Caregivers' Role in Fostering Resilience in Preschoolers

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CAREGIVERS' ROLE IN FOSTERING RESILIENCE IN PRESCHOOLERS

by

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ABSTRACT
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The present study examined the association between specific parenting practices and the development of resilience in preschoolers from high-risk families. The current study used a multi-method, multi-informant design to identify parenting behaviors associated with positive adjustment and well-being in preschoolers exposed to adversity. Families were recruited from Head Start programs and 124 child-caregiver dyads agreed to participate. Child participants (51% male) from grades K3 through K5 ranged from 3-6 years of age (M = 4), while caregivers (85.5% female) were between the ages of 19 and 69 years (M = 32). Participants were predominately Black or African American. Resilience was assessed using caregiver and teacher reports of preschoolers' level adjustment in multiple domains of functioning, including effective emotion regulation skills, social competence with peers, school readiness, and low levels of internalizing and externalizing behaviors. Self-report and observational measures were used to identify parenting behaviors, including parental warmth, emotion coaching, emotional validation, and emotional invalidation. Together, emotion coaching, validating, and invalidating parenting behaviors accounted for a significant variance in resilience after accounting for parental warmth, with emotion coaching uniquely predicting resilience. Additionally, caregivers' emotion coaching behavior significantly predicted individual domains of resilience, including higher functioning in the domains of emotion regulation, social competence, and school readiness. Findings also demonstrated that parental warmth predicted greater levels of resilience when caregivers engaged in higher levels of emotional validation and emotion coaching behaviors. These results highlight the importance of caregivers from high-risk families being taught specific validating and emotion coaching behaviors to promote greater resilience in their children.

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Introduction

According to the 2011-2012 National Survey of Children's Health (NSCH; Data Resource Center for Child and Adolescent Health, 2013), about 9 million children under the age of five experience one or more adverse experiences, which can include exposure to violence, abuse, and poverty. Early childhood is a critical period for the development of self-regulation, including self-control of attention, emotions, and behaviors. Self-regulatory abilities in turn foster children's ability to accomplish age-salient developmental tasks, such as developing relationships with peers; following rules and instructions; and managing their attention, impulses, and emotions (Masten, 2014). Early exposure to adversity during childhood can disrupt the development of developing regulatory systems and is associated with a range of maladaptive outcomes, including internalizing and externalizing symptoms, peer rejection, and academic problems (Kim & Cicchetti, 2010).

However, a significant number of children who experience adversity demonstrate resilience. Resilience is defined as successful adaptation or healthy functioning despite exposure to challenging or threatening circumstances (Luthar, Cicchetti, & Becker, 2000; Masten, Best, & Garmezy, 1990). The preschool years are a key transitional period, as children are presented with new cognitive, social, and behavioral demands with the onset of formal schooling. As children grow older, these demands continue to increase, which makes it increasingly harder for children to catch up to their peers and meet new academic demands if they were unable to master early developmental tasks during preschool (Bub, McCartney, & Willet, 2007; Gutman, Sameroff, & Cole, 2003; McClelland, Acock, Piccinin, Rhea, & Stallings, 2013). Therefore, understanding how to promote resilience in preschool-aged children is important to promote adaptive functioning and early academic success. However, the majority of resilience research has focused on middle childhood (Jaffee, Caspi, Moffitt, Polo-Tomas, & Taylor, 2007), and consequently we know little about resilience in early childhood.

One of the most consistent predictors of resilience is parental support (Masten et al., 1990). Supportive and responsive caregiving is associated with the development of emotion regulation, social skills, and academic competence (Masten & Coatsworth, 1998) and fewer aggressive behaviors in children exposed to adversity (Eisenberg et al., 2005). Prior research on resilience typically has assessed parental

support broadly and provides little information about specific parenting behaviors that foster resilience in children. The goal of this study was to identify specific parenting practices associated with resilience in preschoolers from high-risk families in order to inform the development of more effective prevention programs.

Resilience in Preschool Children

A prominent conceptualization of resilience defines healthy development as the mastery of age specific developmental tasks or milestones (Masten & Coatsworth, 1998; Masten, Cutuli, Herbers, & Reed, 2009). Project Competence, a ground-breaking study of resilience, identified key domains of development and developmental tasks or milestones that are expected to be mastered at certain ages (Masten, 2004; Masten, Burt, & Coatsworth, 2006; Masten & Coatsworth, 1998; Sroufe, 1979). Developmental tasks that children are expected to master during the preschool period include increasing emotion regulation, learning to play with peers, and readiness for formal schooling (Centers for Disease Control and Prevention, 2016; Masten & Coatsworth, 1998; Masten et al., 1995). Children who do not successfully accomplish these developmental tasks tend to experience more difficulties in school and in developing healthy relationships in preschool and later on in life (for a review see Ladd, 2005), which is known as a developmental cascade effect (Masten, 2014; Masten & Cicchetti, 2010; Masten, Herbers, Cutuli, & Lafavor, 2008; Masten et al., 2005).

Emotion regulation. Emotional regulation is one of the primary regulatory systems developing during the preschool years. Preschoolers exhibit increasing awareness and understanding of emotions and growing ability to manage heightened levels of pleasant and unpleasant emotions, inhibit undesirable impulses and behavior, and recover from emotional arousal and distress (Kopp, 1989; Posner & Rothbart, 2000). The ability to recover from emotional challenges also promotes more effective coping skills to handle stress and negative experiences. Furthermore, emotion regulation has been shown to relate to children's social, academic, and personal functioning (Gross & Muñoz, 1995). For instance, children who learn effective strategies to manage their emotional arousal are more likely to regulate affect, interact with peers, pay attention in school, and control behaviors more successfully. Emotion regulation is especially important for children who experience frequent and intense negative affect from exposure to stress and

adversity (Eisenberg et al., 1997). Children's emotion regulatory abilities develop primarily through transactional exchanges with their environment, especially those with their primary caregiver (Luthar, 2006; Yates, Egeland, & Sroufe, 2003). For example, through modeling and teaching, caregivers constantly influence children's emotional behaviors by either supporting or altering emotional expressions so that they are appropriate for the situation (Cole, 1986).

