period of time could be a longitudinal research study.

**DEFINITION OF TERMS**

*Reflective Practice or Reflective Supervision*: A collaborative process between supervisor and supervisee(s) which focuses on strengths while highlighting challenges to encourage professional growth and development (Shahmoon-Shanok, 1991). The groups include regular meetings, respectful collaboration between members, and reflection to consider multiple perspectives including one’s own (Fenichel, 1992).
CHAPTER 2

REVIEW OF LITERATURE

The following theories, transactional theory and model of stress and coping, attachment theory, and self-efficacy theory describe the framework for the study, in addition to the organization of the review of literature are presented.

THE TRANSACTIONAL MODEL OF STRESS AND COPING

Transactions occur every day, between people and environments. The transactional theory provides an understanding of the intricacies of these relationships (Sameroff, 2009). Past research has focused on examining traits and values of a person and environmental influences as separate systems, but the transactional theory examines the “dynamic interplay of variables” between the two (Lazarus & Folkman, 1987; Sameroff, 2009). For example, Lazarus and Folkman (1987) describe that threat is not solely experienced by the person or the environment; it is the influence of both that gives it meaning (Lazarus & Folkman, 1987). This study will examine the transactional theory of stress and coping (Lazarus & Folkman, 1987) with emphasis on understanding the interplay of classroom demands and resources to determine if stress will be experienced (Lambert et al., 2009).

The transactional theory of stress and coping provides a more specific lens into what occurs cognitively and emotionally for a person when they encounter stressful situations while taking in to consideration the dynamic relationship between person and environment, demands and resources (Lambert et al., 2009; Lazarus & Folkman, 1987; Spilt, Kooman, Thijs, & van der Leij, 2012). The external stressors experienced are appraised and weighed with perceptions of one’s ability to cope (McCarthy et al., 2009). Lazarus and Folkman (1987) describe the process as primary and secondary appraisals; (a) primary appraisal occurs when the person determines if the situation that is encountered is a potential threat, (b) secondary appraisal refers to the evaluation of what is occurring and determining if one’s abilities to coping can overcome the potential stressor (Lazarus & Folkman, 1987; O’Donnell et al., 2008; Spilt et al., 2012). A person’s ability to cope with stressful situations relies
heavily on secondary appraisal that is if they can do anything to change the situation that is causing them to stress (Lazarus & Folkman, 1987). When an individual approaches situations with the ability to maintain perspective by facing challenges and overcoming them, then they are more likely to use effective coping strategies instead of viewing a situation as harmful or threatening (Lazarus & Folkman, 1987).

For this study, not only do transactions between people and environments affect teachers and their overall well being, transactions between children and the environment are also considered. Children are influenced by the constant dynamic interactions and social influences of their environment as well as teachers, and children learn and develop through early relational experiences (Sameroff, 2009). Young children are influenced by others to learn how to self-regulate and to develop socially, emotionally and cognitively (Sameroff, 2009). Sameroff (2009) describes that children who have supportive experiences are more likely to develop into secure human beings who will be more likely to overcome obstacles in their lives. Therefore, teachers play a big role as temporary attachment figures to have positive teacher-child relationships that are sensitive and responsive in the classroom. Moreover, when a negative transaction occurs where teachers appraise that demands out weigh their potential coping abilities this can cause negative feelings of stress that can in turn affect the quality relationships with the children in their care (Lambert et al., 2009; Zhai et al., 2011). Quality teacher-child relationships can be better described through attachment theory.

**ATTACHMENT THEORY**

Children form the most important attachment bonds with primary and temporary caregivers within the first five years of life, and throughout life attachments continue to form with others (Cyr & Van IJsendoorn, 2007). Attachment theory describes these bonds as an inborn drive to attach to a caregiver when stressful situations are experienced (Bowlby, 1958; Cyr & Van IJzendoorn, 2007; Zajac & Kobak, 2006). This theoretical framework also indicates that early relationships are the foundation for learning both cognitively and socially (Bowlby, 1958; Johnson et al., 2010). A principle concept of attachment theory is the internal working model, which is developed outside of conscious awareness (Bowlby, 1958) and is organized by the details and experiences of others, the self, and more importantly the
associations of the two (Bretherton, 1985; Pietromonaco & Barrett, 2000). According to Bowlby (1958) children develop the internal working model based off of the attachment styles they form with their caregivers. Johnson et al. (2010) explain that “internal working models were thought to influence the child’s subsequent processing of social experiences and allow the child to anticipate, plan for, and adapt to his or her social world” (p. 808). Through the development of these internal working models children form types of secure and insecure attachments with primary and temporary caregivers.

Secure attachments have been found to form when caregivers are sensitive and responsive to their needs (Zajac & Kobak, 2006). During the first years of life the quality of attachments are most important influences on the interworking model that is developing (Cyr & Van IJzendoorn, 2007). A sense of trust is formed with their caregiver and this is the most optimal relationship to form (Howes & Ritchie, 1999). Quality of care from in the home to child care is critical to a child’s ability to cope and adapt to presented challenges (Zajac & Kobak, 2006). Empirical evidence supports that securely attached individuals are more likely to have positive views of the world around them and the people they encounter throughout their life (Cyr & Van IJzendoorn, 2007). Bowlby (1958) describes that a child’s attachment styles with their primary or temporary caregivers are most obvious during stressful situations. Children with secure relationships feel comfortable relying on their adult figure for support and comfort. In turn as children get older secure attachments have a positive influence on their abilities to cope when experiencing stress (Cyr & Van IJzendoorn, 2007; Zajac & Kobak, 2006). Consequently, insecure attachments can have negative effects on children at young ages which can influence them throughout their lives in to adulthood.

Insecure attachments can form if a child feels mistrust and that their needs are not being met by their parent or caregiver. Cyr & Van IJzendoorn (2007) note that children with insecure attachment styles with their caregivers do not react to stress when it presents itself, even though they may be experiencing physiological responses, they do not turn to the caregiver for support or comfort, nor do they express feelings of distress. The importance of quality relationships is evident in the understanding of attachment theory. Quality care should be looked at closely in the child care environment due to the fact that there are increasing numbers of children who spend 30 or more hours away from their families (Resource and Referral Network, 2011). This study focuses on the need to improve quality
child care by building sensitive and reflective caregivers through the use of reflective practice. Prior to understanding the benefits of reflective practice let us examine the necessity to build skills of confidence and positive self-efficacy in our caregivers.

**SELF-EFFICACY THEORY**

Another theoretical framework of this study is the self-efficacy theory. This theory describes teacher beliefs in their confidence, abilities to cope and control challenges presented in the work place (Guo et al., 2011; Hammarberg & Hagekull, 2000). Research from Guo et al. (2011) describes that there are three factors that have been associated with the influence of teacher self-efficacy; (a) individual teacher characteristics such as education levels, teachers who have more education have been found to have higher levels of self-efficacy, (b) collaboration with other teachers, research has found that teachers involved in organized collaboration are more efficacious, (c) child engagement, teachers are more likely to report higher levels of self-efficacy when their students are thoroughly engaged in classroom activities. In a study by Hammarberg and Hagekull (2000), in which preschool teachers’ perceptions of control were examined, it was derived that teachers who are more confident and who have perceptions of control in the work place feel more satisfied with their job.

Research has shown that teachers with higher self-efficacy have better teaching skills, they are able to manage challenging situations easier, and they are more motivated to teach (Carleton, Fitch, & Krockover, 2008; Heller et al., 2011). Teachers with higher levels of self-efficacy typically have students with stronger goals and direction for themselves (Heller et al., 2011; Rose & Medway, 1981), and higher academic achievement (Ross, 1988). In addition students can have higher levels of self-esteem and more positive attitudes toward others and learning (Heller et al., 2011; Miskel, McDonald, & Bloom, 1983). This study examines reflective practice as a tool for increasing self-efficacy and preventive psychological coping abilities in order to decrease the impact of stress on teachers and ultimately decrease the negative impact consequences of teacher stress can have on the children they serve.
IMPACT ON TEACHERS

Stress has been the focus of many studies in the educational field. It has shown to negatively impact the overall health and well-being of teachers, in addition to the recruitment and retention of good teachers (Gold et al., 2010; McGrath & Huntington, 2007; Zhai et al., 2011). For this study, teacher perceptions of stress were examined by looking at the relationship of classroom demands with resources available to manage the demands through the lens of the transactional model of stress and coping. In the work environment teachers face high demands and limited resources available to meet those demands (Lambert et al., 2009). Consequently, when work related demands out weigh the perceived resources available to teachers; they are more likely to experience negative symptoms of stress and/or burnout (Chang, 2009; Demerouti et al., 2001; Lambert et al., 2009).

Job demands have been inventoried and appraised in a number of studies. Demerouti et al. (2001) examined the transaction of job demands and resources and the outcome of burnout. They looked at job demands of time pressures, physical workload, environment and shift work and associated these with feelings of exhaustion. In the same study feedback, administrative support, job control and rewards were considered resources that contribute to disengagement when they are limited. The results of the study determined that, exhaustion and disengagement are correlated and causally related to the working conditions (Demerouti et al., 2001). A second study by Kokkinos (2007) which looked at the associations of job stressors, personality and burnout, determined that managing student misbehavior and time constraints were two items that systematically predicted dimensions of burnout. Associations were also made that personality and job stressors were related to dimensions of burnout. Other studies have found that time pressures, non-instructional demands, challenging child behaviors, challenges with parents, and lack of instructional resources were major themes that produced feelings of stress (Kelly & Berthelsen, 1995; Lambert et al., 2009). Teachers who feel that they do not have the resources to meet these demands experience the negative consequences.

In order to meet the perceived work related demands teachers must feel that they have the adequate resources available to them. Some job resources that have been found to be critical for teachers to overcome demands are administrative support, learning materials, feedback and support, and specialized resources (Demerouti et al., 2001; Lambert et al.,
If these resources are limited teachers may feel that the demands are greater and stressful symptoms have been found to follow (Lambert et al., 2009). Lambert et al. (2009) measured elementary teacher stress and coping in the classroom and determined that the relationship of perceived demands and resources were found to be valid in determining teacher’s overall well-being, health, efficacy, attitudes and teacher burnout. While it is to be expected to have a slight amount of stress in the workplace, research shows that an over exposure to stress can lead to job dissatisfaction, lack of commitment to the organization, depersonalization, and emotional exhaustion (Maslach & Leiter, 2008; O’Donnell et al., 2008). These symptoms have been directly associated with burnout (Maslach, 2003; Maslach & Leiter, 2008).

The term “burnout” began to be used frequently in the 1970s and was used to understand the feelings and experiences of people in any workplace (Maslach, Schaufeli, & Leiter, 2001).

Burnout has been widely studied in the field of human services and teaching (Kokkinos, 2007, Demerouti et al., 2001). Burnout can be described as three dimensions that a person may experience in a combination which can cause burnout to occur. The first dimension is emotional exhaustion which involves feelings of being “overextended and exhausted” by the emotional demands of work (Demerouti et al., 2001). Cropanzano, Rupp, and Byrne (2003) describe emotional exhaustion as a symptom of burnout in which case it is “a chronic state of emotional and physical depletion.” Emotional exhaustion has been found to occur when the demands of work have a negative effect on an individual and the exchange of benefits is not mutually supportive (Demerouti et al., 2001). Occupations that involve human service have been found to have more emotional exhausting demands that affect their responsiveness to those they serve (Maslach et al., 2001). As Chang (2009) describes, emotional exhaustion is a psychological response to stress and yet it does not describe behaviors that might occur when burnout is experienced as the second dimension, depersonalization does.

The second dimension of burnout, depersonalization, can be described as a behavioral response that might occur in response to burnout. Maslach et al. (2001) describes it as an “interpersonal context dimension”, in which teachers tend to separate themselves from their work and the people they work with such as co-teachers, even children and parents. This
dimension has also been discussed as cynicism which refers to the feelings that correspond with detaching from the job (Chang, 2009; Maslach et al., 2001). Some teachers may simply feel negatively toward their work place and even the people they work with which can directly interfere with their effectiveness as teachers (Chang, 2009).

Self-efficacy or feelings of personal accomplishment can be negatively affected if teachers are experiencing exhaustion and depersonalization. This is the third dimension to burnout. Bandura (1997) states that self-efficacy refers to an individual’s belief in their abilities to cope and have control over presented demands. Teachers experiencing exhaustion and depersonalization are going to find it harder to feel a sense of accomplishment (Chang, 2009). Consequently, teachers who have low levels of self-efficacy have a lower perceived control of their environment and lack confidence in their abilities to teach (Chang, 2009; Maslach et al., 2001). Together these three dimensions have been adopted to predict teacher burnout.

