

# UC Riverside

## UCR Honors Capstones 2016-2017

### Title

Parent-Child Emotion Regulation Processes: How Does Self-Regulation Relate to Dyadic Conflict During a Frustrating Task?

### Permalink

<https://escholarship.org/uc/item/2jx8089n>

### Author

Gonzalez-Lopez, Jessica

### Publication Date

2017-12-08

PARENT-CHILD EMOTION REGULATION PROCESSES:  
HOW DOES SELF-REGULATION RELATE TO DYADIC CONFLICT DURING A  
FRUSTRATING TASK?

By

Jessica Gonzalez-Lopez

A capstone project submitted for  
Graduation with University Honors

May 11, 2017

University Honors  
University of California, Riverside

APPROVED

---

Dr. Elizabeth L. Davis  
Department of Psychology

---

Dr. Richard Cardullo, Howard H Hays Jr. Chair and Faculty Director, University Honors  
Interim Vice Provost, Undergraduate Education

## Table of Contents

Abstract.....	ii
Acknowledgements.....	iii
Introduction.....	1
Methods.....	12
Results.....	22
Discussion.....	27
References.....	33
Appendices.....	38

## **Acknowledgements**

I thank Dr. Elizabeth L. Davis for her assistance with developing and executing this research project and her comments that greatly improved the manuscript (...)

## Abstract

This paper examines the individual emotion regulation (ER) processes of parents and children and whether these relate to parent-child interactions during a frustrating challenge task. A total of 184 parent-child dyads (91 boys, 93 girls) were included in the study. Parent-child dyads were instructed to work on a frustrating challenge task for ten minutes, and the interpersonal conflict between the two was measured using a dyadic behavioral coding scheme that was created for this project. The *Emotion Regulation Checklist*, *Difficulty with Emotion Regulation Scale*, and *Coping with Children's Negative Emotions Scale* questionnaire measures were completed by parents and used to assess children's emotion regulation, parents' emotion regulation, and parents' non-supportive reactions to children's negative emotions, respectively. The study had three primary hypotheses: 1) Healthy ER processes (better child and parent ER functioning) would be associated with less dyadic conflict, 2) mismatched parent-child ER processes (only one person showing healthy ER) would be associated with greater conflict, and 3) parents' non-supportive reactions to children's negative emotions would be associated with greater dyadic conflict. Results supported hypotheses that individual ER processes predicted dyadic conflict and that parents' non-supportive reactions to children's negative emotions were associated with dyadic conflict, among preschool and kindergarten-aged younger children. Associations between ER processes and conflict were not found for older children. Implications for the understanding of parents' and children's emotion regulation, and future directions are discussed.

## **Parent-Child Emotion Regulation Processes:**

### **How Does Self-Regulation Relate to Dyadic Conflict During a Frustrating Task?**

Effective emotion regulation (ER) in childhood includes the healthy adoption of appropriate and adaptive ER strategies in social contexts, and this has been linked to improved academic skills and better wellbeing in adulthood (Davis & Levine, 2013; Urry & Gross, 2010). Children in part are socialized to regulate emotions through interactions with their parents (e.g., own expression of emotions, talking about appropriate emotions, discussing their child's negative emotions) (Eisenberg, Cumberland, & Spinrad, 1998). Thus, the quality of the parent-child relationship is important as it affects children's developing ER processes. During childhood, there are distinct cognitive changes that children undergo from early childhood, to middle childhood, and into adolescence (Feinstein & Bynner, 2004), and these enable greater sophistication in ER. As children mature, they begin to understand new concepts and the reasons behind them and are better able to regulate unwanted emotions with increasing age (Southam-Gerow & Kendall, 2002; Zeman, Cassano, Perry-Parrish, & Stegall, 2006).

There are numerous factors that can influence the development of social skills. In part, ER is a result of the interaction between the environment and biology. As such, the interplay of nature and nurture has shown that individuals with genetic or biological vulnerabilities can still flourish in developing healthy ER if they learn or are taught how to appropriately regulate emotions in social situations (Kochanska et. al, 2009). Although research in ER processes has examined many related questions already, there is a gap in knowledge about how healthy, unhealthy, and mismatched parent-child ER abilities might influence the developmental consequences of this social relationship

(Lunkenheimer et. al, 2011). The development of the parent-child relationship sets the stage for how children build other relationships across development (Lunkenheimer et. al, 2011). The goal of this Capstone project was thus to examine ER processes within the context of one of the most important social relationships in a child's life—the parent-child relationship. Specifically, I aimed to answer the question: How do parents' and children's ER processes affect their interpersonal interaction during an emotionally challenging task?

### **Emotion Regulation**

ER is the set of processes used to extrinsically and intrinsically monitor, evaluate, and modify an activated emotion as a means of obtaining a desired goal (Cole, Martin, & Dennis, 2004; Gross 1998; Thompson, 2011). The process model of ER, introduced by James Gross, is a theoretical approach that illustrates that emotion can be regulated at different stages as an emotional experience unfolds (in other words, ER is a *process* more than an outcome). The process model is made up of the following components: Situation Selection (people pick situations and experiences they will have or avoid), Situation Modification (people modify the situation to align with goals), Attentional Deployment (people choose what to focus on in the situation), Cognitive Change (people change how they think about the situation), and Response Modulation (people change their behaviors). Gross argues that there are two main ways to regulate emotion, and these primarily have to do with *when* in an emotional experience a strategy is deployed. An antecedent-focused response (e.g., cognitive reappraisal) is when someone changes the way they think about a particular situation before the behavioral response is expressed. Response-focused emotional (i.e. suppressing or hiding one's emotions) responses, in

contrast, involve modifying behaviors in response to our emotions (Gross, 2001). Adopting a maladaptive (i.e., suppression) ER strategy is related to higher levels of anxiety, fear, and potential development of psychopathology (Buss, 2011; Aldao, Hoeksema, & Schweizer, 2010). This conceptual model of ER thus helps clarify the theoretical consequences each type of ER strategy has for people's experience and regulation of emotion.

**Parents' emotion regulation.** Research on ER processes has suggested that adults continue to change and develop throughout their lifespan (Diamond & Aspinwall, 2003). As new experiences and new contextual factors are introduced, there is a change in how adults regulate emotions. Research on emerging adults has shown that young adults reported greater difficulty in regulating emotions, understanding their emotions, and were more likely to believe that there are not many options to regulating emotions effectively while in distress when compared to older adults (Orgeta, 2009). Young adults have similar ER processes to adolescents and as such they are considered to be a part of a prolonged adolescence stage (Zimmerman & Iwanski, 2014). Like adolescents, young adults who reported higher levels of ER dysregulation had higher scores on impulsivity (Schreiber, Grant, & O'dlaug, 2012). Emerging adults are perceived to undergo prolonged emotional insecurity due to their role status and the challenging new developmental experiences they face. Once young adults obtained stable relationships their individual and social ER is more stable in comparison to adolescents (Zimmerman & Iwanski, 2014). Despite their similar ER processes, young adults showed that they had an increase in recognizing and understanding their own and others feelings, and insight into their own



emotion behaviors in comparison to adolescents (Zimmerman & Iwanski, 2014). These findings suggest that ER skills improve as age increases.

Moreover, when young adults are compared to middle-aged adults significant differences are noted. For instance, when young adults experienced high levels of emotionally charged stressors they were more likely to use passive ER strategies compared to middle-aged adults; however, when young adults encountered less emotionally charged situations they adopted a problem-focused mentality in which they wanted to fix their problems (Blanchard-Field & Coats, 2008). Middle-aged adults reported less negative affect than young adults and used more proactive ER strategies when undergoing emotionally challenging stressors (Orgeta, 2009; Blanchard-Fields, Stein, & Watson, 2004). In comparison to young adults, middle-aged adults were able to adapt their ER strategies accordingly when needed to emotion regulate (Zimmerman & Iwanski, 2014). Typically, middle-aged adults are entering a phase where they are establishing a career and family. These individuals tend to have responsibilities that differ from younger adults and older adults which involves them to be more engaged in maintaining their family thus potentially explaining their proactive ER strategies (Blanchard-Fields, Stein, & Watson, 2004).

Throughout the lifespan, emotions and ER processes tend to improve and people tend to develop sophisticated ER skills. For instance, older adults tend to have better emotional control and are more mature when altering their emotions (Gross & John, 2002; Yeung, Wong, & Lok, 2011). The increase in life experience and the wisdom gained from these experiences allows adults to make use of healthier ER strategies (Gross & Thompson, 2007). The use of healthy ER skills has shown that older people experience

greater stability in positive affect in comparison to younger adults (Yeung et. al, 2011). In addition, adults tend to become more selective of their friends, experiences, and interactions with others through time. Middle-aged adults have reported as having a better sense of control of their lives (Blanchard-Fields et. al, 2004). This suggests that this may be a precursor to how older adults are better at predicting how they would react in particular social contexts, and refraining from entering social situations that would make them feel uneasy (Urry & Gross, 2010). On the other hand, adults who use maladaptive regulation strategies tend to elicit negative emotions and are at higher risk of developing physical illnesses and psychopathological problems (i.e., depression, anxiety) (Urry & Gross, 2010). Thus, the majority of research with adults has documented a pattern of change in the types of strategies and skills adults have, but has largely relied on adults' self-reports of these abilities. The methods used with adults are much different than those commonly used in studies of children's ER skills and abilities. Specifically, the developmental constraints on asking children to express their thoughts, feelings, and past experiences make it difficult to create a holistic picture of their ER abilities using just self-report information.

**Children's emotion regulation.** The majority of ER research in very early childhood is focused on how temperament—stable differences in behavior rooted in biology-- and attachment styles between mothers and infants relate to ER. Temperament is often seen as a profile of intrinsic characteristics of an individual's emotional reactivity. This can be seen as the individual differences in reactivity to a novel or distressing stimulus (Rothbart, 1988). In other words, temperament is thought to govern the types of physical movements (backing away from something unusual; seeking

closeness to a trusted parent) and attention (looking away from something distressing) to a stimulus that are foundational components of negative emotional reactivity in infancy and toddlerhood. As developmental theorists have discovered, infants are active participants in their behaviors and shape their own development (Stifter, Spinrad, & Braungart-Rieker, 1999). Variations in infants' temperament indicate individual differences in the range of emotion arousal and self-regulation that is possible. This in turn creates opportunities for infants to engage differently with similar social circumstances (Dumas, Serketich, & LaFreniere, 1995).