Social competence. Social competence refers to the ability to successfully get along with peers and maintain friendships (Denham et al., 2003; Howes, 1987). This requires the capacity to assess and understand others' behavioral, cognitive, and affective states (McCabe & Altamura, 2011). Becoming more competent at interacting and managing their behavior and emotions enables children to engage and interact with others more successfully. Examples of social skills during the preschool years include listening, communicating, taking turns, seeking help, and making friendships with others (Denham, 2006; Payton et al., 2000). Positive interactions with peers also predict mental health and well-being during preschool and into grade school years (Denham & Holt, 1993; Denham et al., 2003). Likewise, healthy relationships with peers contribute to children's academic competence (for a review see Ladd, 2005).

School readiness. School readiness refers to the cognitive, emotional, and social skills needed to learn effectively in a formal academic context, such as following directions, sitting still, paying attention, and completing tasks (Bierman, Nix, Greenberg, Blair, & Domitrovich, 2008; Blair, 2002). Initial school readiness skills further allow children to develop early academic skills, such as emergent literacy, numeracy, and oral language skills, which contribute to initial school adjustment and reading comprehension development (Lonigan, Burgess, & Anthony, 2000). Early school success is largely dependent on children's readiness to learn when entering school, and, therefore, considered one of the most crucial developmental tasks that preschool-aged children need to master (Connell & Prinz, 2002; Lemelin et al., 2007).

Even though resilience is defined by the presence of healthy functioning, many studies have operationalized resilience as the absence of symptomatology in children. In fact, a recent review found that two-thirds of studies of resilience in children exposed to violence used measures of symptomatology as their only measure of adjustment, with low levels representing more adaptive and healthy functioning (Houston & Grych, 2015). Although low levels of pathology and a lack of problem behaviors are important

indicators of healthy functioning, they are not synonymous with the presence of health (Grych, Hamby, & Banyard, 2015). Luthar (2006) highlights the importance of defining positive outcomes across multiple dimensions because "overly narrow definitions can convey a misleading picture of success in the face of adversity" (p.8). For instance, children who displayed high functioning in one domain of competence exhibited significant differences in their level of competence in other domains of adjustment (Anthony et al., 2005; Luthar, 1991; Luthar, Doernberger, & Zigler, 1993). These findings suggest that resilience is a multidimensional construct and multiple areas of child adjustment need to be assessed, in addition to behavioral problems, so that potential domains of competence are not overlooked.

The Role of Caregivers

Research has consistently demonstrated the relationship between parental support and positive outcomes during childhood (Aken & Riksen-Walraven, 1992; Amato & Fowler, 2002; Harper, Brown, Arias, & Brody, 2006). Most of these studies assess parental support broadly, in terms of "warmth" or "supportiveness" (Herman & McHale, 1993; Mistry, Benner, Biesanz, Clark, & Howes, 2010), and it is not clear which specific parenting practices are associated with more adaptive functioning and development in children exposed to adversity. Parents and other caregivers have a fundamental role in developing children's regulatory skills, which in turn can buffer the effects of adversity. Starting as infants, children rely on caregivers to learn how to display and regulate their own emotions and behavior (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Masten, 2014; Masten & Coatsworth, 1998). Through the use of different emotion socialization practices, including caregivers' expression, discussion, and reaction to children's emotions, caregivers scaffold children's developing capacities (Eisenberg, Cumberland, & Spinrad, 1998; Lengua, Honorado, & Bush, 2007; Yates et al., 2003). Coregulation has also shown to promote children's executive functioning, social skills, and academic competence (Herbers, Cutuli, Supkoff, Narayan, & Masten, 2014; Masten, 2014). For instance, when caregivers respond to children's signals to meet their physical, behavioral, and emotional needs, the dyad is engaging in coregulation relationship processes, in which they both alter their behaviors in response and in anticipation of each other's behavior (Fogel, 1993; Herbers et al., 2014).

Validation of emotion has also been conceptualized as emotion coaching behavior. Emotion coaching includes parental awareness, willingness to discuss, ability to validate children's emotions, and the ability to provide guidance on how to regulate different emotional experiences (Gottman, Katz, & Hooven, 1997). Preschoolers also demonstrate better self-regulation (Brophy-Herb, Stansbury, Bocknek, & Horodysnski, 2012) and emotional understanding (Denham, Zoller, & Couchoud, 1994) when parents engage in more validating emotion coaching behavior. Emotion coaching behavior has also been identified as having a buffering effect between emotion regulation and externalizing behavior (Dunsmore, Booker, & Ollendick, 2013). On the contrary, invalidating or unsupportive responses to children's expression of emotion may cause children to inhibit or internalize their emotions over time, which can result in greater problems in terms of symptomatology and maladaptive functioning (Fabes, Leonard, Kupanoff, & Martin, 2001; Lunkenheimer, Shields, & Cortina, 2007). Emotional validation has been shown to predict children's development of emotional awareness (Lambie & Lindberg, 2016), which has been shown to influence children's development of emotional and social competence (Katz, Hessler, & Annest, 2007), and lower levels of internalizing and externalizing behaviors (Zeman, Shipman, & Suveg, 2002). This suggests that early experiences expressing and discussing emotion with caregivers can have a significant impact on overall child development during the preschool years, as well as later on in life, when children receive emotional validation. However, current research has not explored how parental validating and invalidating behaviors both relate to the development resilience when exposed to adversity in early childhood.

Present Study

Early exposure to adversity can negatively impact a child's emotional, social, and academic development in early childhood, and therefore identifying factors that can promote resilience in high risk preschoolers could have significant long-term effects on their development and inform the development of future intervention and prevention programs with high-risk preschoolers and their caregivers. The current study used multiple sources of data, including observation and self-reports from caregivers and teachers, to identify parenting behaviors associated with resilience in preschoolers exposed to adversity. Resilience was assessed in multiple domains of adjustment (Masten, 2014; Masten & Tellegen, 2012), including effective emotion regulation skills, social competence with peers, school readiness, and low levels of internalizing

and externalizing behaviors. In order to identify specific parenting behaviors associated with positive adjustment and well-being, parenting behaviors were measured through both observational and self-report measures. Observational measures are considered a gold standard in developmental behavior research (Zeman, Klimes-Dougan, Cassano, & Adrian, 2007) because they capture both verbal and non-verbal behaviors. Self-reports are valuable for assessing parents' subjective perceptions of their caregiving behavior in order to better understand how parental beliefs are related to child competence and functioning. These indicators of parenting were then used to examine the association between parenting behaviors and resilient outcomes in preschoolers.