The impact that stress and burnout can have on teachers is threatening to their overall well-being both psychologically and physically (Gold et al., 2010) and it can also affect the children they care for by jeopardizing the quality of child care. As stated earlier, studies on burnout have associated it with the three dimensions of emotional exhaustion, depersonalization, and inefficacy (Chang, 2009; Maslach & Leiter, 2008).

**IMPACT ON CHILDREN**

In addition, to the negative consequences directly associated with burnout, teachers are more likely to be less sensitive and less engaged with the children in their care because they are more focused on their personal problems (Whitebook & Sakai, 2003; Zhai et al., 2011). Therefore, it is important to understand the impact that these consequences can have on the children in their care.

**Attachments**

The consequences that work related stress can have on teachers can potentially have negative effects on the children in their care in many ways. As stated earlier, approximately 62% of children under the age of five are spending at least part of their day with a caregiver who is not their parent and in 2011 it was reported that 86% of requests for child care were
for full time care (First 5 California, n.d.; Resource and Referral Network, 2011). Children who are in full time care are spending 30 or more hours a week in child care (Resource and Referral Network, 2011). Temporary caregivers such as teachers can then function as attachment figures. Due to the high number of hours children are spending in child care secure and insecure attachments can be formed with them (Howes, Galinsky, & Kontos, 1998; Pietromonaco & Barrett, 2000). Therefore it is important that positive attachments are formed. Attachment theory describes that children learn through their early relationships and those experiences will stay with them for the rest of their lives (Bowlby, 1958; Howes & Ritchie, 1999). If a child feels that their needs are being met then when distressed they are more likely to seek comfort with an attachment figure (Howes & Ritchie, 1999). Where as those young children that do not feel their needs are met are more likely to not actively seek comfort and yet may be experiencing physiological symptoms of stress (Howes & Ritchie, 1999). The second scenario can be a sign of an insecure attachment that impacts the internal working model of the child. Furthermore, the learned expectations directly influence the way children view others, themselves and the world around them. Research also shows that internal working models eventually become somewhat stable from childhood to adulthood while there is a constant growth in the complexity as children get older (Bowlby, 1958; Pietromonaco & Barrett, 2000). With that said, it is critical for children to form secure attachments with the adult figures during the early years of life when these internal working models are being formed. Secure and positive attachments relationships influence healthy development that which provides children with capabilities to become successful in life (Howes et al., 1998; Pietromonaco & Barrett, 2000).

Secure attachments with temporary caregivers are least likely to form if the caregiver is detached or depersonalized from the children they work with due to stress and burnout from the demands of their job. Teaching has been identified as a highly stressful occupation with past reports of the average turnover rate for child care teachers more than doubled the turnover rate of elementary school teachers (Ingersol & Rossi, 1995; Whitebook et al., 1998; Zhai et al., 2011). Higher levels of stress indicate that teachers are more likely to subject themselves to negative interactions with children in their care due to the focus on their personal problems (Curbow et al., 2000; Zhai et al., 2011). As stated before, young children are exploring the world around them and learning how to cope and manage when they are
distressed (Zajac & Kobak, 2006). They are also spending time away from their primary caregivers and in the care of temporary caregivers. If temporary caregivers are experiencing stress then again, they are more likely to have negative consequences for the children in their care (Zhai et al., 2011). For that reason positive teacher-child relationships are crucial for young children and their overall development.

**Positive Teacher-Child Relationships**

Peer relationships are not the only relationships that take place in the classroom. Teachers play a large role in a child’s life and the teacher-child relationship, especially within the first five years of life where they are developing their internal working model, cognitive and emotional development. A study by Lambert et al. (2009) suggests that as a result of teachers feeling stressed and overwhelmed there may be a direct impact on the positive classroom environment and the encouragement of positive social development. Lambert et al. (2009) continues to state that teachers are more likely to view children as inanimate objects when they are experiencing emotional exhaustion. Attachment theory provides the framework to what teacher-child relationships look like, whether secure, insecure, avoidant or ambivalent. As stated earlier secure teacher-child relationships allow for trust, coping when distressed, and a positive internal working model (Bowlby, 1987; Howes & Ritchie, 1999; Zajac & Kobak, 2006). Secure teacher-child relationships in kindergarten have been linked to low behavior problems in the first grade (Pianta & Stuhlman, 2004). In addition, Pianta and Stuhlman (2004) describes that the amount of teacher closeness and conflict are indicators of quality teacher-child relationships. Research has shown that the closeness of teacher-child relationships can promote positive child outcomes whereas conflicted teacher-child relationships can illicit negative child outcomes (Birch & Ladd, 1998). Findings also suggest that teacher-child relationships have a direct impact on children learning the skills to be successful in school (Pianta & Stuhlman, 2004). More specifically slight correlations between closeness and conflict with social and academic skills have also been associated with teacher-child quality relationships (Pianta & Stuhlman, 2004).

High quality teacher-child relationships are critical for supporting children to being competent and successful in school. Ghazvini & Mullis’ (2002) study on center-based care
for young children, examined the predictors of quality. They found outcomes that teachers who are warm and sensitive without signs of detachment or punitive treatment, indicate quality relationships and quality child care. The higher the quality of early child care the more positive an impact it has on children’s development both long term and short term (Fenech et al., 2010). Howes et al. (1998) describe how previous research has found that caregivers with more positive and sensitive interactions with the children in their care are more likely to promote secure attachments. Therefore warm, sensitive and responsive caregivers have a major influence on positive teacher-child relationships on quality child care. As these studies describe, teachers who are more sensitive are more likely to have secure attachments and positive teacher-child relationships (Goossens & Van IJzendoorn, 1990; Howes et al., 1998). Studies on consequences of stress and burnout indicate that teachers tend to experience negative symptoms which directly impact their teacher-child relationships in a negative way (Chang, 2009; Whitebook & Sakai, 2003; Zhai et al., 2011). Yet research shows that teachers who have high levels of self-efficacy and preventive abilities to cope with situations that can potentially become stressful are more likely to overcome those negative consequences (Lazarus & Folkman, 1987; Virmani & Ontai, 2010; Zhai et al., 2011). This suggests that an intervention to increase self-efficacy, thus giving teachers confidence and understanding of their abilities to cope with challenges, is essential to increasing quality child care.

**Coping Resources**

A majority of research has focused on appraising teacher’s levels of stress through self-report questionnaires or inventories of items that they feel are stressful (Kyriacou, 2001). Research has shown that teachers who are experiencing stress can reciprocate negative consequences on the children they work with. The gap in research lies with discovering ways to decrease stress in the workplace while improving self-efficacy and ultimately quality child care. Studies that focus on measuring teacher stress and burnout suggest that future research should be on interventions for targeting how to support teachers in managing stress (Kelly & Berthelsen, 1995; Kyriacou, 2001; Maslach, 2003; Zhai et al., 2011). Studies that focus on measuring sensitive relationships and self-efficacy also describe a gap in research on
improving those areas that have been found to correlate with quality child care (Howes et al., 1998; Pianta & Stulhman, 2004; Zhang & Sun, 2011).

The few studies that have focused on interventions have discovered influential results to what types of interventions are more successful than others. In a longitudinal study on early predictors of burnout by Maslach and Leiter (2008) it was determined that the identification of problems and challenges early on in the workplace before they become chronic and serious can lead to preventive interventions, additionally, being able to create strategies that are specific for the work environment were also helpful. Identifying challenges early on promotes preventive coping abilities in dealing with potential stressors. A study on stress and strain in teaching found that teachers who used strategies of avoiding or ignoring as coping with challenges experienced higher degrees of burnout compared to teachers who used more advanced coping strategies (Dick & Wagner, 2001). The more adaptive coping strategies of facing challenges resulted in lower degrees of burnout. This study also indicated that teachers who felt supported from their administration were more likely to use adaptive coping strategies versus avoiding or ignoring challenges (Dick & Wagner, 2001). Results from Baloglu’s (2008) study on stress and coping for elementary school teachers determined that they preferred an “emotion-focused” coping strategy. According to the transactional model of stress and coping, consequences of stress can be negative emotional, psychological and behavioral responses (McCarthy, Lambert, & Moller, 2006). Therefore, psychological coping resources are essential to dealing with such challenging responses.

INCREASE SELF-EFFICACY

Teachers who are feeling inefficacy are less likely to believe in their abilities to overcome demands of a given situation (Chang, 2009). And these feelings tend to correlate with feelings of emotional exhaustion and depersonalization which are dimensions of burnout (Chang, 2009; Maslach, 2003). However, teachers who have higher levels of self-efficacy tend to be more confident in their abilities to teach and cope with stress. Furthermore, if teachers are feeling efficacious then they are more likely to have positive effects on child outcomes (Heller et al., 2011). Previously mentioned three factors have been associated with teacher self-efficacy; individual teacher characteristics, collaboration with others, and child engagement (Guo et al., 2011). Teachers who have higher education and
more experience tend to have higher personal accomplishment and can overcome potential demands. Teachers who feel that they have a social network of teachers to support them through collaboration are more efficacious and teachers who have children that are engaged in activities more efficacious as well (Guo et al., 2011). Heller et al. (2011) describes that interventions for increasing teacher self-efficacy could actually have a positive affect on improving teacher behavior and child outcomes in center based care due to the consistent findings that self-efficacy does indeed create these effects (Henson, 2002; Woolfolk & Hoy, 1990). This study focuses on the second factor of self-efficacy, to provide teachers with a social network of teachers to collaborate with on challenges in the work place in order to increase confidence in abilities to cope with demands and to have positive influences on children in their care. Reflective practice provides this type of intervention by encouraging teachers to actively reflect on their work related challenges in a collaborative manner in order to increase their confidence in coping with work related stress.

**Reflective Practice**

Bearing in mind the substantial amount of research which describes that teachers are experiencing high classroom demands and limited resources, thus causing symptoms of stress and burnout, it is fair to say that something needed to be done. Not only do these symptoms impact the overall wellbeing of teachers but also the children in their care. Quality child care can be defined many different ways and for this study it requires positive teacher-child interactions, high levels of self-efficacy, and secure attachments. As stated previously, the gap in research still calls for active intervention strategies (Kyriacou, 2001; Maslach, 2003). Prior research from a study on elementary school teachers’ stress and coping determined that they preferred coping strategies that were emotion focused (Baloglu, 2008). Reflective practice is such a strategy.

The field of mental health began utilizing a process called reflective practice for clinical supervision for mental health workers in the late 1980s and early 1990s (Shahmoon-Shanok, 2009). It is known to be used in the areas of early intervention, infant mental health, child development fields, and other clinical workplaces for the purpose of improving providers’ quality of services (Heffron & Murch, 2010). Reflective practice, or as it is sometimes referred to reflective supervision, is a collaborative process between supervisor
and supervisee(s) which focuses on utilizing teacher’s individual strengths while bringing to the surface the challenges they face in the work place to encourage professional growth and development (Shahmoon-Shanok, 1991). Typically, reflective practice is done in groups or individually. The groups include regular meetings, respectful collaboration between members, and reflection to bring forth an awareness of thoughts and feelings experienced in the workplace (Fenichel, 1992).

Some of the benefits of reflective practice that have been found to occur in the field of mental health include that supervisees gain confidence abilities, they gain a better understanding of children, receive on going support, and learn how to reflect on their own development to provide meaningful services to children (Larrieu & Dickson, 2009). Eventually it was brought to early child care for those who work with infants, toddlers, and families for many of the same reasons as it was used for in the field of mental health including tackling burnout (Shahmoon-Shanok, 2009).

There is a substantial amount of research proving that teachers experience stress in their work place, however there is a limited amount of research that focuses specifically on work related stressors for early childhood teachers (Kelly & Berthelsen, 1995). Also not present in existing literature are interventions designed for decreasing the effects of stress in educators (Lambert et al., 2009; Maslach, 2003) such as longitudinal research that focuses on problem-focused strategies to help them cope with the stressors (Lazarus & Folkman, 1987). One study that did focus on reflective practice for teachers determined that teachers are better able to mutually identify problems and suggest solutions when they are a part of cooperative collaborative groups and given the opportunity to discuss their reflections on their teaching (Gün, 2010). Being mindful and self-reflective has been proven to correlate with the reduction of stress, depression, and anxiety (Gold et al., 2010). Maslach et al. (2001) determined that “educational sessions can enhance the capacity of human service professionals to cope with the demands of their jobs”.