From infancy, parents are influencing the development of their child's ER and social behavior (Stifter et. al, 1999). For instance, every day infants experience various frustrating events such as waiting for food or waiting for their diaper to be changed. These events provide the opportunities for an infant to develop and learn ER skills (Stifter et. al, 1999). In addition, temperament may lead children to favor certain ER strategies over others (Davis & Levine, 2013). Furthermore, a parent may shape certain situations to encourage emotional control, thus influencing their natural development of ER abilities (Stifter et. al, 1999). Infants with difficult temperaments (e.g., who cry easily or are fussy) may induce negative reactions and affect from their caregiver. As a result, the caregiver must exert more effort and support to calm their child. Over time these parents may respond negatively or submissively to their child's distress (Webster-Stratton & Eyberg, 1982). Research on infants who are characterized with an easy temperament, however, has shown that parents respond in a positive manner and demonstrate higher levels of acceptance, openness, and involvement in their child's development (Kornienko, 2016). The research above suggests that the interactions

between parent and child in the first years of a child's life may influence ER development through bidirectional interactions in parent-child relationships.

In childhood, children undergo many developmental changes that influence their ER. Research has shown that children younger than seven years of age have difficulties coping with everyday uncontrollable stressors (Altshuler & Ruble, 1989). Thus, younger children may not be fully aware of their own emotions or that they can manipulate their mental states to suit their emotional goals. As a result, younger children have trouble employing certain ER strategies, like thinking about something else, but are skilled at using motor distraction (i.e. looking away from the stimuli). In addition, a study showed that 8 year olds are more likely to seek emotional support from parents or peers than 12 year olds, suggesting that as children age, they are more skilled in regulating emotions without assistance from others (Salovey & Sluyter, 1997).

As children grow older, there are significant changes in ER skills. Older children use more internal ER strategies (i.e. strategies that serve to allow the child to adapt and manage their emotions regarding the problem), whereas the use of external ER strategies (i.e. strategies that serve to change the problem itself) remains constant (Salovey & Sluyter, 1997). Older children have an easier time employing cognitive ER strategies (i.e. not thinking about the stimuli) and correctly identifying negative emotions and talking about them (Altshuler & Ruble, 1989; Salovey & Sluyter, 1997). As older children begin to engage in more internal ER strategies, they become better able to regulate their emotions without assistance from peers or parents. Thus, even within childhood, substantial gains in ER ability after age 8 suggest that younger children may be more susceptible to the nature and quality of parental input about emotions and ER.

**Parent-child social dynamics.** Different types of temperament have been associated with different outcomes of attachment—the first relationship that is formed between an infant and their caregiver that predict the child’s ability to develop future quality relationships. Literature reviewed on attachment and ER development suggests that parental sensitivity influences a child’s ability to develop ER skills (Cassidy, 1994). For instance, a securely attached infant is flexible in adapting to positive and negative emotions and experiences, in comparison to infants who have developed an insecure attachment. Those with insecure/avoidant attachment styles sometimes minimize their displays of negative affect to avoid rejection from their caregiver. In contrast, infants with an insecure/ambivalent attachment style often maximize their displays of negative affect to gain attention from their caregiver.

Attachment styles help foster an understanding and desire to maintain a relationship between the parent and child, which in turn promotes the infant’s ER skills (Cassidy, 1994). As previously noted, parental sensitivity and responsiveness influence the reactions and behaviors that an infant exhibits. Thus, a parent’s sensitivity affects the infant’s perception and reaction to their parent’s behavior (Shipman & Zeman, 2001). Particularly when children expect a supportive response to their emotional expressions from their parents, they are more likely to express emotions. If a child expects a non-supportive (negative) response in reaction to their emotions however, they are more likely to avoid displaying emotion (Shipman & Zeman, 2001). Similarly, parental sensitivity is influenced by their child’s behavior and temperament. Thus, a parent who perceives their child negatively will elicit and direct negative affect toward their child (Webster-Stratton & Eyeberg, 1982; Southam-Gerow & Kendall, 2012).

Children develop their ER skills in part via interactions with other people, a process known as socialization. Parents teach their children social skills through modeling of ER strategies, reacting to specific emotions, discussing emotions with their child, and expressing their own emotions (Southam-Gerow & Kendall, 2012). If children develop ER processes through social relationships, then what influence do maladaptive parental ER processes have on children's development of healthy ER? Many researchers examine these potential outcomes in clinical samples. For example, Shipman and colleagues (2001) compared maltreated and non-maltreated children (ages 6-12) on the quality of their relationships with their parents; they found that maltreating mothers displayed difficulty in generating healthy coping strategies and difficulty in understanding their child's emotional reactions (Shipman & Zeman, 2001). Children whose mothers have depressive symptoms typically showed signs of increased vulnerability and low peer acceptance, which suggests potentially maladaptive ER processes (Kam et. al, 2011). Essentially, conflict is fostered between the parent and the child when there is at least one opposing ER behavior. For instance, research shows that aggressive children express coercive behaviors toward their mother and in response the mother failed to oppose the child's behavior and reinforced it through her positive emotions, whereas anxious children were resistant to their mother's coercive and unresponsive behavior (Dumas et. al, 1995). The previous examples suggest that divergent ER processes may influence conflict between parent-child relationships; as such this discordance potentially can influence the development of future maladaptive ER processes.

To summarize, current literature in ER has shown that children develop ER processes through social interactions specifically suggesting that parents are one of the main relationships that influence this continuous developmental process. Furthermore, children are active participants in their own development, seeking new experiences to enhance their ER skills. In addition, parents' maladaptive ER processes are related to dysregulated ER processes in their children. Despite important insights from this previous research, no study has examined how parent and child ER processes separately and jointly influence the interpersonal parent-child interactions during an active frustrating challenge task. This question is the focus of this Capstone paper.

### **The Current Study**

The current study investigates ER processes within the context of parent-child relationships. There were two goals. The first was to determine if dysregulated or divergent (mismatched) child and parent ER processes were associated with dyadic conflict. The second was to identify if parents' non-supportive reactions to children's negative emotions (a form of emotion socialization) were related to parent-child conflict.

Children between the ages 3 to 11 took part in a larger study of socioemotional development. In one particular laboratory challenge, parent and child participated in a task that was designed to frustrate and evoke conflict between them. The dyads participated in two 5-minute segments. The first segment required the parent to help minimally or not at all while the child worked on constructing a tower with building blocks. The construction of the tower was designed to be too difficult for children this age (a Lego Architecture set rated as appropriate for ages 12+) and without the help of a parent. This procedure reliably evoked frustration and, in some cases, conflict between

the members of the dyad. In the second 5-minute segment, parents and children were instructed to work on the task together with as much help as the parent desired to give. This particular order of events allowed for observational data on how parent-child dyads worked through the conflict that arose from the structured frustration task. The video footage was globally coded to identify dyadic conflict behaviors. The following hypotheses were advanced to guide the project:

- 1) Healthy ER processes will be associated with less dyadic conflict.
  - a. Parents' effective ER will relate to less dyadic conflict.
  - b. Children's effective ER will relate to less dyadic conflict.
- 2) Mismatched parent-child ER processes will be associated with greater conflict.
  - a. Dyads characterized by a parent with effective ER and a child with maladaptive ER will have higher dyadic conflict.
  - b. Dyads characterized by a child with effective ER and a parent with maladaptive ER will have higher dyadic conflict.
- 3) Parents' reactions to children's negative emotions will be associated with dyadic conflict.
  - a. Supportive parental reactions will correlate with lower dyadic conflict.
  - b. Non-supportive parental reactions will correlate with higher dyadic conflict.



## Methods

### Participants

Participants were recruited from communities in the Riverside County area of Southern California between 2013 and 2015. Children ( $N = 184$ ; 91 boys, 93 girls) between the ages 3 to 11 ( $M = 7.21$  years,  $SD = 2.298$  years) and their parents were recruited to participate individually in a larger study investigating ER. Parents reported child ethnicities, 18.2% Caucasian, 10.7% African American, 29.4% Hispanic, 2.1% Asian American, 4% Other, and 66% Mixed Ethnicity. Parent ethnicity was reported as 28.3% Caucasian, 10.2% African American, 35.3% Hispanic, 2.7% Asian American, .5% American Indian, and 3.7% other and 11.8% Mixed Ethnicity. Participating parents were asked to report their highest level of education ranging from completion of Grade School to earning a Doctoral Degree. Briefly, 8.3% of parents did not complete high school, 31.5% were high school graduates, and 60.2% of parents had a degree in higher education. Financial income was reported using category ranges from \$15,000 and below to above \$100,000. Parent reports of income showed that 63% of parents reported annual incomes below \$50,000 and 37% reported more than \$50,000. The total sample consisted of 184 dyads, but several dyads had incomplete data (e.g., missing parent report on a given measure), or did not participate in the laboratory challenge, and these dyads were excluded from analyses. The total number of dyads with complete data was 170, but analyses make use of all participants with usable data so sample size varies.

### Procedure

The University of California, Riverside Institutional Review Board approved all procedures in the study. Parents consented to their children's participation, and children

gave assent. Each participant and their parent were compensated for their time; children received a small age-appropriate prize, and parents were compensated for their time.

**Surveys.** Parents were instructed to complete a questionnaire packet that included measures related to child's behavior, general ER, ER strategy use, child psychopathology, as well as information regarding parents' behavior and ER processes (described below).