Four research questions were investigated in the study:

1. a) Do parenting behaviors relate to resilience in preschoolers exposed to adversity? Validating behaviors, parental warmth, and emotion coaching are expected to be positively associated with resilience in preschoolers exposed to adversity, while invalidating parenting behaviors will be negatively associated.

   b) After accounting for parental warmth, are parenting behaviors uniquely related to resilience? Validating behaviors and emotion coaching will be uniquely and positively related to resilience after accounting for parental warmth, whereas invalidating behaviors will be negatively related to resilience.
2. Are parenting behaviors associated with the individual domains of resilience (i.e., emotion regulation, social competence, school readiness, and internalizing/externalizing behaviors)? Validating behaviors and emotion coaching are expected to be positively associated with emotion regulation, social competence, and school readiness, and negatively associated with behavioral problems. Invalidating behaviors are expected to be negatively associated with emotion regulation, social competence, and school readiness, and positively associated with behavioral problems.
3. Do parenting behaviors moderate the relationship between adversity and resilience in preschoolers? High emotion coaching, high validating behaviors, and low invalidating behaviors will serve as protective factors, in which preschoolers will demonstrate greater resilience when exposed to higher amounts of adversity.

Method

Participants

Participants were 124 child-caregiver dyads from Next Door Head Start programs in Milwaukee, WI. A detailed description of sample characteristics can be found in Table 1. Child participants from grades K3 through K5 (51% male) ranged from 3-6 years of age (M= 3.96) and were predominantly Black or African American (93%) with smaller numbers identifying as multiracial (6%) and Latino or Hispanic (1%). Primary caregiver participants were between the ages of 19 and 69 years (M = 32) were predominately female (85.5%) and identified as primarily Black or African American (91%), with smaller numbers identifying as multiracial (5%), White (2%), and Latino or Hispanic (2%). Most caregivers had earned a high school or higher educational degree (94%), and only three reported being the child's primary caregiver for less than six months. A majority of caregiver participants were the child's mother (77%), with smaller numbers identifying as the child's father (13%), grandmother (6%), grandfather (2%), and aunt (2%). Approximately 40% of children were reported by caregivers to have two or more primary caregivers, including fathers (33%), grandmothers (12%), and grandfathers (5%). All families were documented by Head Start programs to have incomes below federal poverty guidelines. Caregivers were provided a twenty-dollar gift card and a certificate of completion in exchange for their participation.

Procedure

Children at three Next Door preschools were recruited through informational flyers sent home to caregivers with a description of the study's purpose and methods. Caregivers who were interested in participating returned an interest form with their name, child's name, child's age, and phone number. A graduate research assistant contacted and scheduled interested caregivers a day and time for child-caregiver dyads to participate in a one-time session at their child's school. After informed consent was obtained, caregivers engaged in the *Parent-Child Emotion Interaction Task* (PCEIT; Shipman & Zeman, 1999) with their child, which was videotaped and used to assess caregivers' parenting behaviors and responses toward children. Afterwards, caregivers privately completed a series of questionnaires regarding child, parent, and home environment variables. Following participation, children's teachers were also asked to complete

several measures regarding the child. Research assistants, comprised of graduate students in clinical psychology and advanced undergraduate psychology students, worked with participants to complete all measures. To ensure confidentiality, each child-caregiver dyad was assigned an identification (ID) number and identifying information was removed from their data. All procedures were approved by the university's institutional review board.

Table 1

Demographic Characteristics of Sample

Characteristic	*n*	%
Child Gender		
Male	63	50.8
Female	61	49.2
Child Age		
3 years	43	34.7
4 years	48	38.7
5 years	28	22.6
6 years	5	4.0
Child Grade		
K3	55	44.4
K4	52	41.9
K5	17	13.7
Child Race		
Black or African American	115	92.7
Hispanic/Latino(a)	1	.8
More than one race	8	6.5
Caregiver Gender		
Male	18	14.5
Female	106	85.5
Caregiver Age		
19-24 years	25	10.9
25-34 years	62	62.2
35-45 years	22	18.5
46-69 years	10	8.4
Caregiver Race		
Black or African American	111	91.0
Hispanic/Latino(a)	2	1.6
More than one race	6	4.9
White	3	2.5
Highest Level of Education		
Less than high school	7	5.7
High School Diploma/GED	78	63.4
Associates Degree	24	25.2
Bachelor's Degree	8	6.5
Master's Degree	6	4.9

Measures

Parenting measures.

The Parent-Child Emotion Interaction Task (PCEIT; Shipman & Zeman, 1999) is an observational procedure that assesses caregivers' responses to children's emotion. Children were asked to "talk with your (mom/dad/grandparent) about a time that you felt ___ (i.e., happy, angry, sad)." Caregivers were instructed to respond to their child as they normally would, and they were encouraged to help their child think of a time to discuss if the child had trouble thinking of a specific instance. Dyads were asked to talk about each of the three emotions, which were presented in random order for each dyad. These discussions lasted between one to five minutes, with the average length of conversation lasting about two and half minutes for each of the three emotions.

The PCEIT was videotaped and coded for caregivers' validating and invalidating responses using the PCEIT Global Coding Scales (Shipman, Fitzgerald, & Torres, 2015). These scales measure caregiver validation and invalidation separately on two seven-point scales for each emotion, with higher scores indicating higher levels of validation or invalidation, respectively. They are global measures of validation and invalidation that take into account both the frequency and intensity of verbal and non-verbal behaviors. Validating behaviors include emotion focused listening skills (e.g., repeat/rephrase the child's words), empathetic understanding of the child's emotional experiences (e.g., 'I would feel sad too if that happened to me'), and supportively helping children understand and cope with their feelings (i.e. emotion coaching skills; e.g., 'Is there anything that helped you feel better/less scared when I was at the store?'). Invalidating behaviors include those that minimize or dismiss children's unpleasant emotions (e.g., 'You're okay. That's not worth getting sad over'), express disbelief or doubt about an emotional experience (e.g., 'Really!? You felt mad when that happened!?'), or criticize or blame children for their feelings (e.g., 'Well, if you had done your homework then your dad wouldn't have yelled at you.').