The lack of coping strategies and the ability to regulate emotions has also been shown to have an effect on teacher burnout (Chang, 2009). Dick and Wagner (2001), found that coping strategies served as a mediator between workload and burnout; teachers with more adaptive coping strategies showed a lower degree of burnout than teachers with coping strategies based on ignoring or avoiding problematic situations. Another study that examined
Mindfulness-Based Stress Reduction found that most of the participants experienced a reduction in stress, depression and anxiety as a result of an eight week course in how to be mindful of their feelings and behaviors (Gold et al., 2010). With regular reflective practice, as previous research shows, teachers will learn how to observe and reflect on their thoughts, feelings and behaviors while interacting with others within the group and hopefully applying what is learned to their day to day interactions (Emde, 2009).
CHAPTER 3

METHODOLOGY

DESIGN OF THE INVESTIGATION

This quasi-experimental mixed methods study was designed to examine the effects of reflective practice on teacher perceptions of work related stressors, their preventive coping resources for managing stress, and their abilities to use self-reflection and insight. Qualitative and quantitative data were collected and analyzed concurrently and data were triangulated to gain a deeper understanding of patterns and themes and to verify consistencies among the various data sources. This study essentially consisted of two groups; the treatment group, which participated in the reflective practice groups, and the control group, which only participated, in the completion of the questionnaires at the two different times in the study. Qualitative data were collected in the form of a weekly journal which was completed by the reflective practice group in addition to journals kept by the reflective supervisor. There were three primary hypotheses for this study: (1) The participation in the reflective practice groups will have a positive effect on teacher perceptions of work related resources and demands, (2) the participation in the reflective practice groups will have a positive effect on teacher perceptions of their preventive coping resources for managing work related stressors, and (3) the participation in the reflective practice groups will have a positive effect on teacher abilities to self-reflect and use insight. Moreover, data were analyzed and guided by the following six questions:

1. Will there be a positive effect on teachers’ perceptions of work related resources and demands after participating in the reflective practice groups?

2. Will teachers express that they are feeling a decrease in their stress levels at work after participating in the reflective practice groups?

3. Will there be a positive effect on teachers’ perceptions of preventive coping resources for managing work related stress after participating in reflective practice groups?

4. Will teachers express that they are feeling more confident in their preventive abilities to cope with work related stressors after participating in reflective practice groups?
5. Will there be a positive effect on teacher abilities to self-reflect and use insight after participating in reflective practice groups?

6. Will teachers express that they are feeling more confident in their ability to self-reflect and use insight after participating in reflective practice groups?

**PARTICIPANTS**

Participants of the study consisted of 16 lead teachers from one child development center with three site locations.

**Centers**

The Escondido Community Child Development Center (ECCDC) is a licensed non-profit center based program. It was founded in 1979 by Lorraine H. Boyce and Ruth E. Clothier. Initially there was only one site and over time it has expanded to three site locations. The most recent site opened in November 2010. ECCDC serves over 300 children age 4 months to 5 years. Ratios of teacher to child range from 4:1 for infants and young toddlers, to 6:1 for older toddlers and 10:1 for preschoolers. For this study the lead teachers from all three sites were selected to participate in the study. Eight teachers from the largest site location (site A) were selected to participate in the reflective practice groups while the other two sites comprised the control group of eight teachers (site B and C).

ECCDC has contracted with a state funded program called Preschool For All (PFA) for four years. Recently PFA has been changed to QPI, Quality Preschool Initiative. This program is sponsored by the First 5 of San Diego Program and by San Diego County Office of Education and is specific to serving children age three to five who live within certain zip code boundaries. Children who are enrolled in the program must attend school daily for three hours of structured learning. For the teachers to be a part of the program there are certain standards that must be met. Lead teachers are required to have a Child Development Permit, there is ongoing staff training, classroom environment regulations and structure requirements, as well as additional requirements that must be met throughout the year (www.sdcoe.net). There are six classrooms that are currently involved in the program including the time while this study took place, two at each of the three site locations.

At the end of 2011 ECCDC began collaborating with Maximizing Access to Advance Our Communities (MAAC) Project Head Start. Much like PFA, Head Start teachers must
have a bachelor’s degree in child development or a related field; the teachers who are participating in the program are required to have a BA child development or a related field. They must also follow the Head Start Program Standards in addition to the day-to-day State requirements. These requirements include weekly lesson plans, weekly child observation notes, and other administrative tasks. Some of the additional requirements which come with Head Start include conducting two home visits a year and organizing one on site conference a year, documentation of contacts with parents and services, and additional federally required paperwork. Furthermore, the teachers are required to meet the ECCDC state requirements which include: completing weekly lesson plans with the implementation of the Creative Curriculum, which is a research based early childhood curriculum, they must document incident reports when children get hurt or sick, they must complete observations and keep portfolios on each child, and carry out other various day to day requirements.

The largest site (site A), where the reflective groups took place, serves children from four months to five years of age. The site consists of one infant classroom, three younger toddler classrooms, two older toddler classrooms and two preschool classrooms, for a total of eight classrooms. Site A is licensed for 175 children and some attend every day while others have variable schedules. The two preschool classrooms are considered PFA classrooms while one of the two is dually participating in the Head Start program (Table 1). The other two sites consist of eight classrooms jointly, three at one site (site B) and five at the other (site C). Site B is licensed for 86 children while site C is licensed for 120. Again, some attend every day while others have variable schedules. At site B, two of three classrooms are PFA and one of those is dually Head Start. At site C there are again two PFA classrooms and both are also Head Start. The remaining classes are strictly ECCDC State requirement classes.

Table 1. Center Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Licensed Capacity</th>
<th>Number of Classrooms</th>
<th>Ages</th>
<th>PFA Classrooms</th>
<th>Head Start Classrooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site A (treatment)</td>
<td>175</td>
<td>8</td>
<td>4 months- 5 years</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Site B (control)</td>
<td>86</td>
<td>3</td>
<td>18 months- 5 years</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Site C (control)</td>
<td>120</td>
<td>5</td>
<td>12 months- 5 years</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Teachers

All 16 lead teachers from ECCD were selected to participate in the study. The sixteen lead teachers were then assigned to one of two groups. Eight lead teachers were assigned to the control group, five from site C and three from site B. The remaining eight, from site A, were assigned to participate in the reflective practice groups. The reflective practice groups were then divided in to two groups of four due to logistical factors such as the availability of the teachers at the same time, and the impact on the site. One group consisted of preschool teachers, teachers who serve children age 2.5 to 5 years. The second group consisted of infant and toddler teachers who serve children age 4 months to 2.5 years.

The ages of all sixteen lead teachers ranged from 21-60 years, all were female and came from diverse ethnicities and races with a majority of them being Hispanic. The years of experience as teachers ranged from 2.5 years to 35 years while their education ranged from a high school degree with some units toward child development to a bachelor’s degree in early childhood education or a related field. On average the teachers have been at the center for 5.5 years and 12 of the 16 have their Child Development Associate (CDA) Credential.

The teachers in the control group (sites B and C) ranged from 25 to 60 years old, with an educational background range of a high school degree to a bachelor’s degree in child development or a related field, and teaching experience ranged from 3 years to 33 years. The treatment group (site A) ranged from 21 to 53 years old, with an educational background range of a high school degree to a bachelor’s degree in child development or a related field, and a range of teaching experience from 3 years to 35.5 years. For a summary of the teacher characteristics, please refer to Table 2. Also included in Table 2 are the teacher self-reports of how many children they have in their classroom and out of that number how many the teachers feel are challenging child behaviors.

PROCEDURE

Once the sixteen teachers were selected and the groups were assigned all participants completed the three measures, the Classroom Appraisal of Resources and Demands (Lambert, McCarthy, & Abbott-Shim, 2001), the Preventive Resource Inventory (McCarthy & Lambert, 2001), and the Self-reflection and Insight Scale (Grant, Franklin, & Langford,
Table 2. Teacher Characteristics: Years of Experience, Years at Current Center, Children in the Classroom and Children with Behavior Problems (n=16)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control</th>
<th>Treatment</th>
<th>Total (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>Age</td>
<td>39.34</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>Years as a teacher</td>
<td>13.94</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Years at current center</td>
<td>6.94</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Children in the classroom</td>
<td>22</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>Children with behavior problems</td>
<td>5</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

2002). At the completion of the eight reflective practice sessions all three measures were completed a second time by all the participants. The reflective practice sessions were an hour in duration, held at the same time and day each week and at the close of each session the teachers and facilitator recorded their thoughts, feelings and emotions in a journal.

Descriptive statistics were used to analyze data from the Classroom Appraisal of Resources and Demands (CARD), the Preventive Resource Inventory (PRI), and the Self-Reflection and Insight Scale (SRIS). Qualitative data, in the form of reflective teacher and facilitator journals, were analyzed using codes based on the measures mentioned above. The following sections describe the methods and data analysis techniques that were used to evaluate these outcomes.

**INSTRUMENTS**

Three measures were completed by all participants before and after the reflective practice groups.

**Classroom Appraisal of Recourses and Demands (CARD)**

Teacher perceptions of work related stressors were measured using the Classroom Appraisal of Resources and Demands (CARD) (Lambert et al., 2001). There are 32 items on the CARD that question teachers about their perceptions of how demanding various activities and/or responsibilities are at school on a five point Likert scale that ranged from 1 - Not Demanding to 5 - Extremely Demanding. There are 27 items that question teachers about
their perceptions of how helpful various school resources are using a 5-point Likert scale ranging from 1 - *Very Unhelpful* to 5 - *Very Helpful*. The CARD is a self-report survey designed to measure perceptions of stress by breaking it down into two components, resources and demands. Overall stress scores were determined by comparing whether the demands are greater than the resources (D>R), whether the demands are equal to the resources (D=R) or whether the resources are greater than the demands (R>D). Higher teacher stress was defined as the classroom demands out weighing the resources, average teacher stress was defined as equal classroom demands and classroom resources, and low teacher stress was defined as classroom resources out weighing the demands. There are four subscales that emerged to account for the demands. As defined by Lambert et al. (2009) the Administrative Demands subscale include demands related to paperwork, assessments, meetings and other non-instructional duties. The Lack of Instructional Resources subscale includes demands that involve the availability of materials and supplies. The Children with Problem Behaviors subscale includes, demands with managing behavior and managing the learning environment when children are disruptive. Lastly, the Children with Other Special Needs subscale refers to children with other needs such as physical disabilities and English language learning. As for the resources, four subscales emerged. The Specialized Resources subscale involves resources for teachers who have children with special needs. The Additional Adults in the Classroom subscale involves parents or volunteers that help and support in the classroom. The Support Personnel subscale rates how helpful the people within the school system are that provide help to the teachers, predominantly children with special needs. Lastly, the Instructional Resources subscale rated how helpful the material resources and supplies are to the teachers (Lambert et al., 2009). Sample-specific reliabilities were found in a previous study by Lambert et al. (2009) and those are demonstrated by the following subscales for demands: Administrative Demands (Cronbach’s Alpha = .89), Availability of Instructional Resources (Cronbach’s alpha = .89), Children with Problem behaviors (Cronbach’s alpha = .93), Children with Other Special Needs (Cronbach’s alpha = .85), and Overall Demands scale score (Cronbach’s alpha = .93). The following includes the classroom resources subscale reliabilities: Specialized Resources (Cronbach’s alpha = .94), Additional Adults in the Classroom (Cronbach’s alpha = .84), Support Personnel
(Cronbach’s alpha = .89), Instructional Resources (Cronbach’s alpha = .84), and Overall Resources (Cronbach’s alpha = .94).

**Preventive Resource Inventory (PRI)**

Teacher perceptions of their preventive coping resources were measured using the Preventive Resource Inventory (PRI) (McCarthy & Lambert, 2001). The PRI consists of 80 items scored on a five point Likert scale, which ranges from 1 - *Strongly Disagree* to 5 - *Strongly Agree*. The PRI is self-reported and designed to measure teacher perceptions of their preventive coping resources and consists of five scales. The Self-Acceptance scale measures the point at which a person can accept what is challenging and overcome it (e.g. “I accept my imperfections”). The Scanning scale refers to one’s perceived ability to identify when things are stressful, expect it to be demanding and to create a plan (e.g. “I know how to prepare for stressful situations”). The Social Resourcefulness scale involves the ability to utilize relationships that are supportive and provide an outlet for when life gets demanding (e.g. “I have mutually supportive relationships”). The Perceived Control scale refers to the perception that one has successful preventive coping skills and can regulate when things get stressful (e.g. “I can handle stressful situations”). The Maintaining Perspective scale measures a person’s ability to manage emotions that are stress produced by evaluating their attitudes and beliefs (e.g. “I keep failures and difficulties in perspective”). Using a sample from a study on students at a university by McCarthy et al. (2006), internal consistency estimates found Cronbach alphas of .91 for Perceived Control, .88 for Maintaining Perspective, .87 for Social Resourcefulness, and .73 for Self-Acceptance. An internal consistency for Scanning of .86 was reported in a study validating the PRI with college students by Lambert, McCarthy, Gilbert, Sebree, and Steinly-Bumgarner (2006).