**Dyadic frustration task.** The laboratory challenge was designed to elicit frustration and conflict between the parent-child dyad. Participants were told that they would engage in a challenge that required them to cooperate in order to complete the challenge and win a special prize. To evoke frustration and conflict, the challenge used a complex Lego model replica of Big Ben that was too difficult for the age group in the study. The challenge consisted of two timed segments of five minutes each.

The first segment required that the child worked alone with limited assistance from their parent. Parents were instructed to help as little as possible, and to only provide verbal instructions, without touching or gesturing to the pieces, and without showing the picture instructions to their child. During the initial segment, participants were instructed by the lead experimenter, "*We want to see how fast you can put together the Lego structure by yourself. If you can complete the puzzle in five minutes, you will receive a special prize! But, if you can't build it in time, we'll just move on to the next game. I'll be back in a little bit.*" The lead experimenter handed the parent a black and white copy of picture instructions. The instructions were photocopied in black and white to evoke frustration for the parent because it was difficult to understand the instructions (e.g., find the correct block based on color). The design of this first segment created limitations in

their ability to cooperate with each other, which evoked frustration in both parent and child.

After five minutes, the experimenter entered the lab room and exclaimed, “*Time’s up! Oh no—you didn’t finish?! That’s okay, I’ll give you another five minutes! This time, mom/dad can help you out. I’ll be back in a little bit.*” This initiated the second segment of the challenge, in which the parent-child dyads could work together to complete building the structure. Parents were instructed to help their child however they felt appropriate. The second segment was designed to see how the evoked conflict from the first segment influenced the dyad’s ability to cooperate. It was expected that that parent and children would either have a reduced or increased level of frustration by the end of the task. This segment ended when the lead experimenter returned to the lab room and said, “*Oh no, you didn’t finish building Big Ben? That’s okay, no one is ever able to finish putting that all together! You did a great job though and have earned a special prize, which we’ll give you in just a little bit!*” This final comment typically reduced the participants’ frustration.

### **Stimuli and Measures**

**Behavioral coding.** Two trained research assistants created a dyadic conflict-coding scheme based on observed parent-child interactions during the frustrating task in this study. To develop the scheme, the research assistant team watched video recordings of the frustration task and identified behaviors that corresponded to different levels of conflict. The levels were created based on real examples observed throughout the sample. Therefore, all the levels indicate actual behaviors that were typically observed during this task. The ordinal coding scale had five levels of increasing conflict intensity. This

behavioral coding is different in comparison to other dyadic coding schemes and is novel in its approach. The behavioral coding was designed to capture the overall conflict level between the parent and the child (at the level of the dyad) instead of each individual's negativity. The purpose of this approach was to globally characterize the bidirectional influence of conflict and its related behaviors in the parent-child dyads.

Once the behavior coding scale was created, the research team trained to reliably identify the criteria found in each conflict level and assign codes to the dyads. After training was completed, and a reliability of 90% agreement was reached, the raters independently coded the videos using the Conflict scale. Raters were tested for drift reliability throughout the process of coding.

The coding scheme used a global scale that reflected different levels of conflict on a scale from 1 to 5 (1=No conflict/Very little Conflict, 2=Slight Conflict, 3=Moderate Conflict, 4= High Conflict and 5=Very High Conflict.) An example of a 1 on conflict would be where at least one of the participants talks to their partner in a demanding tone "Help me now!" or at least one of the participants expressed minimal frustration as a result of the other person's lack of effort (Frustration was determined through negative statements about the task, body movements, and negative facial expressions). A dyad receiving a level 2 code usually exhibited the similar behaviors found in level 1 and typically had the parent forcefully take over a task. This caused frustration in the child since he/she could not help. Moderate conflict levels (level 3), typically experienced frustration expressed verbally and physically from both parent and child. As well as, moderate levels of communication with each other, distance, and lack of interest in task. In level 4, High conflict, dyads experienced high levels of restlessness, worriedness,

frustration, and anxiety, frequent expressions of pessimistic statements about the task, and possibly one member of the dyad giving up on the task. Lastly, in addition to the behaviors previously mentioned in lower levels of conflict, Very High Conflict dyads typically had no communication, parents excessively ignored children's pessimistic statements, parents laughed excessively at children's frustration, and/or high levels of sarcasm were displayed. Dyads received a single global "impression" score for conflict (Table 1).

The following are actual examples of three of the conflict levels, illustrating the importance of coding for the combined conflict level.

***Level 1: no conflict/very little conflict.*** A typical level one received this score because the dyad usually exhibited no conflict despite the intentional limitations incorporated in the task design. In one dyad, a father and a son were seen to cooperate during both segments. In the first segment, the son displayed excitement, high interest in completing the challenge, and eagerness to do well. The son made comments such as, "I'm so going to win." Immediately following these comments, the father agreed with his son and encouraged him to do well "Yeah, son you can do it! Just try your best." Despite the experimenter's instructions to help only minimally in the task, the father provided assistance by providing his son detailed instructions describing the procedure of building the structure. Additionally, the father was able to provide a different type of assistance—emotional support. The constant support and awareness of the son's emotions and behaviors allowed the father to adequately provide the son with the appropriate reactions that further encouraged his son and reduced any negative reactions to the challenge.

Typically, Level 1 dyads exhibited behavior similar to the example above; however, this next example illustrates and stresses the importance of coding for conflict at the level of the *dyad* rather than individuals. At the beginning of the first segment during the experimenter's instructions, the daughter is excited about the challenge, but the mom expresses her negative opinions about the task, "This is impossible," and the daughter looks up, frowns, and stares at her. As they work on it, the mom tries to instruct her daughter and while laughing she says, "Psssh, she's tripping. 5 minutes. Yeah right!" At first, the daughter stays quiet but after her mom repeats her negative statements about the difficulty of the task, the daughter starts to laugh with her mom about the task. Later on in the video, the daughter laughs and says, "Mom, she's tripping. Go ahead mom tell her she's tripping." The daughter and the mom look at the camera and the mom says, "You're tripping." They laugh. Although the behaviors witnessed in this dyad are negative, the behaviors that each individual expressed did not evoke anger, frustration, or any other negative feelings toward one another; therefore, these behaviors were not considered to be conflict as it was operationally defined for this study. Essentially, the dyad did not have conflict because they bonded over their dislike of the task. The dyad had similar behaviors and negative expressions.

***Level 3: moderate conflict.*** A level three dyad would exhibit moderate conflict between them. After the experimenter leaves the room during the first segment, the mother expresses her disbelief that her daughter can finish the task in time. She then tries to help her daughter by touching the pieces; this makes her daughter uneasy because she knows that the rules are that her mom cannot touch the pieces. The daughter asks her mom to stop, and in response her mom replies, "Well if you don't want my help, then

follow directions.” However, the mother was not providing easy to follow instructions, which the daughter asks her to constantly clarify. Instead of the mom listening to her daughter’s comments. The mom continues to focus on her own needs. Throughout the video the dyad continues to experience frustration as the mom wants to help her daughter by building it herself, but the daughter becomes frustrated since she does not want to cheat. The mom continues to ask her daughter questions about her ability to help and as a result the daughter displays frustration through her body movements and facial expressions. Her body tenses up, she frowns, and glares at her mom when she tries to cheat for her. Typically, level three dyads experienced conflict due to the different goals each individual had which ultimately frustrated each other.

***Level 5: very high conflict.*** Level 5 dyads experienced excessive conflicting behaviors. For instance, a mother-son dyad during the second segment of the task consistently tried to force the structure base or the instructions out of each other’s hands. At the start of this segment, the child expresses how sad and anxious he is that he cannot finish the task. In response, the mom ignores his comments, does not look at him, and tries to build the structure. The child continues to tell his mom how he feels about the task as he looks up at her to see if he can get a response from her. With no success, he becomes more distraught and starts to yell at her “MOM! LISTEN TO ME!” He repeats this multiple times and his mom ignores him. Instead, the mom complains about the difficulty of the task and expresses her frustration toward the task, “GEEZ, isn’t there something else we can make? This is stupid.” As a result, the child gives up on the task and the mom does not try to engage him in working on the task. Throughout, the parent expresses her pessimistic statements about the challenge and the child tries to get her

attention by trying to take things away from her and raising his voice at her. For more examples for each coding level, please refer to Table 1.

**Children's emotion regulation.** The *Emotion Regulation Checklist* (ERC; Shields & Cicchetti, 1997) contains 24 items assessing the child's ER (8 items) and emotional reactivity (Lability/Negativity; 15 items). The measure included statements like "*Is a cheerful child*" or "*Takes pleasure in distress of others (laughs when another person gets hurt or punished; seems to enjoy teasing others).*" Parents were asked to rate on a 4-point Likert-type scale (*1=rarely/never like this child, 4=almost always like this child*) to identify how similar their child is to the statements. Higher scores on the general ER scale indicate greater flexibility in regulating emotions appropriately. Higher scores on the Lability/Negativity scale indicate higher dysfunction and inflexibility in regulating emotions (Molina et al., 2014). Cronbach's alpha for Lability/Negativity (.96) and ER (.83) were good for this sample.

**Parents' emotion regulation.** The *Difficulty in Emotion Regulation Scale* (DERS; Gratz & Roemer, 2004) questionnaire asked parents to indicate how often the statements applied to themselves, with a total of 36 items such as, "*When I'm upset, I become angry with myself for feeling that way*" or "*I experience my emotions as overwhelming and out of control.*" The questionnaire reported on general parent emotion dysregulation and was rated on a scale of 1 to 5 (*1=almost never, 3=about half the time, and 5=almost always*). Items were reverse-scored and a total score was given on six subscales: Non-acceptance of Emotional Responses, Difficulties in Engaging in Goal-Directed, Impulse Control Difficulties, Lack of Emotional Awareness, Limited Access to ER Strategies, and Lack of Emotional Clarity. Higher scores indicated higher levels of



emotional dysfunction. The scale has six subscales (alpha coefficients are in parenthesis) that include Nonacceptance (.85), Goals (.89), Impulse (.86), Awareness (.80), Strategies (.80), and Clarity (.84).