In order to be more applicable for preschool-aged children, the current coding scales were modified by the measure's authors from previous scales (Schneider & Fruzzetti, 2002) initially developed with a sample of 5-12 year-old children and their mothers (Schneider & Shipman, 2005; Shipman et al., 2007). Past research supports the interrater reliability and construct validity of this coding system

(Schneider & Shipman, 2005). Separate scores were obtained for validation and invalidation of child happiness, sadness, and anger by summing scores across the three emotions, with possible scores ranging from 0 to 18 for validation and invalidation scales.

The PCEIT interactions were coded by the investigator and a research assistant. Coding reliability among coders was checked by having 20% of the videos double coded. An interrater reliability analysis was calculated by emotion type using intra-class correlation coefficients (ICC) and indicated high levels of agreement (validation, ICC single score range = .97 -.98; invalidation, ICC single score range = .97-1.00). The coders maintained reliability within one point on all scales. Discrepancies between coders' scores (i.e. a difference of two or more points) for a particular dyad were addressed by the coders watching the session together and agreeing upon new scores.

Parenting was also measured with two self-report questionnaires. Caregiver *emotion coaching behavior* was measured with a subscale of the Emotion Related Parenting Styles (ERPS; Hakim-Larson, Parker, Lee, Goodwin, & Voelker, 2006). The emotion coaching subscale consists of 5 items measured using a 5-point Likert scale from 1=Always false to 5=Always true. Responses were summed to create a total score representing emotion coaching behavior. Sample items include "when my child gets angry, my goal is to get him or her to stop" and "when my child is sad, I try to help him or her figure out why the feeling is there." This scale has demonstrated good internal consistency with alpha of .80 (Paterson et al., 2012). In the current sample, this scale demonstrated a good internal consistency with alpha of .76 for the emotion coaching subscale.

Caregiver-child relationship was assessed using the *Parental Acceptance-Rejection Questionnaire* (PARQ; Rohner, Saavedra, & Granum, 1991). This is a 20-item self-report measure completed by caregivers to assess parental warmth and affection. Items are rated on a four-point Likert-type scale from 1=Almost Never True to 4=Almost Always True. Responses were summed to create a total score representing parental warmth and affection, with higher scores indicating greater warmth and affection. Sample items include, "I make my child feel proud when he/she does well" and "I make my child feel what he/she does is important." The PARQ has demonstrated strong internal consistency with both mothers and fathers ranging from an alpha of .88 to .91 (Cummings, Keller, & Davies, 2005). The PARQ demonstrated strong internal consistency with an alpha of .90 in the current sample.

Resilience measures.

Resilience was conceptualized as healthy functioning in the face of adversity and operationalized by assessing four developmental tasks that are salient during the preschool years (Masten, 2004; Masten et al., 1990; Masten & Coatsworth, 1998; Masten & Powell, 2003). Caregivers and teachers completed measures of emotion regulation, social competence, school readiness, and behavioral problems. These measures were combined into a global composite using the "summative" approach (Luthar & Cushing, 1999, p. 144) used in other studies of resilience (Banyard & Williams, 2007; Cicchetti & Rogosch, 2007). Participants were given a score of 0 = low level competence (scores below the 33rd percentile), 1 = average level competence (scores between the 33rd and 67th percentile), or 2 = high level competence (scores above the 67th percentile) on the caregiver and teacher scales in each domain. These scores then were added together to create an overall resilience composite that could range from 0 to 16, with higher numbers indicating better adjustment. As commonly found in research assessing parent and teacher perspectives of child adjustment, caregiver and teachers reports of resilience in each domain were weakly correlated *(rs* ranged from .18 to .24), and treated as separate indicators.

Emotion regulation. Child emotion regulation was assessed using caregivers' responses on the Emotion Regulation Checklist (ERC; Shields & Cicchetti, 1997) and the emotion regulation subscale on the Preschool Behavioral and Emotional Rating Scale (PreBERS; Epstein & Synhorst, 2008). Due to a moderate correlation between measures (r = .54, p < .001), responses on the ERC and PreBERS emotion regulation subscale were converted to z-scores and combined to represent child emotion regulation per the caregiver. The ERC is a 24-item self-report measure with two subscales: emotion regulation, which assesses processes central to adaptive regulation (e.g. "can recover quickly from disappointment or distress; doesn't pout or remain gloomy, anxious or sad after emotionally distressing events), and negativity/lability, which represents negative affect and mood lability (e.g. "exhibits mood swings; it is hard to guess how my child will feel about something because they seem to have positive feelings one minute, and negative feelings the next). Caregivers responded to items using a 4-point scale that ranged from (1) "rarely/never" to (4) "almost always." Responses were reverse scored when appropriate and summed to produce a total score representing effective emotion regulation abilities. Sample items include "can say when s/he is

feeling sad, angry or mad, fearful or afraid," and "is prone to disruptive outbursts of energy and exuberance." The ERC has demonstrated good internal consistency in a sample of parents of preschoolers (alpha = .79, Graziano, Slavec, Hart, Garcia, & Pelham, 2014), and demonstrated strong internal consistency, with an alpha of .85, in the current sample. Caregivers and teachers also completed the 13-item emotion regulation subscale of the PreBERS. The PreBERS is a standardized and norm-referenced test that assesses child emotional and behavioral strengths. Respondents indicated how true a statement is for a child by endorsing (0) "not at all," (1) "not much," (2) "like," or (3) "very much." Responses were summed to create a total score representing effective emotion regulation abilities. Sample items include "controls anger toward others" and "reacts to disappointments calmly.". The PreBERS has shown strong internal consistency ranging from .84 and .98 (Epstein, Synhorst, Cress, & Allen, 2009), and test-retest reliability coefficients over .80 (Cress, Epstein, & Synhorst, 2010). In the current sample, the emotion regulation subscale demonstrated strong internal consistency with alphas of .89 for caregivers and .94 for teachers.