**Self-Reflection and Insight Scale (SRIS)**

The teachers’ reflective capacity was measured using the Self-reflection and Insight Scale (SRIS) (Grant et al., 2002). This is a self report survey of the teachers’ private self-consciousness. This measure includes twenty question designed to measure self-regulation and insight. Grant et al. (2002) define self-reflection as “the inspection and evaluation of one’s thoughts, feelings and behaviors”, and insight is defined as “the clarity of
understanding of one’s thoughts, feelings, and behavior”. The SRIS examines these using three different scales which include the Need for Self-Reflection (e.g. “It is important to me to be able to understand how my thoughts arise”), Engaging in Self-Reflection (e.g. “I don’t really think about why I behave the way that I do”), and Insight (e.g. “I am often aware that I am having a feeling, but I often don’t quite know what it is”). The teachers rated themselves on a six point Likert scale ranging 1 - *Disagree Strongly* to 6 - *Agree Strongly*. Validation for the measure was from a study with undergraduate psychology students across a seven week period. The test-retest reliability was .77 for the self-reflection and engagement in reflection items, and .78 for the insight items, (Grant et al., 2002).

**QUALITATIVE DATA**

At the close of each reflective practice session, teachers were given time to reflect on the session and to write down their thoughts and feelings in a journal. A journal was also kept by the reflective practice facilitator to document their perspective of the sessions.

**REFLECTIVE PRACTICE**

The reflective practice groups were conducted by the Developmental Specialist from ECCDC who is also the Primary Investigator of the study. The unique access to the center as an employee allowed for an established relationship with the teachers, familiarity with the agency and the desire for program improvement. The reflective practice facilitator has over 150 hours of reflective practice experience and was meeting with their reflective supervisor regularly while the sessions were being conducted. Due to the unique access the facilitator had as an employee, the groups were conducted on site during nap time for the children so that the teachers could leave their classrooms. During this time it was organized so that there was enough staff to cover for the teachers. The groups were every other week on the same day of the week and were an hour in duration. Discussions during each session varied across group and what each individual teacher brought to the group. Some centralized ideas were introduced to the group to allow for connection and insight, for example Christopher Walsh’s Zones, which provided the teachers with an understanding of what occurs when they are feeling threatened or dysregulated (Christopher Walsh, a personal commentary). While each discussion was unique to the experiences of the teachers, the groups typically followed a
regular routine which allowed for regularity, collaboration and reflection (Atchley, Hall, Martinez & Gilkerson, 2009 as cited in Heller et al., 2011).

1. **Preparation** – As a facilitator it is important to take time to prepare for the session: clear your mind, shift attention away from all other preoccupations. Check over the journal from the previous session and prepare to touch on the participant’s needs, strengths and follow up thoughts.

2. **Greeting and Reconnecting** – The first session included welcoming the participants to the group and describing reflective practice and what they can expect while creating a safe place. Following the first meeting, there will be a greeting to reconnect with the participants and then following up on what was discussed in the previous session.

3. **Opening the Dialogue and Finding the Agenda** – The facilitator would then begin with asking how the week has been for the group, or ask where they would like to begin. Once it is opened up discussion would follow the needs of the group, possibly focusing on challenges and collaborating with the other participants with on the thoughts, feelings and next steps.

4. **Telling the Story and Focusing on the Details** – Once a concern has been addressed it is important to listen to all the information and gather all the details. This is when the facilitator guides the discussion to completely understand perspectives, details, and feelings of the situation.

5. **Understanding Perspectives and Generalizing Hypothesis** – This is a time where the supervisor works to help the participant understand the perspectives of anyone else that may be involved in the situation and to gain a better understanding dynamics to help generate an open, tentative hypothesis. This is an exploratory way of reflecting on the thoughts, feelings, and behaviors while trying on a perspective of the others.

6. **Considering Next Steps** – After gathering the information the supervisor is there to guide the conversation to the next steps. This helps to give the participant direction and helps to organize what was learned about her during the session. This is a collaborative process.

7. **Closing** – End with an appreciation for the participant’s engagement and confirmation of the next session. Facilitator allowed for the teachers to take the last five minutes to reflect on the meeting and record it in their journals.

8. **Post Supervision Reflection** – Take time as the supervisor to reflect on and record key themes and affects expressed in a journal.

**DATA ANALYSIS PROCEDURES**

Quantitative data were analyzed using descriptive statistical analyses and Analysis of Covariance (ANCOVA) to compare post-test results for the treatment and control group using the pre-test as a covariate. Prior to testing for a main effect between the treatment and control group, a test for interactions between the group and the pre-test was conducted. If
there was no significant interaction effect, a test for the main effect between the treatment and control groups was carried out.

Qualitative data (teacher reflective journals) were analyzed using a priori coding based on the scales and subscales of the three measures used. In order to increase the consistency of the rating system, a second Mental Health Specialist examined the journals and an agreement was reached on how to code each comment in order to increase the inter-rater reliability of the codes. Based on the CARD, codes were used to assess Demands and Resources. A priori codes for the Demands scale included: Administrative Demands, Availability of Instructional Materials, Children with Problem Behaviors, and Other Student Related Demands. A priori codes for the Resources scale, included: Specialized Resources, Additional Adults in the Classroom, Support Personnel, and Instructional Resources. Based on the PRI, a priori codes for preventive coping resources included: Perceived Control, Maintaining Perspective, Social Resourcefulness, Self-Acceptance, and Scanning. Lastly, based on the SRIS, a priori codes for reflection and insight included: The reflective scales included Engagement in Self-Reflection, Need for Self-Reflection, and Insight.

Excerpts from the Reflective Supervisor (RS) journals were considered in conjunction with excerpts from the participant journals to further investigate the proposed hypotheses and questions to gain a deeper understanding of the process each group individually experienced.
CHAPTER 4

RESULTS

PRESENTATION OF THE FINDINGS

To test the proposed hypotheses and address the questions that participation in the reflective practice groups would have a positive effect on perceptions of work related stressors, perceptions of preventive coping resources, and overall reflective capacity, quantitative and qualitative data were triangulated. Quantitative data (the results of the three measures, The Classroom Appraisal of Resources and Demands (CARD), The Preventive Resource Inventory (PRI), and The Self-Reflection and Insight Scale (SRIS) and qualitative data (reflective journals from the participants and facilitator) were analyzed concurrently to determine the effects of the intervention.

Qualitative data were also analyzed using A priori coding based on the scales and subscales of the three measures used. A total of 17 codes were used; eight from Classroom Resources and Demands, Five from Preventive Coping Resources, and three from Self-Reflection and Insight. Table 6 (p. 37), 9 (p. 44) and 14 (p. 51) provide descriptions of each scale and subscale. In order to increase the consistency of the rating system a second Mental Health Specialist examined the journals to which an agreement was reached on how to code each comment to increase the inter-rater reliability of the accounts for when each of these themes were present. Excerpts from the Reflective Supervisor (RS) journals were also considered in conjunction with excerpts from the participant journals to further investigate the proposed hypotheses and to gain an understanding of the process each group individually experienced.

The following six questions were explored in presentations of both the quantitative and the qualitative findings.

1. Will there be a positive effect on teachers’ perceptions of work related resources and demands after participating in the reflective practice groups?

2. Will teachers express that they are feeling a decrease in their stress levels at work after participating in the reflective practice groups?
3. Will there be a positive effect on teachers’ perceptions of preventive coping resources for managing work related stress after participating in reflective practice groups?

4. Will teachers express that they are feeling more confident in their preventive abilities to cope with work related stressors after participating in reflective practice groups?

5. Will there be a positive effect on teacher abilities to self-reflect and use insight after participating in reflective practice groups?

6. Will teachers express that they are feeling more confident in their ability to self-reflect and use insight after participating in reflective practice groups?

**Question One:** Will there be a positive effect on teachers’ perceptions of work related resources and demands after participating in the reflective practice groups?

**Quantitative Findings:** The Classroom Appraisal of Resources and Demands (CARD) was used to test hypothesis one, which states that the participation in the reflective practice groups will have a positive effect on teacher perceptions of work related resources and demands. The means for the CARD measure for the control group and treatment group, before and after the treatment are summarized in Table 3. The Analysis of Covariance (ANCOVA) showed an interaction effect for the Overall Stress on the CARD between the groups and the Pre-test, F (1, 12) = 6.18, p < 0.05. For those teachers that scored low levels of stress on the pre-test, the treatment group reported higher levels on the post-test, thus an increase in stress. However, for those that scored high levels of stress on the pre-test, the treatment group reported lower on the post-test, thus a decrease in stress. However, there were no significant differences between the treatment and control group on any of the other measures most likely due to the small sample size which limited the power of the statistical tests.

**Table 3. Pre-Test and Post-Test ANCOVA for the CARD (n=16)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Scale</th>
<th>Control Pre</th>
<th>Control SD</th>
<th>Control Post</th>
<th>Control SD</th>
<th>Treatment Pre</th>
<th>Treatment SD</th>
<th>Treatment Post</th>
<th>Treatment SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARD</td>
<td>Classroom Demands</td>
<td>51.13</td>
<td>6.27</td>
<td>52.13</td>
<td>6.92</td>
<td>55.25</td>
<td>9.33</td>
<td>57.63</td>
<td>7.83</td>
</tr>
<tr>
<td></td>
<td>Classroom Resources</td>
<td>40.50</td>
<td>8.28</td>
<td>42.25</td>
<td>9.00</td>
<td>42.38</td>
<td>12.88</td>
<td>41.88</td>
<td>8.54</td>
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<tr>
<td></td>
<td>Overall Stress</td>
<td>10.88</td>
<td>12.05</td>
<td>9.75</td>
<td>14.43</td>
<td>13.00</td>
<td>12.01</td>
<td>15.88</td>
<td>11.51</td>
</tr>
</tbody>
</table>
In order to help explain the interaction effect on the stress measure, Figure 1 shows a scatterplot for the Pre and Post-test scores on Overall Stress with regression lines for the control group and the treatment group. The interaction is shown by the crossing of the two regression lines. The figure shows that for teachers with lower pre-test score, the teachers in the treatment group tended to score higher on the post-test than the control group, but for those teachers with higher pre-test scores, the teachers in the control group tended to score higher than the treatment group. Due to the small sample size, it appears that the couple outlying scores may have led to the significant interaction effect. On the graph, note the teacher from the control group with the negative pre and post-test score and the teacher from the treatment group with the high pre and post-test scores.

![Figure 1. Pre-test and post-test scores for overall stress.](image)

Table 4 shows that for both the control group and the treatment group, there were six teachers who indicated that the demands were greater than the resources, one who indicated that the resources and demands were equal and one who indicates that the resources were
greater that the demands, D>R = 6, R=D = 1, R>D = 1 at the pre-test. This means that a majority of the participants reported that their perceptions of work related demands outweigh their available resources. For both the control group and the treatment group the Classroom Demands averages increased slightly from pre-test to post-test although there was no statistical significance. Out of all of the participants (n=16) there were 12 that rated the demands greater than the resources at the pre-test. At the end of the reflective practice sessions the overall count for the control and treatment was the same as the total count for control and treatment at pre-test with 12 rating the classroom demands greater than the resources available: D>R = 12, R=D = 2, R>D = 2. Despite the report of greater demands than resources at the pre-test, there was not a statistically significant positive effect of reflective practice on demands and resources at the post-test. The qualitative data analysis as presented next provides a close look at the changes expressed by the teachers in their perceptions of work related stress.

**Question two:** Will teachers express that they are feeling a decrease in their stress levels at work after participating in the reflective practice groups?