**Parental reactions to children's negative emotions.** The *Coping with Children's Negative Emotions Scale* (CCNES; Fabes, Poulin, Eisenberg & Madden-Derdich, 2002) is a 12-item measure assessing parents' reactions to children's negative emotions on a scale of 1 to 7 (*1=Very Unlikely, and 7=Very Likely*). Items described vignettes of different experiences a child may exhibit throughout a normal day such as "*If my child falls off his/her bike and breaks it, and then gets upset and cries I would,*" or "*If my child is at a park and appears on the verge of tears because the other children are mean to him/her and won't let him/her play with them I would.*" After each vignette, six different possible reactions are listed and parents are asked to rate the likelihood that they would react in that way. The scale has six subscales (alpha coefficients are in parentheses) that include Distress (.70), Minimizing (.78), Punitive (.60), Emotion-Focused (.80), Problem-Focused (.78), and Emotion Encouragement (.85). The subscales are then further divided into supportive (Emotion-Focused, Problem-Focused, and Emotion Encouragement) and non-supportive (Distress, Minimizing, Punitive) reactions to negative emotions.

To illustrate the different possible reactions a parent can experience characterized by the different subscales the following examples will use the same vignette to allow for comparison between reactions. One vignette used in the scale is, "If my child is afraid of injections and becomes quite shaky and teary while waiting for his/her turn to get a shot, I would..." Each subscale describes a different type of response to the vignette

referenced above. Distress is the degree to which parents experienced distress when their child expressed negative emotions, a distress response is “I would tell him/her not to embarrass us by crying.” Minimizing is the extent to which parents try to downplay the seriousness of the situation or undervalue the child’s distress, problem or negative affect. A parent using expressing this reaction would say, “I would tell my child not to make a big deal of the shot.” Punitive reactions are the extent to which parents respond to with reactions that inflict punishment in order to decrease their exposure or need to deal with their child’s negative emotions. For instance, a parent expressing this type of reaction would say the following “I would tell him/her to shape up or s/he won’t be allowed to do something s/he likes to do (such as watch TV).”

Next, an Emotion-Focused response (EFR) is the extent to which a parent provides strategies that are designed to help the child cope and feel better about the situation. In this vignette, a parent using EFR would say, ““I would comfort him/her before and after the shot.” A Problem-Focused response (PFR) is the extent to which a parent helps their child solve the problem that is causing them distress. This response would be, “I would talk to my child about ways to make it hurt less (such as relaxing so it won’t hurt or taking deep breaths.” Lastly, an Emotion-Encouragement reaction (EER) is the extent that a parent encourages children to express negative affect or the extent to which they validate their child’s negative emotions. In reference to the previous vignette, a parent expressing an EER would strongly endorse the response, “I would encourage my child to talk about his or her fears.”

## Results

### *Overview*

The results are organized into four sections. The first section reports preliminary analyses of potential bivariate correlations and gender differences. The second section examines the effects of emotional dysregulation of each member of the dyad by considering the parent and child at the individual level (the potential influence of each individual's dysregulation on dyadic conflict). The third section examines the effects of mismatched parent-child ER capabilities in predicting dyadic conflict. The final section assesses the relation between parental reactions to children's negative emotions and dyadic conflict.

### *Preliminary Analyses*

Table 2 presents descriptive statistics and Table 3 contains bivariate correlations among study variables. Initial bivariate correlations between study variables showed no significant associations, when looking at the sample as a whole. Boys ( $M = 1.86$ ,  $SD = .51$ ) and girls ( $M = 1.68$ ,  $SD = .37$ ) did not differ significantly on levels of emotion dysregulation,  $t(1) = -.86$ ,  $p = .39$ . A gender independent-t test was conducted to examine the possibility that children's gender would be associated with dyadic conflict, and this was not significant, Phase 1,  $t(1) = -.644$ ,  $p = .52$ ; Phase 2,  $t(1) = -1.22$ ,  $p = .22$ . Given that gender was not a primary focus of this study, the variable was not included in future analyses. Previous research has suggested that younger children (below 8 years of age) are unaware that they can change and adapt their thinking to emotion regulate effectively. They are less likely to understand and identify their negative emotions and are more likely to recruit external support (e.g., adults) to help them regulate emotion.

Older children (8 year olds and up), employ more internal strategies, better understand the emotions of others, can correctly identify their negative emotions and talk about them. Based on these differences in ER, children were divided into two age groups for analyses: younger children, 3-7 years of age, and older children, 8-11 years of age.

#### *Individual Dysregulated Emotion Regulation Processes and Dyadic Conflict*

To assess individual differences in dysregulated ER processes, I examined parent and child ER processes using the ERC Lability (children) and the DERS scale (parents). The hypothesis was that healthy individual ER processes (less lability, less difficulty with emotion regulation) would be associated with less dyadic conflict. Specifically, I examined whether these dysregulation measures correlated with dyadic conflict in Phase 1 or Phase 2 of the frustration task. Previous literature has shown that children undergo many cognitive and physical changes throughout childhood (Pons, Harris, & De Rosnay, 2004). Bivariate correlations were conducted separately within each age group (Table 4 shows correlations for younger children, Table 5 shows correlations for older children). Younger children's lability (emotional dysregulation) and dyadic conflict were significantly correlated in Phases 1,  $r = .28, p < .01$ , and 2,  $r = .40, p < .01$  of the frustration task in the expected direction. Thus, as younger children expressed higher levels of emotional reactivity and dysregulation, greater conflict was observed between the members of the parent-child dyad.

Parental emotion dysregulation among parents of younger children showed a similar relation, such that parent dysregulation and dyadic conflict were significantly correlated in both Phases 1,  $r = .24, p < .05$ , and 2,  $r = .30, p < .01$ . This signifies that when parents had greater emotion dysregulation, higher levels of conflict were observed

in the dyad. These findings support my hypothesis that at the individual level parents' and younger children's ER processes relate to the amount of dyadic conflict expressed.

Unlike the younger children, there were no association between children's emotional dysregulation and dyadic conflict for the older children (Phase 1,  $r = .09$ ,  $p = .42$ ; Phase 2,  $r = .14$ ,  $p = .21$ ). Parental emotion dysregulation also did not have a significant correlation with conflict in either of the phases (Phase 1,  $r = -.11$ ,  $p = .35$ ; Phase 2,  $r = -.14$ ;  $p = .23$ ), for dyads with older children.

#### *Mismatched Emotion Regulation Processes and Dyadic Conflict*

To assess whether mismatched ER processes predicted higher levels of dyadic conflict, a regression analysis was conducted. First, variables included in the model were standardized to allow easier comparison of children's and parents' dysregulated ER processes across different scales of measurement. The first step in the regression model was to enter the standardized z-scores of child lability and parent dysregulation. The second step in the regression model was to enter the interaction between the two dysregulation z-scores. Separate regression models examined the two phases of the frustration task and two child age groups, resulting in a total of four models tested.

**Regression models for younger children and parents.** For complete regression summaries of the models testing conflict in Phases 1 and 2 among younger children, see Tables 6 and 7. The first regression model examined younger children's lability, parent dysregulation, and their interaction in relation to conflict in Phase 1. Before the interaction was entered, neither of the individual predictors related to conflict. This suggests that when controlling for the other person's ER processes in Phase 1 children's lability and parent dysregulation did not have any strong association to the amount of

conflict they would experience. Once the interaction was entered, the model was non-significant. In Step 2 of Phase 1, children's lability was only marginally associated to dyadic conflict. Similarly, the regression model for Phase 2 examined the strength of children's lability and parents' dysregulation as predictors of conflict. When entering the model's predictors (parents' dysregulation and children lability) in relation to conflict the model showed that children's lability was a strong predictor of conflict in Step 1 and Step 2 of the model. This suggests that when comparing children's lability and parent dysregulation, children may have a stronger influence than parents do on the amount of conflict the dyad will experience. Despite the strength of children's lability as a predictor, the model showed that there were no significant interaction effects, indicating that children's individual emotion dysregulation was a better predictor of conflict than mismatched ER processes between parent and child.

**Regression model for older children and parents.** For the regression summary statistics for older children, refer to Table 8 and 9. The regression model examining Phase 1 conflict for the older children was not significant. At the first step, children's lability and parents' dysregulation were non-significant predictors of conflict. In step two, the interaction was also non-significant. The model examining Phase 2 conflict showed a similar pattern of results. No main or interactive effects emerged from the analysis. Because the results of the regression model for older children were non-significant, older children may have less of an influence on dyadic conflict with their parents compared to younger children. Therefore, mismatched ER processes do not predict higher levels of conflict, as I had predicted. Instead, the results suggested that

*children's* emotion dysregulation was the strongest predictor of dyadic conflict in younger parent-child dyads.

*Parent Reactions to Children's Negative Emotions and Dyadic Conflict*

My third hypothesis was that non-supportive parent reactions to children's negative emotions would be associated with higher levels of dyadic conflict. To examine this, partial correlations were computed to examine parental reactions and conflict in both Phase 1 and Phase 2, separately for younger and older age groups, with children's lability controlled for in the analyses (Table 10). Results indicated that there were significant correlations between parental reactions and conflict for dyads with younger children. Parents' minimization of children's expressions was associated with higher levels of dyadic conflict only in Phase 2,  $r = .287, p < .01$ . Similarly, correlation results showed that in Phase 2 parents' punitive reactions were marginally correlated with higher levels of dyadic conflict,  $r = .189, p < .095$ . Thus, in dyads with younger children expressing more negative emotions and parents who more often responded with punitive reactions, there were higher levels of dyadic conflict. For dyads with older children, there were no significant correlations between non-supportive parent reactions to children's negative emotions and dyadic conflict. The results suggest that context (whether the dyads were deliberately frustrated, or were allowed to work together) influenced conflict, as evidenced by the correlations found in Phase 2 of the frustration task—the phase in which the parent-child dyad was trying to recalibrate their interaction after the first (frustrating) phase of the dyadic task.