Social competence. Child social competence skills were assessed using the social confidence subscale of the PreBERS (Epstein & Synhorst, 2008). This subscale includes 9 items, in which caregivers and teachers indicated how true a statement is for a child by endorsing (0) "not at all," (1) "not much," (2) "like," or (3) "very much." Responses were summed to create a total score representing social competence abilities, with higher scores indicating greater social skills. Sample items include "asks others to play" and "takes turns in play situations." In the current sample, the social confidence subscale demonstrated strong internal consistency with alphas of .87 for caregivers and .85 for teachers.

School readiness. Child school readiness skills were assessed using the PreBERS' school readiness subscale (Epstein & Synhorst, 2008). This subscale includes 13 items, in which caregivers and teachers indicated how true a statement is for a child by endorsing (0) "not at all," (1) "not much," (2) "like," or (3) "very much." Responses were summed to create a total score representing school readiness, with higher scores indicating greater academic abilities. Sample items include "understands complex sentences" and "pays attention to tasks." In the current sample, the school readiness subscale demonstrated strong internal consistency with alphas of .91 for caregivers and .93 for teachers.

Behavioral problems. Child behavioral problems were assessed using caregiver reports on the Anxious/Depressed, Withdrawn, and Aggressive Behavior subscales of the Child Behavior Checklist for

Ages 1½-5 (CBCL/1.5-5; Achenbach & Rescorla, 2000) and teacher reports on the Teacher Report Form for Ages 1½-5 (TRF/1.5/5; Achenbach & Rescorla, 2000). Responses were summed to create a total score of caregiver and teacher reported child behavioral problems. Respondents indicated how true a statement is "now or within the past 2 months" for a child by endorsing (0) "not true," (1) "somewhat or sometimes true," or (2) "very true or often true." Sample items for each of the three scales include, respectively, "feelings are easily hurt," "seems unresponsive to affection," and "hits others." The CBCL and TRF are two of the most well-normed measures of child adjustment with strong psychometric properties, including reliability and validity (for a review, see Achenbach & Rescorla, 2000). In the current sample, the combined subscales demonstrated strong internal consistency with alphas of .92 for the CBCL and .96 for the TRF.

Adversity measures.

The following measures were completed by caregivers to assess different types of adversity experienced by the child in and outside the home. They were combined to create a composite variable representing cumulative risk experienced by the family (Appleyard, Egeland, van Dulmen, & Alan Sroufe, 2005; Brady & Donenberg, 2006; Herrenkohl & Herrenkohl, 2007). The composite variable was created by summing the following three measures of adversity, with possible scores ranging from 0 to 46.

Interparental aggression was measured using a shortened version of the Conflict Tactic Scale Short Form (CTS2S; Straus & Douglas, 2004). This is a 16-item scale with four subscales, including psychological aggression, assault, injury, and sexual coercion, that assess mild to severe victimization and perpetration of partner abuse within the past year. Both perpetration and victimization experiences were assessed, in which caregiver responses ranged from (0) "never" to (6) "more than twenty times" or "not in the past year, but has happened before." Sample items include "threw or smashed or hit or kicked something," and "insulted or swore at each other." Concurrent validity with the corresponding Conflict Tactics Scale 2 (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) scales were good, with correlation coefficients ranging from .65 to .94 (Straus & Douglas, 2004). Each scale was reduced to two dichotomous items (i.e. yes (1) or no (0)) to assess the presence of either victimization and perpetration for each of the four types of interparental violence that children may have been exposed to. This resulted in a

total of eight items that were summed to create a total score that could range from 0 to 8 to represent interparental aggression. The total number of items were reduced in the computed composite variable in order to limit the influence of interparental aggression compared to the other two measures of adversity experienced by the child.

Exposure to violence was assessed using the Juvenile Victimization Questionnaire (JVQ; Finkelhor, Hamby, Ormrod, & Turner, 2005). Subscales included conventional crime, peer and sibling victimization, past sexual victimization, and witnessing and indirect victimization; with a total of 25 items. Each item was measured with a yes (1) or no (0) response. Responses were summed to create a total score representing exposure to violence. Sample items include, "In real life, was your child in a place where he/she could see or hear people being shot, bombs going off, or street riots?" The JVQ demonstrated strong internal consistency with an alpha of .83 in the current sample.

Exposure to traumatic life events were assessed using the Childhood Trust Events Survey (CTES; Pearl, 2000), which is a 13-item measure with three response choices, yes (1), no (0), or don't know. The CTES is a simple index to measure caregiver-reported trauma events that are experienced by children and have the potential to cause injury or death. Responses were summed to create a total score representing exposure to traumatic life events. Sample items include, "Was your child ever in a really bad accident, such as a serious car accident," and "was your child ever completely separated from his/her parent(s) for a long time, such as going to a foster home, the parent living far apart from him/her, or never seeing the parent again?" The CTES demonstrated low internal consistency with an alpha of .48 in the current sample. However, due to the broad range of events assessed, it is unlikely these items would demonstrate high internal consistency since experiencing one trauma does not increase the likelihood of experiencing a second unrelated trauma, such as being in a car accident and being attacked by an animal.

Demographic characteristics.

Demographic information was obtained from caregivers using a 14-item self-report form. Information regarding the child included gender, age, grade, and race (i.e., "American Indian/Alaska Native," "Asian," "Black/African American," "White," "Hispanic/Latino/a," "Native Hawaiian/Other Pacific Islander," "More than one race," and "Unknown"). Caregiver information included age, race (as

described for child), highest educational degree, current job, relationship to child, length of time as child's caregiver, and household size.

Results

Descriptive Analyses

Descriptive statistics for each of the parenting variables, adversity composite, indicators of resilience, and resilience composite can be found in Table 2. According to caregivers, 90% of preschool participants were exposed to at least one type of adversity during their lifetime (M = 5.55, SD = 4.53), and nearly half experienced more than four types of adversity (see Table 3). On average, caregivers reported at least one instance of interparental aggression (M = 1.83, SD = 1.93), exposure to violence (M = 2.47, SD = 3.09), and exposure to a traumatic life event (M = 1.35, SD = 1.37). As shown in Table 4, the most common types of adversities reported included psychological interparental aggression (60%), being physically hit by another child (48%), having a family member put into jail/prison (32%), and having a close family member die unexpectedly (31%).