**Qualitative Findings:** The first question to be addressed is if teachers express that they are feeling a decrease in their stress levels at work after participating in the reflective practice groups. A priori codes were used to count accounts of demands and resources mentioned in their journals and those were tallied across sessions to determine a decrease in mentioned demands and an increase in resources, if any. The a priori codes were based on the four subscales from the Classroom Demands scale and the four subscales from the Resources Available scale within the CARD (Lambert et al., 2009). Journals from the Reflective Supervisor (RS) were also considered in conjunction with the teacher journals in order to gain multiple perspectives of the sessions and a better understanding of the effects of reflective practice on stress throughout the sessions. Table 5 shows the accounts of each a priori code for the Infant/Toddler teacher across the eight sessions followed by excerpts from

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th></th>
<th></th>
<th>Post-Test</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R&gt;D</td>
<td>R=D</td>
<td>D&gt;R</td>
<td>R&gt;D</td>
<td>R=D</td>
<td>D&gt;R</td>
</tr>
<tr>
<td>Control</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>
Table 5. CARD Subscales for Infant/Toddler Teacher Journals across Sessions

<table>
<thead>
<tr>
<th>Measure</th>
<th>Subscale</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
<th>S8</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demands</td>
<td>Administrative Demands</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Lack of Instructional Materials</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Children with Problem Behaviors</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Other Student Related Demands</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Resources</td>
<td>Specialized Resources</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Additional Adults in the Classroom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>Support Personnel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Instructional Resources</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. S1 = Session 1, etc.

The Infant/Toddler teachers coded four accounts of Administrative Demands across all eight sessions and all four were within the first session,

Yellow J1: Session 1: I would like more time to meet the needs of all my 15 children. (Yellow J1, personal communication, December 8, 2011)

Yellow J1: Session 1: Time is very important and it goes fast throughout the day when you have so much to do. (Yellow J1, personal communication, December 8, 2011)

Yellow J3: Session 1: I love my baby in my room but I always think it’s very hard to work with all the staffs in the classroom. I wish I can choose good staff working with me. (Yellow J3, personal communication, December 8, 2011)

Yellow J3: Session 1: I try very hard to work in my room and I don’t like people walk in I don’t know and tell you what you need to do. (Yellow J3, personal communication, December 8, 2011)

From reports of the reflective supervisor journals Administrative Demands specific to the challenging relationship with the site supervisor were frequently discussed throughout all the sessions,

RS: Session 3: One teacher brought up their relationship with their supervisor and how the supervisor is someone who gets them up to “zone 3”. Many of the teachers agreed with this and shared that they don’t know how to talk to their
### Table 6. CARD Scales, Subscales and Descriptions

<table>
<thead>
<tr>
<th>Scale</th>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Demands</td>
<td>Administrative Demands</td>
<td>Meetings, paperwork, assessments, and various instructional duties</td>
</tr>
<tr>
<td></td>
<td>Lack of Instructional Materials</td>
<td>Demands associated with access to materials and supplies</td>
</tr>
<tr>
<td></td>
<td>Children with Problem Behaviors</td>
<td>Demands associated with behavior management and interactions with children who disrupt the learning environment</td>
</tr>
<tr>
<td></td>
<td>Other student Related Demands</td>
<td>Demands involved with children who present other needs to the teacher, such as English language learners or physical disabilities</td>
</tr>
<tr>
<td>Classroom Resources</td>
<td>Specialized Resources</td>
<td>Resources designed to help teachers with children who have special needs</td>
</tr>
<tr>
<td></td>
<td>Additional Adults in the Classroom</td>
<td>Help and support that teachers receive from parents and other volunteers in the classroom</td>
</tr>
<tr>
<td></td>
<td>Support Personnel</td>
<td>Helpfulness of individuals within the school system who are charged with providing assistance to teachers, particularly for working with children with special needs</td>
</tr>
<tr>
<td></td>
<td>Instructional Resources</td>
<td>Helpfulness of the supplies and material resources that are provided to the teachers</td>
</tr>
</tbody>
</table>


supervisor without feeling anxiety, anger, frustration, and sometimes leads them to tears. (RS, personal communication, December 29, 2011)

**RS: Session 5:** Situations with the supervisor were brought up again. Teacher shared how challenging it is for them when she comes in to the class and disrupts the teachers and kids. They feel as if she is rude to them and one teacher mentioned that she feels herself get in a defensive mode every time she talks to the supervisor. (RS, personal communication, January 12, 2012)

As for other mentioned demands there were three accounts of Other Student Related Demands and one for Children with Problem Behaviors in the teacher journals,

**Yellow J1: Session 2:** I was having a challenge with one of my parents because I think they don’t like me so it’s hard for me to talk to them. (Yellow J1, personal communication, December 15, 2011)

**Yellow J4: Session 1:** I want to know more about how contact with parents and how we can talk about their kid problems. Because I don’t want make them mad. (Yellow J4, personal communication, December 8, 2011)
**Yellow J1: Session 6:** I have a new child and mom is very difficult to talk to. Sometimes I get frustrated with this parent because they seem rude to me. (Yellow J1, personal communication, January 19, 2012)

**Yellow J4: Session 1:** I like more talks about children who has behaving it is very important to me because the teacher has to know what to do with this problem. (Yellow J4, personal communication, December 8, 2011)

The RS journals also describe these demands to be frequently discussed,

**RS: Session 2:** Right away the teachers began talking among each other about challenges when talking with parents. We talked about how important it is to build a relationships with them and how to also be aware of their perspective when sharing difficult information with them. (RS, personal communication, December 15, 2011)

**RS: Session 6:** The discussion revisited the challenge of talking to parents. Today one teacher brought up the situation about a parent challenge and finding the right way to talk with the parent. The child was new to the center and the teacher was seeing some developmental delays. (RS, personal communication, January 19, 2012)

Administrative Demands was the most frequently coded subscale while there were no accounts for Lack of Instructional Resources, or any of the four Resources subscales. The RS journals provided insight to the discussions of challenges teachers were facing and those themes included the relationship with their site supervisor, in addition to challenges with parents and children in their classroom.

Table 7 presents the Preschool teacher results for Demands and Resources subscales across the groups.

Similar to the Infant/Toddler teachers Administrative Demands was coded four times; two within the first session and the remaining two in the sixth session,

**Blue J3: Session 1:** I get extremely stressed when I have my children participating with each other and myself in a positive manner and I am called away by my supervisor or she disrupts the situation for non-important issues. (Blue J3, personal communication, December 6, 2011)

**Blue J1: Session 1:** I would also like to be able to talk about how management puts deadlines with certain paperwork that parents need to fill out but sometimes parents don’t always come to drop off or pick-up their children and we get blamed for it. (Blue J1, personal communication, December 6, 2011)

**Blue J3: Session 6:** Today, as in the past few days I feel as if I’m losing the joy, the passion of being a teacher because I have to spend most of the time being a secretary, a site clerk, that is overwhelming. (Blue J3, personal communication, January 10, 2012)
Table 7. CARD Subscales for Preschool Teacher Journals across Sessions

<table>
<thead>
<tr>
<th>Measure</th>
<th>Subscale</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
<th>S8</th>
<th>Total</th>
</tr>
</thead>
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<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Lack of Instructional Materials</td>
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<td>0</td>
<td>0</td>
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<tr>
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<td>Children with Problem Behaviors</td>
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<td>1</td>
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<td>0</td>
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<td></td>
<td>Other Student Related Demands</td>
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<td>0</td>
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<td>0</td>
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</tr>
<tr>
<td>Resources</td>
<td>Specialized Resources</td>
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<td>Additional Adults in the Classroom</td>
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<td>Support Personnel</td>
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<td>0</td>
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</tr>
</tbody>
</table>

**Blue J4: Session 6:** This week has been very overwhelming with the school paperwork. Not really knowing how to do it right. (Blue J4, personal communication, January 10, 2012)

The RS reported that Administrative Demands that involved paperwork and non-instructional tasks were more frequently discussed with the preschool teachers,

**RS: Session 1:** The preschool teachers had many questions, most regarding if they were going to have to do any extra paperwork. (RS, personal communication, December 6, 2011)

**RS: Session 6:** Today the teachers are very stressed out about the Head Start paperwork, PFA and lesson planning requirements. They vented that they have so much paperwork to do and feel like they have been asking for support but haven’t been getting it. (RS, personal communication, January 17, 2012)

Children with Behavior Problems was coded twice from the teacher journals and the RS journals state that it was discussed frequently within the group sessions,

**Blue J2: Session 1:** How to control children with challenging behaviors they are really active, can’t follow directions and aggressive. (Blue J2, personal communication, December 6, 2011)

**Blue J3: Session 4:** Today we talked a lot about [student], it is so helpful to be able to express the challenging behavior and challenges of having my grandson in the classroom because I always have to keep a line drawn between family emotion and the teacher emotion. (Blue J3, personal communication, January 4, 2012)

**RS: Session 2:** One teacher was able to share her thoughts about a challenging behavior in the classroom. Other teachers provided advice on what they have
tried… the teacher really enjoyed sharing her challenge and getting strategies to take back and try. (RS, personal communication, December 13, 2011)

RS: Session 5: One teacher shared about Legos. She said that she got really frustrated with some of the boys in her class because they were using the Legos in a different way than stacking them and not sharing. So she took them away from the children. (RS, personal communication, January 10, 2012)

Other Student Related Demands was coded once and not quite discussed as frequently when referring to RS journals,

Blue J1: Session 1: I would like to get help with how to handle the number of children that are inside a small room. (Blue J1, personal communication, December 6, 2011)

Lastly, there were two account of the subscale Support Personnel mentioned by teachers and the RS reports discussion around challenges with aides in the classroom,

Blue J1 I have had to do the paperwork myself because the girls that have helped me are subs. They don’t know the children to do individual lesson plans and they don’t know how to do observations. I feel like I’m wasting my time when I tell them to do something because I’ll have someone else tomorrow. I hope they get someone in my classroom soon. (Blue J3, personal communication, December 6, 2011)

Blue J4: Session 1: I need some help talking to my co-worker about using her phone during nap time. I don’t want her to get mad at me or the other teachers in the building. (Blue J4, personal communication, December 6, 2011)

RS: Session 4: Today the discussion focused around how to work with your co-teachers (aides) in the classroom. One teacher was having a challenge because she was newly appointed the lead teacher at the beginning of the year and she is younger, her aide is older than she is and this teacher feels like her aide doesn’t respect her. (RS, personal communication, January 4, 2012)

RS: Session 7: The teacher that was having challenges with her aides came back to the group to share that she had a meeting with her aides and that things went really well. They were able to share how they felt and work through it. This teacher felt really good and happy to share this with everyone. (RS, personal communication, January 24, 2012)

For the preschool teachers Administrative Demands was the most frequently coded subscale. There were no accounts of Lack of Instructional Resources and yet dissimilar to the infant/toddler teachers there were two accounts of the Support Personnel subscale out of the four Resources subscales. However, the reports were of how unhelpful the Support Personnel was to their classroom. According to the RS journals the major themes that emerged were
paperwork and non-instructional tasks, challenging child behaviors, and challenges with support personnel in the classroom.

Figure 2 shows the comparison between infant/toddler teachers and preschool teachers for the CARD subscales.

Figure 2. CARD subscales comparing infant/toddler teachers to preschool teachers.

Looking at Table 6 the number of demands mentioned in the Infant/Toddler teacher journals decreased across sessions whereas the resources remained the same. Looking at Table 7 the number of demands for the Preschool teachers remained low throughout the sessions and by the last few sessions there were no accounts of demands. However, Table 4 shows that both at pre-test and post-test 12 of the 16 teachers rated the Classroom Demands greater than the Classroom Resources. Despite the CARD revealing that there was not a significant effect of reflective practice on teacher perceptions of work related resources and demands, the teacher journals show that the teachers did indeed express a decrease in their levels of stress. Many teachers described how the meetings have helped them feel “strong”, that they can “breathe”, as if they have “more experience”, and that they “wish [the meetings] would continue”. Here are the last few journals of one teacher’s experiences
**Blue J1: Session 6:** It was a good meeting today I really enjoyed myself. Talking about all the stress that we have all gone through. I have been really stressed because I haven’t had a permanent staff in my classroom for three weeks. (Blue J1, personal communication, January 17, 2012)

**Blue J1: Session 7:** Today was a hard day for me just because I have been sick, so I just sat back and enjoyed the discussion. But this group has been helpful for me, because I have gotten to know my co-workers on a different level. It has been helpful to know that you’re not the only one going through this. It’s kind of like a support group for me. (Blue J1, personal communication, January 24, 2012)

**Blue J1: Session 8:** I think I have grown-up from the time we started having these meetings. I have learned how to deal better with stress… I don’t feel as stressed right now and I feel way better this way. Before all of this stress was causing problems in my personal life but I have learned to step back, find a solution and move on. (Blue J1, personal communication, January 31, 2012)

**Question Three:** Will there be a positive effect on teachers’ perceptions of preventive coping resources for managing work related stress after participating in reflective practice groups?