## Discussion

Do parents' and children's ER processes affect their interpersonal interaction during an emotionally challenging task? Results supported the hypotheses that individual ER processes predicted dyadic conflict and that parents' reactions to children's negative emotions were associated with dyadic conflict in younger children. These findings suggest a different pattern of associations between ER processes and conflict for younger and older children. There were three primary research goals of this paper that examined parent-child interactions: 1) Do individual ER processes relate to conflict between the dyad? 2) Can mismatched ER processes relate to higher levels of dyadic conflict? and 3) Do parents' reactions to children's negative emotions relate to dyadic conflict? I hypothesized that healthy ER processes would be associated with less dyadic conflict, mismatched parent-child ER processes would be associated with greater conflict, and that parents' reactions to children's negative emotions would be associated with dyadic conflict. I will explain how the findings supported (or did not support) my hypotheses further in the sections below.

### *Individual ER Processes and Conflict*

Do individual parent and child ER processes relate to dyadic conflict? For younger children, the results showed significant correlations between the individual's ER (parent or child) and dyadic conflict in both phases. When younger children or parents reacted more negatively to negative emotions and regulated emotion less well, there were higher levels of dyadic conflict. This individual association in regards to dyadic conflict suggests that there is a bidirectional influence that younger children and parents have on each other. It makes sense that younger children would react negatively since their



parents are not allowed to help during Phase 1 of the frustration task. Salovey and Sluyter's (1997) findings suggest that younger children seek more ER assistance from their parents. Therefore, when younger children are frustrated from the task, they seek assistance, and when they are denied assistance this creates tension and eventually conflict in their interaction with their parent. Parents' refusal to help with the task is unexpected and non-normative for younger children, and may make it difficult for them to emotion regulate.

Furthermore, younger children's more negative reactions and lability could be explained by their having limited access to ER strategies. When confronted with the concept that their parent cannot help, younger children may not fully understand the reasoning behind this. Thus, younger children may have attempted to regulate their frustration during the dyadic task by recruiting external strategies (i.e. yelling at parent, throwing a tantrum), which may evoke negative emotions or reactions from their parents (Altshuler & Ruble, 1989). This is consistent with previous findings suggesting that parents' non-supportive strategies are associated with poorer ER in children (Morris, Morris, Silk, Steinberg, 2011).

The association found in younger children was not found in older children. This finding may suggest that older children's ER processes is more developed than younger children. This may be explained by the cognitive developmental differences between younger and older children. Previous findings suggest that older children are aware of their emotions, display rules, and that they can change their perspective on the situation (Zeman et. al, 2006; Altshuler & Ruble, 1989). Thus, older children may employ ER strategies such as suppression or cognitive distraction. These findings suggest that the

lack of external ER strategies used may evoke less negative emotions in parents, leading to lower levels of dyadic conflict in their interactions with each other.

#### *Mismatched ER Processes and Conflict*

Second, I investigated whether mismatched ER processes predicted higher levels of dyadic conflict. Initially, it was thought that mismatched ER processes would relate to higher levels of dyadic conflict. Results showed that mismatched ER processes did not relate to dyadic conflict in younger or older children in either phase of the frustrating task. This finding did not support the hypothesis that mismatched ER processes would be associated with greater dyadic conflict. However, the results for the younger children suggest that children's lability was a relatively strong predictor of conflict even when accounting for parents' dysregulation. Essentially, if mismatched ER processes did relate to dyadic conflict, this would imply that both parent and child have a strong influence in the outcome of their interaction. Given that the model suggests that younger children are directing the nature of the interaction with their parents, this may suggest that parents are influenced by their child's behavior, especially in terms of conflict. Research has shown that parents perceive their child as more negative when their child is expressing their negative emotions (Webster-Stratton & Eyeberg, 1982; Southam-Gerow & Kendall, 2012). This suggests that children's negative emotions may influence a reaction from the parent.

Contextual factors may influence dyadic conflict. One potential explanation may be individual differences in parents' ER strategy use and ER skill. Adult ER literature suggests that young adults and middle-aged adults vary significantly in their ER processes. Studies have reported that young adults tend to employ passive ER strategies

when in interpersonal conflicts, while middle-aged adults employ problem-focused ER strategies (Orgeta, 2009; Blanchard-Fields, Stein, & Watson, 2009). This suggests that it may be possible that younger parents would be more likely to ignore the situation when in conflict with their child, failing to comfort younger children who might be seeking ER guidance. Therefore, it may be that the parent's minimizing behavior increases the child's negative emotions, which in turn frustrates the parent and increases parents' non-supportive reactions, creating a cycle of negative emotions and non-supportive reactions between parent and child. Since middle-aged adults are more likely to employ problem-focused strategies, this may suggest that these parents would try to fix the problem that is causing distress to their child and this approach would potentially be associated with less dyadic conflict. Further research should investigate how parents' age influences their use of ER strategies and interactions with their child.

*Parents' Reactions to Children's Negative Emotions and Dyadic Conflict*

Are parents' reactions to children's negative emotions related to higher levels of dyadic conflict during a frustration task? This particular finding was quite interesting because I again found associations for younger children but not for older children, and the pattern was specific to conflict in the second phase of the frustrating task (when parents and children could work together). This is noteworthy because Phase 2 is when parents and children are recalibrating and able to return to more a normal interaction style for their relationship. As parents more strongly endorsed minimizing (downplaying) their younger child's negative emotions, there were higher levels of conflict in Phase 2. Past research has shown that younger children do not have fully developed ER processes (Zeman et. al, 2006) and require guidance from their parent to regulate emotion. Input

from a trusted other (like a parent) that belittles the emotional experience of the child, as would be the case in a minimization reaction, could lead to children reacting with more conflictive behavior than would older children. It is also interesting to note that this relationship was not significant in parent-child dyads with older children. This may be that as children become older they learn different ER strategies and are better equipped when in a frustrating situation (Pons, Harris, & De Rosnay, 2004). Around the age of 8, children begin to understand that they can hide their emotions, they understand the roles of desires and beliefs, and they can begin to connect these concepts with the distinction of feeling an emotion versus expressing an emotion (Pons et al., 2004). Therefore, while they may still be affected by their parent's comments, older children may be better at regulating how they feel when in that situation in comparison to younger children.

#### *Limitations and Future Directions*

This paper examines parent and child ER processes, and the relation to conflict in their interactions. The age differences in the pattern of results I identified suggests that there are different contextual factors that influence dyadic conflict at different points in childhood. In particular, the results indicate that younger children's negative emotions influence conflict between parent and child, an association not found in older children. A potential limitation of the study is that it is difficult to determine if the frustrating task used in the laboratory elicited the same levels of frustration and negative emotions for older children (who may have turned the experience of frustration inward) that younger children outwardly express. Further studies should implement a questionnaire that measures the different ER strategies children use during the frustration task. This can help identify the varying contextual factors that may influence higher or lower levels of

dyadic conflict. Lastly, the present study's child measures were primarily parent reports on children's behavior. Thus, it is harder to obtain information about ER processes from younger children since they have difficulties identifying negative emotions and talking about their emotions. Future child ER studies should incorporate an age appropriate self-report that measures children's negative affect.

Previous research has examined ER processes at different life stages each with a focus on the overall development of ER. This paper examined ER processes in relation to conflict through parent-child interactions. Participants were divided into two age groups—younger and older children—in order to identify age differences in ER in relation to conflict. The approach is novel in that conflict was measured at the dyadic level instead of individually. Results show that parents and children can individually influence conflict during their interaction. As such, younger children were identified as key predictors of conflict when parents and children interacted. Lastly, younger children and parents who expressed non-supportive reactions showed that after experiencing conflict it was much harder for them to return to their normal interactions. These findings suggest that ER is a developmental process that is dynamic throughout childhood.

## References

- Altshuler, J., & Ruble, D. (1989). Developmental Changes in Children's Awareness of Strategies for Coping with Uncontrollable Stress. *Child Development, 60*(6), 1337-1349. doi:10.2307/1130925
- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*(2), 217-237.
- Blanchard-Fields, F., & Coats, A. H. (2008). The experience of anger and sadness in everyday problems impacts age differences in emotion regulation. *Developmental Psychology, 44*(6), 1547.
- Blanchard-Fields, F., Stein, R., & Watson, T. L. (2004). Age differences in emotion-regulation strategies in handling everyday problems. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 59*(6), P261-P269.
- Brenner, E. M., & Salovey, P. (1997). Emotional regulation during childhood: Developmental, interpersonal, and individual considerations. In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 168-195). New York: Harper Collins.
- Buss, K. A., & Goldsmith, H. H. (1998). Fear and anger regulation in infancy: Effects on the temporal dynamics of affective expression. *Child development, 69*(2), 359-374.
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development, 59*(2), 228-249.

- Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development, 75*(2), 317-333.
- Davis, E. L., & Levine, L. J. (2013). Emotion regulation strategies that promote learning: Reappraisal enhances children's memory for educational information. *Child Development, 84*(1), 361-374.
- Diamond, L. M., & Aspinwall, L. G. (2003). Emotion regulation across the life span: An integrative perspective emphasizing self-regulation, positive affect, and dyadic processes. *Motivation and Emotion, 27*(2), 125-156.
- Dumas, J. E., LaFreniere, P. J., & Serketich, W. J. (1995). "Balance of power": a transactional analysis of control in mother-child dyads involving socially competent, aggressive, and anxious children. *Journal of Abnormal Psychology, 104*(1), 104.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry, 9*(4), 241-273.
- Feinstein, L., & Bynner, J. (2004). The importance of cognitive development in middle childhood for adulthood socioeconomic status, mental health, and problem behavior. *Child Development, 75*(5), 1329-1339.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of psychopathology and behavioral assessment, 26*(1), 41-54.
- Gross, J. J. (1998). The emerging field of

- emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271.
- Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science*, 10(6), 214-219.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348.
- Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations.
- Kam, C. M., Greenberg, M. T., Bierman, K. L., Coie, J. D., Dodge, K. A., Foster, M. E., ... & Conduct Problems Prevention Research Group. (2011). Maternal depressive symptoms and child social preference during the early school years: Mediation by maternal warmth and child emotion regulation. *Journal of abnormal child psychology*, 39(3), 365-377.
- Kochanska, G., Philibert, R. A., & Barry, R. A. (2009). Interplay of genes and early mother-child relationship in the development of self-regulation from toddler to preschool age. *Journal of Child Psychology and Psychiatry*, 50(11), 1331-1338.
- Kornienko, D. S. (2016). Child Temperament and Mother's Personality as a Predictors of Maternal Relation to Child. *Procedia-Social and Behavioral Sciences*, 233, 343-347.
- Lunkenheimer, E. S., Olson, S. L., Hollenstein, T., Sameroff, A. J., & Winter, C. (2011). Dyadic flexibility and positive affect in parent-child coregulation and the development of child behavior problems. *Development and Psychopathology*, 23(02), 577-591.