Table 2

Descriptive Statistics for Study Variables

Variables	*M*	*SD*	Range	α
Parental Warmth	75.55	5.6	32-80	.90
Parental Validation	7.79	2.15	1-14	.73
Parental Invalidation	6.64	1.35	3-12	.53
Emotion Coaching	22.11	3.52	5-25	.76
Adversity	5.55	4.53	0-23	.80
Resilience Composite	8.44	4.06	0-16	
Resilience Indicators-Caregiver				
Emotion Regulation	0.00	1.74	-5-4	.90
School Readiness	31.37	6.38	3-39	.91
Social Competence	22.30	4.63	3-27	.87
Behavioral Problems	15.06	10.46	0-56	.92
Resilience Indicators-Teacher				
Emotion Regulation	24.92	7.57	0-39	.94
School Readiness	27.92	7.25	8-39	.93
Social Competence	19.89	4.38	7-27	.85
Behavioral Problems	15.27	14.57	0-57	.96

Table 3

Prevalence of Adversities Included in the Adversity Composite

Number of Adversities	*n*	*%*
0	12	9.7
1	6	4.8
2	14	11.3
3	18	14.5
4	15	12.1
5	14	11.3
6	3	2.4
7	5	4.0
8	11	8.9
9	4	3.2
10	6	4.8
11	3	2.4
12	2	1.6
13	1	0.8
14	3	2.4
15	2	1.6
16	2	1.6
17	1	0.8
19	1	0.8
23	1	0.8

Table 4

Prevalence of the 20 Most Common Adversities Reported

	Variable	*Total Sample (N = 124)*
1	Verbal aggression between caregivers (primary caregiver as perpetrator)	75 (60%)
2	Verbal aggression between caregivers (primary caregiver as victim)	68 (55%)
3	Peer physical aggression	60 (48%)
4	Family member put in jail/prison	40 (32%)
5	Family member died unexpectedly	38 (31%)
6	Vandalism	29 (23%)
7	Robbery	22 (18%)
8	Household theft	22 (18%)
9	Long-term separation from parents	21 (17%)
10	Personal theft	21 (17%)
11	Physical assault between caregivers (primary caregiver as victim)	20 (18%)
12	Family member mentally ill	19 (17%)
13	Coerced by peers	17 (15%)
14	Serious/painful medical treatment	14 (13%)
15	Attacked on purpose without a weapon	14 (13%)
16	Verbally harassed by peers	14 (13%)
17	Excluded by peers	13 (12%)
18	Attacked on purpose with a weapon	12 (11%)
19	Community violence	12 (11%)
20	Family member murdered	10 (9%)

Despite the high rate of exposure to adversity, 85% of these children demonstrated a high level of competence in at least one domain of adjustment, as reported by caregivers (M = 4.17, SD = 2.61) and teachers (M = 4.27, SD = 2.47), while 23% of the children demonstrated resilience in at least three domains. According to caregivers and teachers, children were most likely to demonstrate resilience in the social competence domain (64%). On average, caregivers rated children as demonstrating high levels of emotion regulation (M = 3.21 on the ERC using a scale of 1-4 and M = 2.14 on the PreBERS using a scale from 0-3), social confidence (M = 2.48 on a scale from 0-3), school readiness (M = 2.41 on a scale from 0-3), and low levels of behavioral problems (M = 0.43 on a scale of 0-2). Relatedly, 74% of children's scores on the CBCL and TRF subscales were below the range of clinical risk. Teachers also rated children as demonstrating moderate to high levels of emotion regulation (M = 1.92 on a scale from 0-3), social

competence (M = 2.21 on a scale from 0-3), school readiness (M = 2.15 on a scale from 0-3), and low levels of behavioral problems (M = 0.36 on a scale from 0-2). Caregivers rated children as demonstrating higher average levels of emotion regulation, social competence, and school readiness than teachers on the PreBERS ($t(119) = 4.85$, $p = .001$). Children who demonstrated healthy adjustment in one domain were more likely to exhibit it in others: positive correlations were found between child emotion regulation, social competence, and school readiness, which were all negatively associated with behavioral problems (see Table 5).

Table 5

Correlation Statistics for Resilience Indicator Study Variables

Variables		1	2	3	4	5	6	7	8
	Resilience Indicators-Caregiver								
1	Emotion Regulation	-							
2	School Readiness	.73**	-						
3	Social Competence	.70**	.85**	-					
4	Behavioral Problems	-.64**	-.37**	-.29**	-				
	Resilience Indicators-Teacher								
5	Emotion Regulation	.12	.06	-.06	-.14	-			
6	School Readiness	.11	.26**	.17	-.15	.52**	-		
7	Social Competence	.08	.15	.15	-.05	.46**	.69**	-	
8	Behavioral Problems	-.23*	-.13	-.01	.24**	-.75**	-.43**	-.36**	-

*$p < .05$. **$p < .01$. ***$p < .001$.

On average, caregivers reported high levels of parental warmth (M = 75.55, SD = 5.6) and emotion coaching (M = 22.11, SD = 3.52). Caregivers were also observed to engage in moderate to high levels of invalidating (M = 6.64, SD = 1.35) and validating (M = 7.79, SD = 2.15) behaviors. Caregivers who reported higher parental warmth also indicated higher levels of emotion coaching ($r = .51$, $p = .001$). Self-reports of parental warmth and emotion coaching were not significantly associated with either validating or invalidating behaviors.

Correlational analyses were conducted between demographic variables and the parenting behaviors, indicators of resilience, resilience composite, and adversity composite. Caregivers exhibited

more invalidating behaviors with older children (r = .25, p =.01). Older children also demonstrated higher levels of emotion regulation (r = .25, p =.04), according to caregivers. Although the gender of caregivers was significantly associated with parental warmth, male and female caregivers did not demonstrate significantly different levels of warmth (t(17.75) = -1.66, *ns*). Caregivers with higher educational degrees demonstrated higher levels of validation (r = .20, p =.03). Teachers reported that girls demonstrated higher emotion regulation abilities than boys (t(120) = -3.42, p =.001).