**Quantitative Findings:** The Preventive Resource Inventory (PRI) scores were examined to determine if the participation in the reflective practice groups had a positive effect on teacher perceptions of their preventive coping resource in dealing with work related stressors (Hypothesis 2) and answer the question will there be a positive effect on teachers’ perceptions of preventive coping resources for managing work related stress after the groups. The means of the five scales, Perceived Control, Maintaining Perspective, Social Resourcefulness, Self-Acceptance, and Scanning, were compared. The means for the PRI measure for the control group and treatment group, before and after the treatment are summarized in Table 8. There was an interaction effect for the Scanning scale on the PRI between group and the pre-test F (1, 12) = 4.744, p < 0.05. There were no other significant ANCOVA results on the PRI subscales.

In order to help understand the interaction effect, Figure 3 shows a scatterplot of the pre and post test for the Scanning scale with a regression line for both the control and treatment group. As with the Overall Stress scale on the CARD, the graph indicates that for teachers with lower pre-test score, the teachers in the treatment group tended to score higher on the prost-test than the control group (the regression line for the treatment group is above the regression line for the control group), but for those teachers with higher pre-test scores,
Table 8. Pre-Test and Post-Test ANCOVA for the PRI (n=16)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>PRI</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Self-Acceptance Scanning</td>
<td>54.38</td>
<td>6.26</td>
</tr>
<tr>
<td>Social Resourcefulness</td>
<td>54.25</td>
<td>8.07</td>
</tr>
<tr>
<td>Perceived Control</td>
<td>49.75</td>
<td>9.15</td>
</tr>
<tr>
<td>Maintaining Perspective</td>
<td>54.75</td>
<td>9.33</td>
</tr>
<tr>
<td>Overall Coping Resources</td>
<td>52.75</td>
<td>9.90</td>
</tr>
</tbody>
</table>

Figure 3. Pre-test and post-test for the scanning measure.
the teachers in the control group tended to score higher than the treatment group (the regression line for the control group is above the regression line for the treatment group). The regression line for the control group appears to be relatively flat which indicates that the post-test scores did not vary very much for the control group. It appears that the outlying score from one of the members of the treatment group may have led to the significant interaction effect. Again, there were no significant differences between the treatment and control group on any of the other measures most likely due to the small sample size which limited the power of the statistical tests. Qualitative data will be coded using a priori codes to look more closely at changes in teacher perceptions of preventive coping resources.

Question Four: Will teachers express that they are feeling more confident in their preventive abilities to cope with work related stressors after participating in reflective practice groups?

Qualitative Findings: The first question to be addressed is will teachers express that they are feeling more confident in their preventive abilities to cope with work related stressors after participating in reflective practice groups. A priori codes derived from the five scales of the PRI and they are described in Table 9. The five scales were Self-Acceptance, Scanning, Social Resourcefulness, Perceived Control, and Maintaining Perspective. Codes were based on the descriptions provided by McCarthy et al., (2006). Table 10 shows the coded scores for the PRI scales of Infant/Toddler teachers’ journals across sessions, followed by excerpts of the teachers’ journals and the RS journals to support the findings.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Control</td>
<td>The belief that one can cope successfully with life demands and manage situations that can potentially become stressful</td>
</tr>
<tr>
<td>Maintaining Perspective</td>
<td>Attitudes and beliefs consist with preventing stressful situations and keeping stress – produced emotions at manageable levels</td>
</tr>
<tr>
<td>Social Resourcefulness</td>
<td>Ability to draw upon a social network of caring others who can act as a buffer against life demands</td>
</tr>
<tr>
<td>Self-Acceptance</td>
<td>Degree to which one can accept and overcome imperfections in dealing with demanding life situations</td>
</tr>
<tr>
<td>Scanning</td>
<td>Ones perceived ability to recognize, anticipate and plan for demands and potential stressors</td>
</tr>
</tbody>
</table>
Table 10. PRI Scales for Infant/Toddler Teachers Journals across Sessions

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
<th>S8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Control</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Maintaining Perspective</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Social Resourcefulness</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Self-Acceptance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Scanning</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>

The infant/toddler teacher journals coded five total accounts for the Perceived Control scale. This scale was coded if teachers talked about having the ability to cope successfully when some situations may have been stressful,

**Yellow J2: Session 1:** I like to complete tasks myself so that they are the way I want them. (Yellow J2, personal communication, December 8, 2011)

**Yellow J3: Session 3:** I try a lot with all the parents in my classroom to communicate. I think that it helps a lot when you’re working with parents. (Yellow J3, personal communication, December 29, 2011)

**Yellow J3: Session 7:** I was worried about how to work with sub when they come to my class to help me or other teachers come to work with some kids. Now I feel better because I get that I have to talk about rules of the class to subs. (Yellow J3, personal communication, January 26, 2012)

The RS journal discusses one account in particular where a teacher shared how the reflective practice meeting had helped her to gain control in a situation that potentially could have been stressful,

**RS: Session 4:** A teacher shared today that after the discussion in the previous meeting she found herself being more aware of the zones when with the children. She said she was able to “calm herself and make a better judgment call.” (RS, personal communication, January 5, 2012)

Maintaining Perspective was coded two times. This code was used when teachers mentioned keeping stressful emotions controllable by maintaining some perspective,

**Yellow J4: Session 6:** My idea about today is: when it’s a situation I don’t like with [her] just make myself calm because I don’t want to get in any trouble and she is my supervisor. (Yellow J4, personal communication, January 19, 2012)

**Yellow J3: Session 5:** At the meeting today, I feel that [teacher] needs a few more days to calm down and then sit to talk with the one who made her mad. The more you understand what you expect... you understand together. Helps to communicate. (Yellow J3, personal communication, January 12, 2012)
The most frequent account was Social Resourcefulness which was coded nine times. Teachers frequently described having a support system or feeling supported by the group, here are a few accounts,

**Yellow J1: Session 2:** I like talking with other teachers at the meetings. (Yellow J1, personal communication, December 15, 2012)

**Yellow J4: Session 2:** I like come to these meetings because if I have problems in my classes I can share with other teacher. (Yellow J4, personal communication, December 15, 2012)

It was also very apparent from the perspective of the RS that the teachers felt supported by the groups and enjoyed coming to them to discuss their challenges and know that they aren’t alone,

**RS: Session 2:** One thing that the teachers did say before the meeting was over was that they were all excited for the meetings to learn and to talk with other teachers. (RS, personal communication, December 15, 2012)

**RS: Session 7:** It is great to see them collaborating together and sharing experiences and perspectives. (RS, personal communication, January 26, 2012)

The second most frequent account was Scanning which was coded eight times. It was used when teachers were able to see a situation and plan for what to do to get through the challenges as exemplified by the following,

**Yellow J3: Session 4:** I try and communicate with my parents very well, I am so happy to see all my parents happy and leave their babies with us. (Yellow J3, personal communication, January 5, 2012)

**Yellow J2: Session 4:** I’ve also learned to recognize situations that upset me and how to make them better. (Yellow J2, personal communication, January 5, 2012)

Self-Acceptance, the understanding that things might not always work out the way you planned and overcoming them, was not coded.

Table 11 shows the coded results for the preschool teachers’ journals across sessions and is followed by excerpts of the teacher journals and the RS journals.

**Table 11. PRI Scales for Preschool Teachers Journals across Sessions**

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
<th>S8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Control</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Maintaining Perspective</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Social Resourcefulness</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Self-Acceptance</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Scanning</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>
The least frequently coded scales were Perceived Control which was coded three times,

**Blue J3: Session 6:** I know things will get better eventually. (Blue J3, personal communication, January 17, 2012)

**Blue J2: Session 7:** In the morning I was just like whatever I didn’t want to do anything, I was so frustrated about what was going on in the classroom with the staff and now that I talked it over I feel good I feel happy. (Blue J2, personal communication, January 24, 2012)

**Blue J1: Session 8:** I have learned to leave stuff behind and forget about my problems once in a while. (Blue J1, personal communication, January 31, 2012)

While Maintaining Perspective coded four times,

**Blue J2: Session 1:** Keep personal problems at home and not let them intervene with your day at work. (Blue J2, personal communication, December 6, 2011)

**Blue J2: Session 4:** We needs to work together and make things easier for each other to make it better and easier. (Blue J2, personal communication, January 4, 2012)

**Blue J4: Session 8:** I learned that I have to let things go, but at the same time to have an open mind to new things. (Blue J4, personal communication, January 31, 2012)

The most frequently coded scale was Social Resourcefulness which coded 17 times. This was also described as being a frequent topic in the RS journals,

**Blue J3: Session 4:** These meetings truly are not only healthy for each of our mental health and well-being in this stressful position but we walk away feeling like a team. (Blue J3, personal communication, January 4, 2012)

**Blue J3: Session 3:** My co-workers were very helpful and provided me with lots of great ideas. (Blue J3, personal communication, December 20, 2011)

**Blue J4: Session 2:** Today the things we talked about were great for [teacher] to try. (Blue J4, personal communication, December 13, 2011)

**Blue J2: Session 5:** I got really good feedback about it and I am really excited to see what’s going to happen when I put their ideas in to action… it just seems like people really care about our concerns in our classrooms. (Blue J2, personal communication, January 10, 2012)

**RS: Session 2:** The teachers really enjoyed sharing her challenges and getting strategies to take back and try. At the end of the group the teacher who shared her challenging child behavior shared that she is excited for the groups because it’s nice to know that she’s not the only one out there with these issues. (RS, personal communication, December 15, 2011)

Self-Acceptance coded seven times, and was more frequent for the preschool teachers compared to the infant/toddler teachers. One preschool teacher wrote,
**Blue J1: Session 4:** I really think we can make it better. (Blue J1, personal communication, January 4, 2012)

**Blue J3: Session 3:** I know this situation is going to improve for all of us. (Blue J3, personal communication, December 20, 2011)

Lastly, Scanning was coded nine times,

**Blue J2: Session 4:** I’m going to give more positive feedback to my staff members to see if that will help us more. I think I really haven’t been doing that as much as I should be. (Blue J2, personal communication, January 4, 2012)

**Blue J1: Session 1:** I think some of the ideas that the girls shared will really help me in my classroom…I will do some changes in my routine to help this child. (Blue J1, personal communication, December 6, 2011)

**Blue J1: Session 3:** Step back and look at the big picture you see something that could have changed the situation. (Blue J1, personal communication, December 20, 2011)

Figure 4 shows the comparison between infant/toddler teachers and preschool teachers for the PRI scales. Social Resourcefulness was the most frequently coded for both groups with Scanning as the second most frequent.

![Figure 4. PRI scales comparing infant/toddler teachers to preschool teachers.](image)

Tables 10 and 11 show that across sessions both groups of teachers remained consistent with describing or utilizing preventive coping resources, however there was no significant effect of reflective practice on teachers’ perceptions of coping resources as
measured by the PRI. Despite this, the teacher journals and the RS journals provide qualitative data that show how the reflective practice groups have had a positive effect on teachers feeling more confident in their abilities to draw from resources to cope with challenges. Teachers expressed feelings of being “not the only one out there”, as if they could now “see the big picture”, and that the groups made them feel “like a team”. The following excerpts from the last few sessions exemplify this,

**Blue J3: Session 4:** These meetings are truly not only healthy for each of our mental well being in this stressful position but we walk away feeling like a team. (Blue J3, personal communication, January 4, 2012)

**Blue J3: Session 6:** I love our group time, every week that passes I realize more and more how important it is to be able to let go, vent, and share how I am thinking and feeling. (Blue J3, personal communication, January 17, 2012)

**Blue J1: Session 7:** This group has been helpful for me because I have gotten to know my co-workers on a different level. It’s helpful to know you’re not the only one going through this. It’s kind of like a support group for me. (Blue J1, personal communication, January 24, 2012)

**Yellow J1: Session 8:** I liked the meetings, it was nice to talk to my other teachers and talk about problems I’m having with my class and [site] supervisor. (Yellow J1, personal communication, February 2, 2012)

**Yellow J2: Session 4:** Overall these meetings have helped me become aware of different situation good and bad and brainstorm on them. I’ve also learned to recognize situations that upset me and how to make them better. (Yellow J2, personal communication, January 5, 2012)

**Question Five:** Will there be a positive effect on teacher abilities to self-reflect and use insight after participating in reflective practice groups?