- Molina, P., Sala, M. N., Zappulla, C., Bonfigliuoli, C., Cavioni, V., Zanetti, M. A., ... & Raccanello, D. (2014). The Emotion Regulation Checklist–Italian translation. Validation of parent and teacher versions. *European Journal of Developmental Psychology, 11*(5), 624-634.
- Morris, A. S., Silk, J. S., Morris, M. D., Steinberg, L., Aucoin, K. J., & Keyes, A. W. (2011). The influence of mother–child emotion regulation strategies on children's expression of anger and sadness. *Developmental psychology, 47*(1), 213.
- Orgeta, V. (2009). Specificity of age differences in emotion regulation. *Aging and Mental Health, 13*(6), 818-826.
- Pons, F., Harris, P. L., & de Rosnay, M. (2004). Emotion comprehension between 3 and 11 years: Developmental periods and hierarchical organization. *European Journal of Developmental Psychology, 1*(2), 127-152.
- Rothbart, M. K. (1988). Temperament and the Development of Inhibited Approach. *Child Development, 1241-1250*.
- Schreiber, L. R. N., Grant, J. E., & Odlaug, B. L. (2012). Emotion Regulation and Impulsivity in Young Adults. *Journal of Psychiatric Research, 46*(5), 651–658.  
<http://doi.org/10.1016/j.jpsychires.2012.02.005>
- Scheibe, S., & Blanchard-Fields, F. (2009). Effects of regulating emotions on cognitive performance: what is costly for young adults is not so costly for older adults. *Psychology and Aging, 24*(1), 217.
- Shipman, K. L., & Zeman, J. (2001). Socialization of children's emotion regulation in mother–child dyads: A developmental psychopathology perspective. *Development and Psychopathology, 13*(02), 317-336.

- Southam-Gerow, M. A., & Kendall, P. C. (2002). Emotion regulation and understanding: Implications for child psychopathology and therapy. *Clinical Psychology Review*, 22(2), 189-222.
- Stifter, C. A., Spinrad, T., & Braungart-Rieker, J. (1999). Toward a developmental model of child compliance: The role of emotion regulation in infancy. *Child Development*, 70(1), 21-32.
- Webster-Stratton Eyeberg 1982
- Thompson, R. A. (2011). Emotion and emotion regulation: Two sides of the developing coin. *Emotion Review*, 3(1), 53-61.
- Urry, H. L., & Gross, J. J. (2010). Emotion regulation in older age. *Current Directions in Psychological Science*, 19(6), 352-357.
- Webster-Stratton, C., & Eyberg, S. M. (1982). Child temperament: Relationship with child behavior problems and parent-child interactions. *Journal of Clinical Child & Adolescent Psychology*, 11(2), 123-129.
- Yeung, D. Y., Wong, C. K., & Lok, D. P. (2011). Emotion regulation mediates age differences in emotions. *Aging & Mental Health*, 15(3), 414-418.
- Zeman, J., Cassano, M., Perry-Parrish, C., & Stegall, S. (2006). Emotion regulation in children and adolescents. *Journal of Developmental & Behavioral Pediatrics*, 27(2), 155-168.
- Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International Journal of Behavioral Development*, 38(2), 182-194.



## Appendix A

### Difficulties in Emotion Regulation Scales (DERS)

**Instructions.** Please indicate how often the following statements apply to you by writing the appropriate number from the scale below on the line beside each item:

- 1—Almost Never (0-10%)
- 2—Sometimes (11-35%)
- 3—About the half time (36-65%)
- 4—Most of the time (66-90%)
- 5—Almost always (91-100%)

- 1) I am clear about my feelings.
- 2) I pay attention to how I feel.
- 3) I experience my emotions as overwhelming and out of control.
- 4) I have no idea how I am feeling.
- 5) I have difficulty making sense out of my feelings
- 6) I am attentive to my feelings.
- 7) I know exactly how I am feeling.
- 8) I care about what I am feeling.
- 9) I am confused about how I feel.
- 10) When I'm upset, I acknowledge my emotions.
- 11) When I'm upset, I become angry with myself for feeling that way.
- 12) When I'm upset, I become embarrassed for feeling that way.
- 13) When I'm upset, I have difficulty getting work done.
- 14) When I'm upset, I become out of control.
- 15) When I'm upset, I believe that I will remain that way for a long time.
- 16) When I'm upset, I believe that I'll end up feeling very depressed.
- 17) When I'm upset, I believe that my feelings are valid and important.
- 18) When I'm upset, I have difficulty focusing on other things.
- 19) When I'm upset, I feel out of control.
- 20) When I'm upset, I can still get things done.
- 21) When I'm upset, I feel ashamed with myself for feeling that way.
- 22) When I'm upset, I know that I can find a way to eventually feel better.
- 23) When I'm upset, I feel like I am weak.
- 24) When I'm upset, I feel like I can remain in control of my behaviors.
- 25) When I'm upset, I feel guilty for feeling that way.
- 26) When I'm upset, I have difficulty concentrating.
- 27) When I'm upset, I have difficulty controlling my behaviors.
- 28) When I'm upset, I believe that there is nothing I can do to make myself feel better.
- 29) When I'm upset, I become irritated with myself for feeling that way.
- 30) When I'm upset, I start to feel very bad about myself.
- 31) When I'm upset, I believe that wallowing in it is all I can do.
- 32) When I'm upset, I lose control over my behaviors.
- 33) When I'm upset, I have difficulty thinking about anything else.

- 34) When I'm upset, I take time to figure out what I'm really feeling.
- 35) When I'm upset, it takes me a long time to feel better.
- 36) When I'm upset, my emotions feel overwhelming.

## Appendix B

### Coping with Children's Negative Emotions Scale (CCNES)

**Instructions.** For the following items please indicate on a scale from 1 (very unlikely) to 7 (very likely) the likelihood that you would respond in the ways listed for each item. Please read each item carefully and respond as honestly and sincerely as you can. For each response, please circle only one number from 1-7.

1. If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would:

a) Send my child to his/her room to cool off	1	2	3	4	5	6	7
b) Get angry at my child	1	2	3	4	5	6	7
c) Help my child think about ways that he/she can still be with friends (e.g., invite some friends over after the party)	1	2	3	4	5	6	7
d) Tell my child not to make a big deal out of missing the party	1	2	3	4	5	6	7
e) Encourage my child to express his/her feelings of anger and frustration	1	2	3	4	5	6	7
f) Soothe my child and do something fun with him/her to make him/her feel better about missing the party	1	2	3	4	5	6	7

2. If my child falls off his/her bike and breaks it, and then gets upset and cries, I would:

a) Remain calm and not let myself get anxious	1	2	3	4	5	6	7
b) Comfort my child and try to get him/her to forget about the accident	1	2	3	4	5	6	7
c) Tell my child that he/she is over-reacting	1	2	3	4	5	6	7
d) Help my child figure out how to get the bike fixed	1	2	3	4	5	6	7
e) Tell my child it's OK to cry	1	2	3	4	5	6	7
f) Soothe my child and do something fun with him/her to make him/her feel better about missing the party	1	2	3	4	5	6	7

3. If my child loses some prized possession and react with tears, I would:

4.

a) Get upset with him/her for being so careless and then crying about it	1	2	3	4	5	6	7
b) Tell my child that he/she is over-reacting	1	2	3	4	5	6	7
c) Help my child think of places he/she hasn't looked yet	1	2	3	4	5	6	7
d) Distract my child by talking about happy things	1	2	3	4	5	6	7
e) Tell him/her it's OK to cry when you feel unhappy	1	2	3	4	5	6	7
f) Tell him/her that's what happens when you're not careful	1	2	3	4	5	6	7

5. If my child is afraid of injections and becomes quite shaky and teary while waiting for his/her turn to get a shot, I would:

a) Tell him/her to shape up or he/she won't be allowed to do something he/she likes to do (e.g., watch TV)	1	2	3	4	5	6	7
b) Encourage my child to talk about his/her fears	1	2	3	4	5	6	7
c) Tell my child not to make big deal of the shot	1	2	3	4	5	6	7
d) Tell him/her not to embarrass us by crying	1	2	3	4	5	6	7
e) Comfort him/her before and after the shot	1	2	3	4	5	6	7
f) Talk to my child about ways to make it hurt less (such as relaxing so it won't hurt or taking deep breaths)	1	2	3	4	5	6	7

6. If my child is going over to spend the afternoon at a friend's house and becomes nervous and upset because I can't stay there with him/her I would:

a) Distract my child by talking about all the fun he/she will have with his/her friend	1	2	3	4	5	6	7
b) Help my child think of things that he/she could do so that being at the friend's house without me wasn't scary (e.g., take a favorite book or toy with him/her)	1	2	3	4	5	6	7
c) Tell my child to quit over-reacting and being a baby	1	2	3	4	5	6	7
d) Tell the child that if he/she doesn't stop that he/she won't be allowed to go out anymore.	1	2	3	4	5	6	7
e) Feel upset and uncomfortable because of my child's reactions	1	2	3	4	5	6	7
f) Encourage my child to talk about his/her nervous feelings	1	2	3	4	5	6	7