Research Question 1a: *Do parenting behaviors relate to resilience in preschoolers exposed to adversity?*

Correlational analyses were conducted between the resilience composite and validating behaviors, invalidating behaviors, emotion coaching, and parental warmth (see Table 6). Resilience was positively correlated with emotion coaching and parental warmth, but not related to validating and invalidating behaviors.

Research Question 1b: *After accounting for parental warmth, are parenting behaviors uniquely related to resilience?*

A hierarchical multiple regression analysis was conducted using the resilience composite as the outcome variable to examine whether any of the parenting behaviors uniquely predict resilience after accounting for global parental warmth. Parental warmth (PARQ) was entered in the first step of the model and explained 10.5% of the variance in resilience. In the next step, the validating, invalidating, and emotion coaching behaviors were included, and together added significantly to the prediction of resilience, explaining an additional 5.5% of the variance. As Table 7 shows, emotion coaching uniquely predicted resilience beyond the effects of parental warmth, but validating and invalidating behaviors did not.

Table 6

Correlation Statistics for Adversity, Parenting, and Resilience Study Variables

		Caregiver				**Teacher**			
	Resilience Composite	Emotion Regulation	School Readiness	Social Competence	Behavioral Problems	Emotion Regulation	School Readiness	Social Competence	Behavioral Problems
Adversity Exposure	-.07	-0.1	-.06	.03	.23**	-.01	.12	.13	.02
Parental Warmth	.36***	.38***	.44***	.39***	-.16	.14	.16	.09	-.13
Parental Validation	.11	.05	.03	.06	-.01	.20*	.08	.08	-.16
Parental Invalidation	.03	.01	.10	-.07	-.04	.18	.09	.01	-.06
Emotion Coaching	.36***	.46***	.54**	.51**	-.13	.05	.12	-.02	-.15

**$p < .01$. ***$p < .001$.

Table 7

Summary of Hierarchical Multiple Regression Analysis for Variables Predicting Resilience

	Model 1			Model 2		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Parental Warmth	.25	.07	.32**	.14	.08	.18
Parental Validation				.11	.16	.06
Parental Invalidation				.12	.26	.04
Emotion Coaching				.30	.11	.26**
R^2		.08			.12	
F for change in R^2		13.83***			5.48***	

*$p < .05$. **$p < .01$. ***$p < .001$.

Research Question 2: *Are parenting behaviors associated with the individual domains of resilience (i.e., emotion regulation, social competence, school readiness, and internalizing/externalizing behaviors)?*

Separate multivariate multiple regression analyses were conducted to evaluate whether parenting behaviors were associated with the individual domains of resilience, as reported by caregivers and teachers. Validating behaviors, invalidating behaviors, and emotion coaching were entered as the independent variables and the separate domains of resilience (emotion regulation, social competence, school readiness, and behavioral problems) as the dependent variables. Results for these analyses are presented in Table 8 and Table 9 for caregiver and teacher reports, respectively. For caregiver reports, emotion coaching (Wilks' Lambda = .68, $F(4, 112) = 13.29$, $p = .001$, $\eta^2 = .32$) and invalidating behaviors (Wilks' Lambda = .88, $F(4, 112) = 3.66$, $p = .01$, $\eta^2 = .12$) were significant at the multivariate level, whereas validating behaviors (Wilks' Lambda = .99, $F(4, 112) = .33$, *ns*) were not significant. Follow-up univariate analyses indicated that emotion coaching positively predicted emotion regulation ($F(1, 115) = 29.77$, $p = .001$, $\eta^2 = .21$), school readiness ($F(1, 115) = 47.24$, $p = .001$, $\eta^2 = .29$), and social competence ($F(1, 115) = 42.81$, $p = .001$, $\eta^2 = .27$).

For teacher reports, emotion coaching (Wilks' Lambda = .94, $F(4, 111) = 1.88$, *ns*), validating behaviors (Wilks' Lambda = .97, $F(4, 111) = .99$, *ns*), and invalidating behaviors (Wilks' Lambda = .94, $F(4, 111) = 1.65$, *ns*) were not significant at the multivariate level.

Table 8

Summary of Multivariate Regression Analysis for Parenting Behaviors Predicting Caregiver-Reported Domains of Resilience

Multivariate	*df*	*F*	*Wilks' λ*	*η2*
Parental Validation	4, 112	.33	.98	.01
Parental Invalidation	4, 112	3.66***	.88	.12
Emotion Coaching	4, 112	13.29***	.62	.32
Emotion Regulation	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	.04	1, 115	.02	.001
Parental Invalidation	.01	1, 115	.002	.001
Emotion Coaching	75.22	1, 115	29.77***	.21
School Readiness	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	.59	1, 115	.02	.001
Parental Invalidation	37.66	1, 115	1.26	.01
Emotion Coaching	1414.39	1, 115	47.24***	.29
Social Competence	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	3.91	1, 115	.25	.002
Parental Invalidation	21.56	1, 115	1.40	.01
Emotion Coaching	657.55	1, 115	42.81***	.27
Behavioral Problems	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	3.59	1, 115	.03	.001
Parental Invalidation	4.10	1, 115	.04	.001
Emotion Coaching	294.77	1, 115	2.70	.02

***$p < .001$.

Table 9

Summary of Multivariate Regression Analysis for Parenting Behaviors Predicting Teacher-Reported Domains of Resilience

Multivariate	*df*	*F*	*Wilks' λ*	*η2*
Parental Validation	4, 111	.99	.97	.03
Parental Invalidation	4, 111	1.65	.94	.06
Emotion Coaching	4, 111	1.88	.94	.06
Emotion Regulation	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	203.46	1, 114	3.82	.03
Parental Invalidation	278.91	1, 114	5.23*	.04
Emotion Coaching	4.27	1, 114	.08	.001
School Readiness	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	18.67	1, 114	.36	.003
Parental Invalidation	90.07	1, 114	1.76	.02
Emotion Coaching	81.34	1, 114	1.58	.01
Social Competence	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	10.59	1, 114	.54	.01
Parental Invalidation	3.84	1, 114	.20	.002
Emotion Coaching	1.91	1, 114	.10	.001
Behavioral Problems	*Sum of Squares*	*df*	*F*	*η2*
Parental Validation	385.09	1, 114	1.91	.02
Parental Invalidation	268.21	1, 114	1.33	.01
Emotion Coaching	452.40	1, 114	2.44	.02

*$p < .05$.