**Quantitative Findings:** The Self-Reflection and Insight Scale (SRIS) was used to determine if the participation in the reflective practice groups will have a positive effect on teacher abilities to self-reflect and use insight (Hypothesis 3 and Question 5). Mean scores of the three different scales, Engagement in Self-Reflection, Need for Self-Reflection and Insight, were compared. The means for the SRIS measure for the control group and treatment group, before and after the treatment are summarized in Table 12. While there was no statistically significant difference, a look at the number of teachers from the treatment group who had increases in scores on the insight scale (Table 13), indicates that they did appear to have some growth in this area. The small samples size may have limited the power of the
Table 12. Pre-Test and Post-Test ANCOVA for the SRIS (N=16)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Scale</th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>SRIS</td>
<td>Engagement in Self-Reflection</td>
<td>26.50 4.54 SD</td>
<td>26.50 4.84 SD</td>
</tr>
<tr>
<td>SRIS</td>
<td>Need for Self-Reflection</td>
<td>27.75 4.80 SD</td>
<td>27.50 5.16 SD</td>
</tr>
<tr>
<td>SRIS</td>
<td>Insight</td>
<td>37.38 4.63 SD</td>
<td>35.50 4.99 SD</td>
</tr>
</tbody>
</table>

Table 13. SRIS: Insight Scale (n=8)

<table>
<thead>
<tr>
<th></th>
<th>Insight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Increase</td>
</tr>
<tr>
<td>Control</td>
<td>3</td>
</tr>
<tr>
<td>Treatment</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
</tr>
</tbody>
</table>

A statistical test and qualitative data will be provided following to look more closely at teacher’s self-reflection and insight.

*Question Six:* Will teachers express that they are feeling more confident in their ability to self-reflect and use insight after participating in reflective practice groups?

*Qualitative Findings:* Lastly, question six was examined, whether teachers expressed that they are feeling more confident in their ability to self-reflect and use insight after participating in reflective practice groups. A priori codes of Engaging in Self-Reflection, Need for Self-Reflection and Insight were coded from the teacher journals. Self-Reflection refers to one’s attempts to evaluate their thoughts, feelings and behaviors, while insight refers to understanding clearly the thoughts, feelings and behaviors (Grant et al., 2002). Table 14 provides a description of each and Table 15 provides the number of times each scale was coded, followed by excerpts of the teacher journals and the RS journals to support the findings.

Engagement in Self-Reflection was coded six times; this was when teachers were describing their thoughts and feelings,

**Yellow J1: Session 5:** After the meeting I realized I was being disrespectful.
(Yellow J1, personal communication, January 12, 2012)
Table 14. SRIS Scales and Descriptions

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement in Self-Reflection</td>
<td>When teachers are evaluating their thoughts, feelings and behaviors</td>
</tr>
<tr>
<td>Need for Self-Reflection</td>
<td>When teachers show that they understand why it is important to know what their thoughts, feelings and behaviors mean</td>
</tr>
<tr>
<td>Insight</td>
<td>The clarity of understanding of one’s thoughts, feelings and behavior</td>
</tr>
</tbody>
</table>

Table 15. SRIS Scales for Infant/Toddler Teachers Journals across Sessions

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
<th>S8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement in Self-Reflection</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<td>0</td>
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<td>6</td>
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<tr>
<td>Need for Self-Reflection</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Insight</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Yellow J2: Session 1:** I have a hard time telling my staff what to do all the time. (Yellow J2, personal communication, December 8, 2011)

**Yellow J1: Session 7:** I feel comfortable being a lead teacher because I’m ok with telling [my aides] what to do. (Yellow J1, personal communication, January 26, 2012)

The Need to Self-Reflect was also coded six times, and this was when teachers began to express that they saw the value in reflection. The following excerpts are exemplary of the teachers Need for Self-Reflection,

**Yellow J2: Session 4:** What stood out the most from this meeting was how much us teachers affect the children in positive ways. (Yellow J2, personal communication, January 5, 2012)

**Yellow J2: Session 3:** Before today I have never really thought about how to react to stress. (Yellow J2, personal communication, December 29, 2011)

**RS: Session 2:** We talked about how important it is to build a relationship with [parents] and how to also be aware of their perspective when sharing difficult information. (RS, personal communication, December 15, 2011)

**RS: Session 3:** Today we talked about the zones and “flipping your lid”. The teachers really seemed to relate to these two models and were excited to begin noticing times when they were feeling themselves getting dysregulated. (RS, personal communication, December 29, 2011)

Both Engagement in Self-Reflection and the Need for Self-Reflection were the highest coded scales of the three SRIS codes. Insight was coded only coded three times,
Yellow J1: Session 6: Sometimes I get frustrated with this parent because they seem rude to me. (Yellow J1, personal communication, January 19, 2012)

Table 16 shows the preschool teacher coded scores for the SRIS scales followed by the journal excerpts.

Table 16. SRIS Scales for Preschool Teacher Journals across Sessions

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
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<td>0</td>
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<td>1</td>
<td>2</td>
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<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
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<td>6</td>
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The Need for Self-Reflection was coded most frequently at 17 times when teachers wrote about their need to gain a better understanding of something they’re experiencing,

Blue J3: Session 8: It is important to reflect, learn and grow in all the different situations we face in our profession. (Blue J3, personal communication, January 31, 2012)

Blue J2: Session 6: Hearing how they are all stressed got me thinking that how at work I’m not really stressed as much as before I’m not sure if it’s the meetings we are having… but the bad thing is that once I leave work and go home everything stresses me out. (Blue J2, personal communication, January 17, 2012)

Engagement in self-reflection was coded six times,

Blue J1: Session 3: I was thinking, while talking about the problem today how important it is to be on the same page as parents when it comes down to what’s best for the children. (Blue J1, personal communication, December 20, 2011)

Blue J1: Session 8: I have learned how to deal better with stress. (Blue J1, personal communication, January 31, 2012)

Blue J3: Session 8: It has helped me to breathe. (Blue J3, personal communication, January 31, 2012)

Insight was also coded six times and through the RS journals it was apparent that Insight was encouraged through open ended questions and understanding perspectives,

Blue J2: Session 1: I’m just a person that likes to follow directions and I don’t like to be a leader and I don’t like to tell people to do things, I feel uncomfortable. (Blue J2, personal communication, December 6, 2011)

Blue J1: Session 6: It was a good meeting today I really enjoyed myself. (Blue J1, personal communication, January 17, 2012)
**RS: Session 5:** I asked her why, and what were they doing with them, and what were they learning, and came to the conclusion that the boys were exploring, using their imagination, becoming engineers. We came to the conclusion that she wasn’t able to step back and really ask herself what are they learning and why it is so bad that they use [the Legos] unconventionally. (RS, personal communication, January 10, 2012)

Figure 5 shows the comparison between infant/toddler teachers and preschool teachers for the SRIS scales. The preschool teachers scored highest in Need for Self-Reflection which again shows that they are beginning to understand how important it is to be aware of what their thoughts, feelings and behaviors mean.

![Figure 5. SRIS scales comparing infant/toddler teachers and preschool teachers.](image)

According to Tables 15 and 16 both groups remained consistent with the number of times they expressed reflective and insightful thoughts in their journals. The Preschool teachers recorded more times the benefits of the support from the group of teachers each meeting. Despite the fact that the quantitative data shows that there were nothing significant, the teacher reflective journals and the RS journals provide insight to what experiences the teachers were having tell otherwise. Through the journals there is evidence that the teachers were indeed beginning to feel more confident in their abilities to self-reflect and use insight after participating in reflective practice groups. The following excerpts illustrate that point,
**Yellow J3: Session 8:** I think the meeting[s] help the teachers to be strong, talk to parents, be strong myself, more experience with the staff to communicate right or wrong… feels safe and I feel happy to change. I hope the meetings continue, very supportive for the staff. (Yellow J3, personal communication, February 2, 2012)

**Blue J4: Session 8:** I think having our meetings with you and all the other teachers really helps all of us. I have learned that I can’t do everything. I learned that I have to let things go, but at the same time I have to keep an open mind to new things. I really enjoyed working and learning with the teachers. (Blue J4, personal communication, January 31, 2012)

**Blue J3: Session 8:** Wow sitting here reading over different thoughts, emotions and situations I personally have gone through since we began meeting has really opened my eyes to how much it is important to reflect and learn and grow in all the different situations we face in our professional and personal lives. Once again the day was very busy, but how appropriate it is to end the day with co-workers in a reflective meeting. It has helped me to breathe. (Blue J3, personal communication, January 31, 2012)

**RS: Session 8:** Today was the last meeting. It was more of an overall reflection on the sessions and how the teachers felt about the groups. Overall the teachers really enjoyed the groups. They liked that they could talk with the other teachers about challenges and get advice from them and take it back and try it in their classroom. They also shared that it helped them be more aware of when they get upset, frustrated, or stressed. (RS, personal communication, February 2, 2012)

**PROCESS OF THE SESSIONS**

Figures 6 and 7 are the key concepts of the sessions arranged in order to see the process of reflection that each group experienced parallel to the process experienced by the RS.
Figure 6. Group 1: Infant/toddler teachers.
Figure 7. Group 2: Preschool teachers.
CHAPTER 5

DISCUSSION

PRESENTATION OF THE FINDINGS

The purpose of this study was to examine the effects of reflective practice as a resource to make a positive impact on work related stress for early child care teachers. Furthermore, to investigate the effect that reflective practice has on teacher perceptions of coping resources and their reflective capacity. Reflective practice groups were implemented to provide teachers with support to discuss challenges they face in the classroom, to gain an understanding of thoughts and feelings, and collaboratively create next steps for overcoming challenges. First and foremost, the motivation for this study was to gain an understanding that early childhood educators are experiencing stress in the forms of high demands and limited resources and minimal psychological coping resources to overcome them. In addition, as Kyriacou (2001) explains, past studies on stress examine questionnaires which appraise overall levels of stress or take inventories of stressful sources. While this study does examine overall levels of stress through self-report questionnaires, it also provides an intervention for potentially providing teachers with the means to overcome harmful consequences stress may have on them. This study also includes teacher journals of their individual experiences, and this is another reason this study is set apart from other research. It is critical to understand that this stress can lead to emotional exhaustion, depersonalization, and disengagement which have been found to have a direct impact on teacher well being, and have been found to correlate with burnout (Chang, 2009; Demerouti et al., 2001; Maslach & Leiter, 2008; McGrath & Huntington, 2007). In addition, the negative effect these symptoms may have on teachers can have a negative impact on teacher-child relationships (Zhai et al., 2011). For young children early relationships are vital to cognitive and social emotional development. Children are spending more time in child care settings and are forming close attachments with their child care providers. The negative effect that stress can have on early child care educators can lead to a decrease in caregiver sensitivity, caregiver empathy, and overall emotional connections. The first five years of life are critical for social emotional
development and if teachers are emotionally exhausted then they are more likely to have a negative impact on teacher-child relationships.

This study was designed to implement reflective practice groups in order to decrease teacher perceptions of work related demands and resources and provide them with a supportive resource. Therefore, it is important to consider the qualitative data along with the quantitative data to show the process the teachers experienced and the outcomes of reflective practice. The research methods of this study allowed the teachers to describe their thoughts, feelings and emotions after each reflective session. The journals gave the teachers the freedom to describe what challenges they were experiencing at work and what emotions emerged. All six main questions will be discussed describing both the qualitative and quantitative data concurrently. Lastly, it is important to note that only the treatment group was able to keep journals of their experiences therefore they cannot be compared to the control group.

**DISCUSSION OF THE FINDING**

*Question One:* Will there be a positive effect on teachers’ perceptions of work related resources and demands after participating in the reflective practice groups?

The quantitative results of the study did not support the first hypothesis and question that the participation in the reflective practice groups will have a positive effect on teacher perceptions of work related resources and demands as measured by the CARD. The small sample size was predicted to limit the power of the statistical tests. Other limitations include the length of the study and the idea that reflective practice is an internal process that takes place and it is often hard measure the effects. The results did show an interaction effect for the Overall Stress on the CARD between the groups and the Pre-test. They also showed that teachers were experiencing high levels of stress across groups, and before and after the intervention of reflective practice groups. Therefore quantitative data reveals that the reflective practice groups did not have a positive effect on teacher perceptions of work related demands and resources. However, the results did indicate that early childhood educators from one center based program were experiencing high levels of stress. Data were consistent with a previous study on emotional intelligence in the workplace where it was found that among human service occupations teachers were among the group that
experienced the highest levels of stress (Ogińska-Bulik, 2005). Despite the quantitative data not supporting the hypothesis, qualitative data did show some support toward teachers expressing positive changes due to reflective practice.

**Question Two:** Will teachers express that they are feeling a decrease in their stress levels at work after participating in the reflective practice groups?