7. If my child is participating in some group activity with his/her friends and proceeds to make a mistake and then looks embarrassed and on the verge of tears, I would:

a) Comfort my child and try to make him/her feel better	1	2	3	4	5	6	7
b) Tell my child that he/she is over-reacting	1	2	3	4	5	6	7
c) Feel uncomfortable and embarrassed myself	1	2	3	4	5	6	7
d) Tell my child to straighten up or we'll go home right away	1	2	3	4	5	6	7
e) Encourage my child to talk about his/her feelings of embarrassment	1	2	3	4	5	6	7
f) Tell my child that I'll help him/her practice so that he/she can do better next time	1	2	3	4	5	6	7

8. If my child is about to appear in a recital or sports activity and becomes visibly nervous about people watching him/her, I would:

a) Send my child to his/her room to cool off	1	2	3	4	5	6	7
b) Get angry at my child	1	2	3	4	5	6	7
c) Help my child think about ways that he/she can still be with friends (e.g., invite some friends over after the party)	1	2	3	4	5	6	7
d) Tell my child not to make a big deal out of missing the party	1	2	3	4	5	6	7
e) Encourage my child to express his/her feelings of anger and frustration	1	2	3	4	5	6	7
f) Soothe my child and do something fun with him/her to make him/her feel better about missing the party	1	2	3	4	5	6	7

9. If my child is panicky and can't go to sleep after watching a scary TV show, I would:

a) Encourage my child to talk about what scared him/her	1	2	3	4	5	6	7
b) Get upset with him/her for being silly	1	2	3	4	5	6	7
c) Tell my child that s/he is over reacting	1	2	3	4	5	6	7
d) Help my child think of something to do so that s/he can get to sleep (e.g. take a toy to bed, leave the lights on)	1	2	3	4	5	6	7
e) Tell him/her to go to bed or s/he won't be allowed to watch anymore TV	1	2	3	4	5	6	7
f) Do something fun with my child to help him/her forget about what scared him/her	1	2	3	4	5	6	7

10. If my child is at a park and appears on the verge of tears because the other children are mean to him/her and won't let him/her play with them I would:

a) NOT get upset myself	1	2	3	4	5	6	7
b) Tell my child that if s/he starts crying then we'll have to go home right away	1	2	3	4	5	6	7
c) Comfort my child and try to get him/her to think about something happy	1	2	3	4	5	6	7
d) Help my child think of something else to do	1	2	3	4	5	6	7
e) Tell my child that s/he will feel better soon	1	2	3	4	5	6	7
f) NOT get upset myself	1	2	3	4	5	6	7



11. If my child is playing with other children and one of them call him/her names, and my child then begins to tremble and become tearful, I would:

a) Tell my child not to make a big deal out of it	1	2	3	4	5	6	7
b) Feel upset myself	1	2	3	4	5	6	7
c) Tell my child to behave or we'll have to go home right away	1	2	3	4	5	6	7
d) Help my child think of constructive things to do when other children tease him/her (e.g. find other things to do)	1	2	3	4	5	6	7
e) Comfort him/her and play a game to take his/her mind off the upsetting event	1	2	3	4	5	6	7
f) Encourage him/her to talk about how it hurts to be teased	1	2	3	4	5	6	7

12. If my child is shy and scared around strangers and consistently becomes teary and wants to stay in his/her bedroom whenever family friends come to visit, I would:

a) Help my child think of things to do what would make meeting my friends less scary (e.g., to take a favorite toy with him/her when meeting my friends)	1	2	3	4	5	6	7
b) Tell my child that it is OK to feel nervous	1	2	3	4	5	6	7
c) Try to make my child happy by talking about the fun things we can do without friends	1	2	3	4	5	6	7
d) feel upset and uncomfortable because of my child's reactions	1	2	3	4	5	6	7
e) tell my child that s/he must stay in the living room and visit with our friends	1	2	3	4	5	6	7
f) tell my child that s/he is being a baby	1	2	3	4	5	6	7

## Appendix C

### Emotion Regulation Checklist

Below are some statements describing a child. Please compare your child to this child and tell us whether your child is:

1—Rarely/Never like this child	3—Often like this child
2—Sometimes like this child	4—Almost always like this child

1. Is a cheerful child.
2. Exhibits wide mood swings (child's emotional state is difficult to anticipate because s/he moves quickly from a positive to a negative mood).
3. Responds positively to neutral or friendly overtures by adults.
4. Transitions well from one activity to another; doesn't become angry, anxious, distressed, or overly excited when moving from one activity from one activity to another.
5. Can recover quickly from upset or distress (doesn't become angry, anxious, or sad after emotionally distressing events).
6. Is easily frustrated.
7. Responds positively to neutral or friendly overtures by peers.
8. Is prone to angry outbursts/tantrums easily.
9. Is able to delay gratification.
10. Takes pleasure in distress of others (laughs when another person gets hurt or punished; seems to enjoy teasing others).
11. Can modulate excitement) doesn't get carried away in high energy play or overly excited in inappropriate contexts).
12. Is whiny or clingy with adults.
13. Is prone to disruptive outbursts of energy and exuberance.

## Appendix D

*Table 1. Dyadic Conflict Measure*

Assigned Code	Description	Number of Dyads with Assigned code	
		Phase 1	Phase 2
1 Very Little/No Conflict	If no conflict is witnessed between the dyad. Very Little Conflict: At most one participant talks in a demanding tone. (“Help me now!” “Stop it.”) At most one of the participants expressed frustration as a result of the other person’s lack of effort/interest	109	102
2 Slight Conflict	One individual tries to forcefully take over task Acts careless about the task Uses a strident tone of voice (sounds irritated, uses a low voice, monotone, angry voice) Lashes out through sarcasm or has an attitude Annoyed with other person’s behavior (constant loudness, whines, crying, comments about being annoyed)	25	30
3 Moderate Conflict	Expresses frustration through facial expressions or body movements Expresses pessimistic statements on their ability to complete task Parent ignores child’s negative comments; does not console them Lack of communication Loses interest and no longer participates, someone takes over the task (person trying may or may not tell the other person to help)	30	23
4 High Conflict	Child is crying (actual tears or exaggerated whining) out of frustration or inability to complete task Humming/singing used to cope with frustration or boredom High levels of no communication Parent frequently ignores child’s negative comments and does not console child Frequently expresses pessimistic statements on ability to complete task High levels of inquietude (cannot sit still) or anxiety due to not being able to complete task (moving or tapping pieces, inability to move forward, bangs/puts head on table, covers face, shakes head constantly) Expresses these tones of voice: irritated, uninterested, sarcastic, flippant Majority of the time: someone gives up on the task and does not help or someone forcefully takes over the task	9	13
5 Very High Conflict	Parent/child excessively expresses frustration verbally: (raising voice when saying discouraging statements, cursing, attitude/sarcasm, emphasizes directions angrily, demanding tone of voice, pessimistic statements on ability to complete task) Parent or child excessively expresses frustration through facial expressions (rolling eyes, pouting, furrowed eyebrows, glaring) Parent or child excessively expresses frustration through body movements (moving or tapping Legos excessively due to frustration or inability to move forward; puts head on table, covers face, shakes head constantly, slumps shoulders in a defeated manner) Only one individual works on the task or one individual acts careless about the task during the entire phase Child or parent is frustrated/annoyed with the other person’s behavior during the entire phase Very little to absolutely no communication Excessive levels of inquietude (cannot sit still) or anxiety due to not being able to complete task (moving or tapping pieces, inability to move forward, bangs/puts head on table, covers face, shakes head constantly) Expresses these tones of voice: irritated, uninterested, sarcastic, flippant	2	4

## Appendix E

Table 2. *Descriptive Statistics for Study Variables*

	N	Minimum	Maximum	Mean	Std. Deviation	Age Group (N)	
						Younger Children (3-7)	Older Children (8-11)
<b>Child Variables</b>							
ERC Lability/Negative Emotion	179	1.00	3.20	1.77	.45	94	85
Child Dysregulation	179	2.14	4.00	3.37	.44	97	87
<b>Parent Variables</b>							
DERS Nonacceptance of emotional responses	172	6.00	30.00	12.44	5.80	91	81
DERS Difficulty engaging in goal-directed behavior	172	5.00	25.00	11.53	4.34	91	81
DERS Impulse Control Difficulties	171	6.00	29.00	11.97	3.78	90	81
DERS Lack of Emotional Awareness	173	6.00	28.00	13.94	4.51	91	82
DERS Limited Access to Emotion Regulation Strategies	170	8.00	35.00	13.77	5.85	89	81
DERS Lack of Emotional Clarity	173	5.00	21.00	8.79	3.07	86	82
DERS Total Score	170	40.00	144.00	72.55	19.23	88	81
CCNES Punitive Reactions	170	1.00	5.67	2.42	.93	88	84
CCNES Expressive Encouragement	173	1.17	7.00	4.85	1.27	88	85
CCNES Emotion-Focused Reaction	173	1.17	7.00	4.85	1.27	92	85
CCNES Problem-Focused Reaction	177	2.92	7.00	5.81	.80	87	85
CCNES Minimization Reactions	172	1.00	6.00	2.84	1.02	85	85
CCNES Distress Reactions	170	1.00	6.00	2.48	.78	91	85
<b>Dyadic Conflict</b>							
Phase 1	175	1	5	1.69	1.01	89	84
Phase 2	172	1	5	1.76	1.09	97	83
Valid N (listwise)	153					95	78

*Note.* Participants represented a healthy and normative sample of population.  
Child Variables: ERC=Emotion Regulation Checklist  
Parent Variables: DERS=Dysregulated Emotion Regulation Strategies, CCNES=Coping with Children's Negative Emotions Scale, Dyadic Conflict: Phase 1 = without parental help, Phase 2 = with parental help

## Appendix F

Table 3. *Preliminary Correlations*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Phase 1	--																
2. Phase 2	.752	--															
3. ERC Liability	.086	.106	--														
4. ERC Emotion Regulation	.054	.080	.526**	--													
5. CCNES Minimization	.028	.093	.092	-.192*	--												
6. CCNES Distress	.067	.070	.201**	.256**	.478**	--											
7. CCNES Punitive	.036	.040	.235**	.263**	.641**	.556**	--										
8. CCNES Emotion-Focused	.023	.015	.016	.258**	.019	.006	-.096	--									
9. CCNES Problem-Focused	.022	.001	-.073	.324**	.047	.163*	.163*	.493**	--								
10. CCNES Expressive Encouragement	.023	.015	.016	.258**	.019	.006	-.096	1.000**	.493**	--							
11. DERS Total	.092	.090	.464**	.297**	.215**	.377	.422**	-.093	-.100	.093	--						
12. DERS Nonacceptance	.075	.096	.305**	-.088	.213**	.278**	.325**	.113	.083	.113	.738**	--					
13. DERS Goals	.069	.020	.491**	.189**	.085	.270**	.307**	.013	-.021	.013	.762**	.423**	--				
14. DERS Impulse	.147	.112	.306**	-.072	.207**	.244**	.393**	.002	-.036	.002	.754**	.510**	.583**	--			
15. DERS Awareness	.105	.101	.432	-.272	.150	.322	-.102	-.083	-.083	.382	.904	.610	.692	.754	--		
16. DERS Strategies	.105	.101	.432**	.272**	.150	.322**	.382**	-.083	-.102	.083	.904**	.610**	.692**	.754**	.051	--	
17. DERS Clarity	.085	.029	.332**	.336**	.072	.335**	.241**	-.026	-.111	.026	.732**	.366**	.527**	.416**	.317**	.609**	--

Note. Variables: ERC = Emotion Regulation Checklist CCNES = Coping with Children's Negative Emotion Scale. DERS = Difficulties in Emotion Regulation Scale. \*p < .05. \*\*p < .01.

## Appendix G

Table 4. *Younger Children Correlation Table*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Phase 1	--																
2. Phase 2	.760**	--															
3. ERC Labilty	.279**	.400**	--														
4. ERC Emotion Regulation	.013	.003*	-.431**	--													
5. CCNES Minimization	.124	.236*	.064	-.151	--												
6. CCNES Distress	.182	.204	.218*	-.226*	.448**	--											
7. CCNES Punitive	.082	.219*	.234*	-.199	.633**	.574**	--										
8. CCNES Emotion-Focused	-.064	-.040	-.096	.333**	-.058	-.046	-.130	--									
9. CCNES Problem-Focused	-.031	.057	-.017	.269**	.026	-.209	-.182	.417**	--								
10. CCNES Expressive Encouragement	-.064	-.040	-.096	.333**	-.058	-.046	-.130	1.000**	.417**	--							
11. DERS Total	.238*	.296**	.521**	-.295**	.294**	.459**	.445**	-.228*	-.082	-.228*	--						
12. DERS Nonacceptance	.228*	.243*	.338**	-.103	.297**	.335**	.368**	-.087	.142	-.087	.733**	--					
13. DERS Goals	.205	.241*	.537**	-.187	.299**	.381**	.410**	-.078	-.008	-.078	.781**	.445**	--				
14. DERS Impulse	.264*	.261*	.337**	-.065	.195	.319**	.430**	-.040	.004	-.040	.743**	.489**	.573**	--			
15. DERS Awareness	-.075	-.011	.085	-.378**	.139	.163	.037	-.505**	-.363**	-.505**	.298**	.017	.043	-.135	--		
16. DERS Strategies	.271*	.334**	.533**	-.223*	.184	.384**	.385**	-.125	-.027	-.125	.905**	.617**	.697**	.754**	.077	--	
17. DERS Clarity	.114	.110	.346**	-.303**	.057	.357**	.232*	-.149	-.187	-.149	.756**	.336**	.602**	.475**	.340**	.627**	--

Note. Variables: ERC = Emotion Regulation Checklist CCNES = Coping with Children's Negative Emotion Scale. DERS = Difficulties in Emotion Regulation Scale. \* p < .05. \*\* p < .01.



## Appendix H

Table 5. *Older Kids Correlations*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Phase 1	--																
2. Phase 2	.745**	--															
3. ERC Lability	-.104	-.146	--														
4. ERC Emotion Regulation	.090	.141	-.584**	--													
5. CCNES Minimization	-.074	-.048	.094	-.206	--												
6. CCNES Distress	-.034	-.026	.183	-.267*	.498**	--											
7. CCNES Punitive	-.182	-.152	.232*	-.313**	.643**	.542**	--										
8. CCNES Emotion-Focused	.019	.007	.099	.203	.087	.041	-.067	--									
9. CCNES Problem-Focused	-.025	-.061	-.101	.357**	.077	-.129	-.144	.557**	--								
10. CCNES Expressive Encouragement	.019	.007	.099	.203	.087	.041	-.067	1.000**	.557**	--							
11. DERS Total	-.106	-.137	.433**	-.315**	.148	.325**	.409**	.043	-.125	.043	--						
12. DERS Nonacceptance	-.114	-.062	.283*	-.077	.134	.237*	.284*	.303*	.036	.303**	.745**	--					
13. DERS Goals	-.103	.226*	.501**	-.237*	-.089	.209	.235*	.102	.023	.102	.749**	.410**	--				
14. DERS Impulse	-.021	-.070	.299**	-.092	.239*	.191	.364**	.051	-.085	.051	.770**	.543**	.602**	--			
15. DERS Awareness	-.055	.020	.045	-.254*	.116	.116	.161	-.371**	-.281*	.371**	.236*	-.081	-.064	-.069	--		
16. DERS Strategies	-.108	-.148	.354**	-.319**	.116	.279*	.380**	-.045	-.166	-.045	.906**	.604**	.709**	.762**	.022	--	
17. DERS Clarity	.049	-.052	.329**	-.378**	.090	.327**	.259*	.104	-.042	.104	.705**	.401**	.455**	.337**	.289**	.589**	--

Note. Variables: ERC = Emotion Regulation Checklist CCNES = Coping with Children's Negative Emotion Scale. DERS = Difficulties in Emotion Regulation Scale. \*p < .05. \*\*p < .01.

## Appendix I

*Table 6. Regression Model for Interaction between Parent Dysregulation and Children's Lability in Younger Children Phase 1*

Variable	Step 1					Step 2				
	b	Std. Error	$\beta$	t	P-value	b	Std. Error	$\beta$	t	P-value
Children's Lability	.209	1.27	.208	1.651	.103	.231	.127	.229	1.813	.073
Parent Dysregulation	.129	.131	.124	.986	.327	.033	.149	.032	.224	.823
Interaction: Children's Lability X Parent Dysregulation						.145	.109	.162	1.325	.189

## Appendix J

*Table 7. Regression Model for Interaction between Parent Dysregulation and Children's Lability in Younger Children Phase 2*

Variable	Step 1					Step 2				
	b	Std. Error	$\beta$	t	P-value	b	Std. Error	$\beta$	t	P-value
Children's Lability	.334	.126	.320	2.646	.010	.349	.126	.335	2.763	.007
Parent Dysregulation	.144	.141	.124	1.023	.309	.074	.152	.064	.486	.628
Interaction: Children's Lability X Parent Dysregulation						.133	.113	.131	1.182	.241

## Appendix K

*Table 8. Regression Model for Interaction between Parent Dysregulation and Children's Lability in Older Children Phase 1*

Variable	Step 1					Step 2				
	b	Std. Error	$\beta$	t	P-value	b	Std. Error	$\beta$	t	P-value
Children's Lability	-.053	.117	-.055	-.451	.653	-.048	.119	-.050	-.403	.688
Parent Dysregulation	-.084	.121	-.085	-.693	.490	-.087	.122	-.088	-.714	.478
Interaction: Children's Lability X Parent Dysregulation						.040	.120	.039	.337	.737

## Appendix L

*Table 9. Regression Model for Interaction between Parent Dysregulation and Children's Lability in Older Children Phase 2*

Variable	Step 1					Step 2				
	b	Std. Error	$\beta$	t	P-value	b	Std. Error	$\beta$	t	P-value
Children's Lability	-.085	.136	-.077	-.626	.533	-.096	.137	-.087	-.703	.484
Parent Dysregulation	-.124	.140	-.108	-.884	.380	-.096	.137	-.087	-.703	.412
Interaction: Children's Lability X Parent Dysregulation						-.092	.138	-.076	-.665	.508

## Appendix M

Table 10. *Partial Correlation (Controlling for Children's Liability) for Parent's Reactions to Children's Emotionality in Younger Children*

Variable	1	2	3	4	5	6	7	8
1. Phase 1	--							
2. Phase 2	.723**	--						
3. CCNES Minimization	.167	.287**	--					
4. CCNES Distress	.173	.143	.405**	--				
5. CCNES Punitive	.063	.189*	.632**	.541**	--			
6. CCNES Emotion-Focused	-.028	.013	-.101	-.043	-.192	--		
7. CCNES Problem-Focused	-.016	.076	-.024	-.263*	-.246	.371**	--	
8. CCNES Expressive Encouragement	-.028	.013	-.101	-.043	-.192	1.00**	.371**	--

*Note.* Variables: CCNES = Coping with Children's Negative Emotion Scale. \*p < .05. \*\*p < .01.

## Appendix N

Table 11. *Partial Correlation (Controlling for Children's Liability) for Parent's Reactions to Children's Emotionality Liability in Older Children*

Variable	1	2	3	4	5	6	7	8
1. Phase 1	--							
2. Phase 2	.746**	--						
3. CCNES Minimization	-.108	-.045	--					
4. CCNES Distress	-.098	-.016	.370**	--				
5. CCNES Punitive	-.154	-.125	.616**	.491**	--			
6. CCNES Emotion-Focused	.008	.020	.094	.004	-.068	--		
7. CCNES Problem-Focused	-.026	-.074	.052	-.148	-.142	.590**	--	
8. CCNES Expressive Encouragement	.008	.020	.094	.004	-.068	1.00**	.590**	--

*Note.* Variables: CCNES = Coping with Children's Negative Emotion Scale. \*  $p < .05$ . \*\*  $p < .01$ .