The qualitative results acquired from the journals show that teachers indeed expressed that the reflective practice groups have potential to help decrease their stress at work. Examining the a priori codes used in the qualitative assessment, across sessions teachers decreased the number of times they mentioned demands and increased the number of times they mentioned or utilized preventive coping resources. Qualitative data show that teachers from both groups were experiencing high levels of stress before and after the reflective practice. As research shows, teachers who experience high demands and limited resources, along with minimal coping resources, are more likely to experience levels of stress (Lambert et al., 2009; Lazarus & Folkman, 1987). The qualitative data from the journals show that teachers decreased expressing demands but increased the use of psychological coping resources. Therefore it appeared that reflective practice did have some positive affects on the teachers work related stress. During the first sessions for both reflective groups the teachers were asked to express their current challenges and what they hoped to gain from reflective practice. Evidence of this is can be found in these journal entries,

**Blue J3:** I get extremely stressed when I have my children participating with each other and myself in a positive manner and I am called away by my supervisor or she disrupts the situation for non-important issues. Then I have to start all over to maintain a calm environment. (Blue J3, personal communication, December 6, 2011)

**Blue J2:** How to control myself when I am really stressed out. (Blue J2, personal communication, December 6, 2011)

**Yellow J1:** I would like more time to meet the needs of all my 15 children. Time is very important and it goes fast throughout the day when you have so much to do. I have 5 children with a lot of needs. Sometime I wish I had more time. (Yellow J1, personal communication, December 8, 2011)

As the groups progressed, teachers began journaling less about what causes them stress and more about how they’re feeling and what next steps they’re going to take when various challenges present themselves. From the a priori codes the top demands mentioned were
administrative demands, challenging child behaviors and other student related demands. These stressors were consistent with Kelly and Berthelsen’s (1995) study which consisted of teachers keeping reflective journals over a 2-week period of their daily challenges and sources of stress. The results showed that “time pressures, meeting children’s needs, and dealing with non-teaching tasks” were among the top themes or sources of stress described (Kelly & Berthelsen, 1995). Two material resources were described but how unhelpful their support personnel or aides were in the classroom. The two were the only mention of resources being helpful or unhelpful between both groups and across all sessions. While the CARD measures classroom resources, such as instructional materials and classroom aides (Lambert et al., 2009), reflective practice is meant to focus on the psychological resources such as maintaining perspectives to recognize how to keep stress produced feelings manageable (McCarthy et al., 2009). Through the first few sessions an atmosphere of trust and safety were established which allowed for teachers to talk more openly in the group. Gilkerson (2004) describes this as the “secure base” which is essential in reflective practice and the parallel process that occurs with the reflective supervisor and teachers, and essentially teachers and the children in their care. In providing this secure base teachers are able to feel comfortable reflecting on their interactions while becoming aware of their emerging emotions and taking in to perspective those emotions of the children (Virmani & Ontai, 2010). Here are some experiences from the journals,

Yellow J2: Before today I have never really thought about how I react to stress. The 3 zones idea can be helpful in the future to calm my self or think about what I’m feeling and why so that I can prevent the reactions that accompany hart situations, and make the situation better/more positive. I hope to pay more attention to what makes me snap. (Yellow J2, personal communication, December 29, 2011)

Blue J3: I love our group time, every week that passes I realize more and more how important it is to be able to “let go”, “vent”, share how I am thinking and feeling. Today, as in the past few days I feel as if I am losing the joy, the passion of being a teacher because I have to spend most time being a secretary, a site clerk, that is overwhelming. I know things will get better eventually, I just hope I don’t lose who I am as a teacher while I am waiting. (Blue J3, personal communication, January 17, 2012)

Finally by the end of the groups teachers were reflecting on how the groups had helped to decrease their stress.
Blue J3: Wow, sitting here reading over different thoughts, emotions and situations I personally have gone through since we began meeting has really opened my eyes to how much it is important to reflect, learn, and grow in all the different situations we face in our professional and personal lives. Once again the day was very busy, but how appropriate it is to end the day with co-workers in a reflective meeting. It has helped me to breathe. (Blue J3, personal communication, January 31, 2012)

Blue J1: I think I have grown-up from the time we started having these meetings. I have learned how to deal better with stress, I have learned to leave stuff behind and forget about my problems once in a while. I don’t feel as stressed right now and I feel way better this way. Before all of this stress was causing problems in my personal life but I have learned to step back, leave things behind, find a solution and move on. (Blue J1, personal communication, January 31, 2012)

Question Three: Will there be a positive effect on teachers’ perceptions of preventive coping resources for managing work-related stress after participating in reflective practice groups?

The quantitative results from the PRI also did not support the second hypothesis and question three that the participation in the reflective practice groups will have a positive effect on teacher perceptions of their preventive coping resources for dealing with work-related stressors. However, for the scale Scanning there was an interaction effect that shows that for the teachers with lower scores on the pre-test, the treatment group scored higher in this scale at post-test. This means that some teachers in the treatment group increased their scores for Scanning. Therefore, teachers reported being able to recognize, anticipate and plan for the potential stressors that they may experience more in the post-test than in the pre-test (McCarthy et al., 2009). Again the small sample size contributed to the lack of power for statistically significant results. Qualitative data proves otherwise.

Question Four: Will teachers express that they are feeling more confident in their preventive abilities to cope with work-related stressors after participating in reflective practice groups?

The qualitative data support the hypothesis and question four, that teachers expressed feeling more confident in their preventive abilities to cope with work-related stressors after participating in the reflective practice groups. A priori coding shows that across the sessions both groups, the infant/toddler teachers and the preschool teachers, remained consistent of the use of preventive coping resources expressed in their journals. The most frequently
occurring were social resourcefulness and scanning for both groups. This supports the quantitative data that there was an interaction effect that shows that for the teachers with lower scores on the pre-test, the treatment group scored higher in this scale at post-test. Teachers not only reported an improvement in the questionnaire but they also showed improvements within their journals.

Yellow J1: It was nice to hear [teacher’s story about how she noticed the zones when she was playing with the children. I will try to recognize when I am getting mad. (Yellow J1, personal communication, February 2, 2012)

Blue J1: I didn’t realize until it was brought to my attention, how easy we give up sometimes. We don’t feel like going the extra mile and we just give up on the children sometimes. Instead of using that moment to teach them something and to help them brainstorm ideas that will be with them for the rest of their lives. Sometimes we get so caught up in our frustrations that we don’t see the big pictures. (Blue J1, personal communication, January 10, 2012)

Blue J2: I am going to give more positive feedback to my staff members to see if that will help us more. I think I really haven’t been doing that as much as I should be. Even have a talk with her about our same goal and that we need to work together and make things easier for each other to make it better and easier. (Blue J2, personal communication, January 4, 2012)

The second most frequent coping resource was social resourcefulness. This describes utilizing the social network of teachers as support to manage and cope with potential stressors. As part of one of the factors of self-efficacy this collaborative process provided the teachers with confidence to share with other teachers their thoughts and feelings.

Question Five: Will there be a positive effect on teacher abilities to self-reflect and use insight after participating in reflective practice groups?

The quantitative results from the SRIS were not supportive of the third hypothesis. The third hypothesis and question five stated that the participation in the reflective practice groups will have a positive effect on teacher abilities to self-reflect and use insight. The results showed no statistical significance however, the number of teachers in the treatment group who increased their insight score from pre-test to post-test was more than the number of teachers in the control group. Due to the small sample size the effectiveness of the groups was predicted to not have enough statistical power to be significant. Additionally, the measures themselves may not have measured what was intended. Reflective practice is a process that requires cognitive and emotional changes which are challenging to measure.
Question Six: Will teachers express that they are feeling more confident in their ability to self-reflect and use insight after participating in reflective practice groups?

The qualitative data of the study does support the question will teachers express that they are feeling more confident in their abilities to self-reflect and use insight after participating in reflective practice groups. Reflection is the main component to reflective practice and before reflection can occur the group’s atmosphere must be one that is safe. While the length of the group was only eight sessions teachers began to understand the meaning of reflection toward the end of the sessions. At first it was difficult for them to distinguish discussing their personal lives and describing feelings. According to the a priori coding reflection and insight were mostly consistent across groups and across sessions. The need for self-reflection was consistently coded due to the fact that teachers began to understand how important it is to reflect on their thoughts and feelings. Evidence for this is apparent in these two excerpts,

Blue J3: Wow, sitting here reading over different thoughts, emotions and situations I personally have gone through since we began meeting has really opened my eyes to how much it is important to reflect, learn and grow in all the different situations we face in our professional and personal lives. (Blue J3, personal communication, January 31, 2012)

Yellow J2: Overall these meetings have helped me become more aware of different situations good and bad and to brainstorm on them. I’ve also learned to recognize situations that upset me and how to make them better. (Yellow J2, personal communication, January 5, 2012)

According to the transactional model of stress and coping, which provides one of the theoretical frameworks of the study, teachers began to express that they were more aware of their potential stressors and anticipate whether or not they feel they have the coping abilities to manage those stressors.

Reflective Process for Group 1 and 2

Each group experienced a different process where different key components of reflective practice emerged at different times depending on the safety and flow of the group. At the close of the sessions the process was organized into key themes that emerged from the teacher journals and the journal of the reflective supervisor. A parallel process occurred where the reflective supervisor guided the group through the process and yet followed the
lead of the dynamic of the group. Figures 6 and 7 show the process of each group compared to the process experienced by the reflective supervisor. The three major components of reflective practice are regularity, maintaining the time and consistency of the group, collaboration, respectful and mutual discussions where teachers feel safe to share, and reflection which can be reached once trust is established. Once the frame was set teachers were guided to awaken their awareness of their thoughts and feelings, and then explore those feelings and how they impact their work. For the groups trust was established toward the end of the eight sessions to where teachers could begin understand what it meant to reflect on what was learned and then apply it to work. Teachers felt supported and as if they weren’t alone because of the groups. They shared many similar challenges and the drive for the implementation of reflective practice was to build teacher’s abilities to cope with potential stressors through a collaborative group and work toward decreasing their perceptions of work related stressors. What is important to take from the processes both groups experienced was that there were positive effects on perceptions of work related stress, confidence in preventive coping resources, and the ability to self-reflect and use insight.

**SUMMARY AND CONCLUSIONS**

Early child care education is an extremely stressful profession (Demerouti et al., 2001; Kelly & Berthelsen, 1995; McGrath & Huntington, 2007; O’Donnell et al., 2008; Zhai et al., 2011). Results of the current study support this research. Teachers were found to be experiencing high levels of stress to where a majority of the teachers reported that the classroom demands, such as administrative demands and challenging child behaviors, were greater than the classroom resources available, therefore indicating symptoms of stress (Lambert et al., 2009). Reflective practice groups were implemented to have a positive influence on teacher perceptions of work related stressors, and after examining the processes of the reflective practice groups, teacher’s accounts of stress decreased and by the last session a few teachers described feeling less stressed.

Not only were the reflective practice groups implemented to decrease stress but to also increase positive coping resources. Teachers’ utilized social resourcefulness and scanning as the two most frequent strategies (McCarthy et al., 2009). The reflective groups provided a social network for teachers, to where they felt “like a team”, and “as if they’re not
alone”. The groups also encouraged teachers to “be aware” thoughts and feelings, and to “recognize situations” that cause emotions to emerge and to create next steps. The result is that teachers potentially have the skills to appraise presented challenges with confidence in their abilities to overcome them, as described in the transactional model of stress and coping (Lazarus & Folkman, 1984; McCarthy et al., 2009; O’Donnell et al., 2008).

Lastly reflective practice had positive effects on the influence of reflection practice skills (Larrieu & Dickson, 2009). Teachers began to understand the need for self-reflection while being guided by the reflective supervisor in the process. As the teachers grew in their reflective capacity so did the reflective supervisor. This study attempted to utilize reflective practice to broaden research for active interventions for coping with work related stressors in early child care. In sum, the groups had positive affects on teachers’ perceptions of work related stressors, their abilities to cope, and their reflective capacity. These results, may not be significant however there are implications for future research to be done using reflective practice as a preventive coping resource in early child care centers.

**Recommendations**

The results show promise for directions of future research in early childcare interventions for preventing and decreasing stress. Further research should involve a larger sample size to allow for more stringent statistical tests. Nevertheless, the proposed study shows a pattern that reflective practice can potentially have a promised effect on teacher perceptions of work related stressors by increasing their insightfulness and coping resources. Future research should be done to examine the development of insightfulness through reflective practice and how it can improve teacher-child relationships, most importantly, if reflective practice is indeed an effective tool for improving the relationships. Future research should examine these effects over a longer period of time to fully assess the shift toward reflection and insight in the early childcare field. Furthermore, research should focus on examining caregiver sensitivity through different measures or observations. This study shows that sensitivity can be negatively affected by stressful symptoms in the work place and that sensitivity is critical to positive teacher-child relationships in the classroom. Lastly, reflective practice should be implemented in different settings and populations in order to generalize the results.
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