Research Question 3: *Do parenting behaviors moderate the relationship between adversity and resilience in preschoolers?*

Finally, to determine if validating behaviors, invalidating behaviors, and emotion coaching moderate the relation between adversity and resilience in preschoolers, Aiken, West, and Reno's (1991) guidelines for moderation were followed. Specifically, three hierarchical linear regression analyses were conducted for validating behaviors, invalidating behaviors, and emotion coaching with resilience as the

dependent variable. The adversity composite, validating behaviors, invalidating behaviors, and emotion coaching, were centered by subtracting the mean from the sum for each variable. To test the main effect of adversity on resilience, the adversity composite was entered into the equation first. To test the main effects of parenting behaviors, validating behavior, invalidating behavior, and emotion coaching were entered into the second step of the equation. To test for interaction effects, interaction terms were created. The centered variables measuring validating behaviors, invalidating behaviors, and emotion coaching each were multiplied by the adversity composite. These interaction terms were entered into the third step of the equation. Emotion coaching demonstrated a positive direct effect on resilience ($\beta = .36$, $p = .001$), whereas validating behaviors, invalidating behaviors, and adversity did not show a direct effect on resilience. No interaction effects were found across these three analyses.

Exploratory Research Question: *Do parenting behaviors moderate the relationship between parental warmth and resilience in preschoolers?*

Moderation analyses were conducted to examine whether validating behaviors, invalidating behaviors, and emotion coaching moderated the relationship between parental warmth and resilience. In order to build upon results from the first research question, these exploratory analyses were conducted to examine whether an interaction exists between parental warmth and each of the parenting behaviors on resilience. Separate hierarchical regression analyses were conducted for the three types of parenting behaviors with resilience as the dependent variable. Across these three analyses, validating behaviors and emotion coaching were each found to significantly moderate the association between parental warmth and resilience (see Table 10).

Table 10

Summary of Hierarchical Regression Analysis for Variables Predicting Resilience

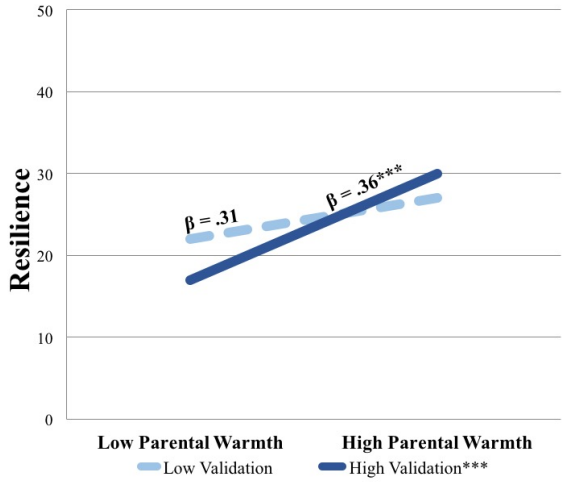
	Emotion Coaching			**Parental Validation**			**Parental Invalidation**		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Variable	β	β	β	β	β	β	β	β	β
Parental Warmth	.32***	.19	.65***	.36***	.35***	.50***	.36***	.36***	.40***
Parenting Behavior		.26**	.27**		.06	.04		.02	.05
Warmth x Behavior			.57***			.23*			.16
R^2	.10	.16	.26	.13	.13	.16	.13	.13	.15
F for change in R^2	14.01***	10.98***	13.97***	17.46***	8.92***	7.63***	17.46***	8.69***	7.01***

Note: Parental Warmth, Parental Validation, and Emotion Coaching variables were centered at their means.
*$p < .05$. **$p < .01$. ***$p < .001$.

Results examining parental validation as a moderator of the association between parental warmth and resilience indicated that parental warmth demonstrated a positive direct effect on resilience (β= .36, p = .001), whereas validating behaviors did not show a direct effect on resilience (β= .06, *ns*). The interaction between parental warmth and validating behaviors was significant (β= .23, p =.04), indicating that the effect of parental warmth on resilience depended on the level of validating behaviors. The Johnson-Neyman regions of significance (ROS) approach was used to identify the exact range of the moderator variable where the simple slopes were significantly different from zero. The ROS analysis computes the upper and lower bounds of a moderator (in this case, validating behaviors), which allows for a more precise examination of the moderating effects than the conventional approach that examines slopes at arbitrarily chosen points, such as +1/-1 *SD* (Hayes & Matthes, 2009; Preacher, Curran, & Bauer, 2006). Results from the ROS indicated the lower and upper bounds of the region of significance to be between 5.20 and 14.00 for parental validation as the moderator. Simple slopes for the association between parental warmth and resilience were tested for high validating behaviors (scores above 5.20) and low validation (scores below 5.20) separately. Higher levels of parental warmth significantly predicted resilience when validating behaviors were high (β= .36, p = .001), but not when they were low (β= .31, *ns*). Figure 1 plots the simple slopes of the interaction.

Figure 1

Interaction of Parental Warmth and Validating Behaviors in Predicting Resilience

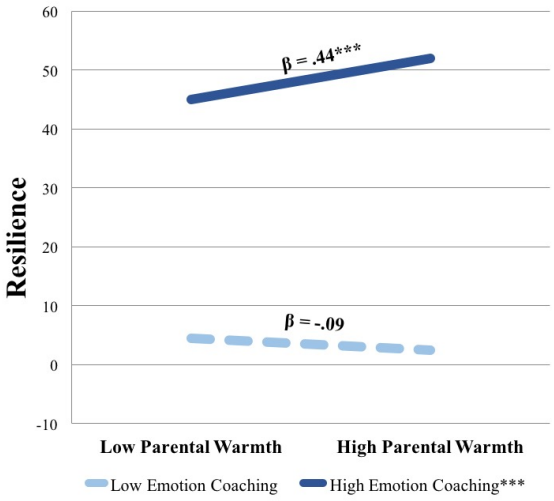


***p < .001

The analysis examining emotion coaching as moderating the association between parental warmth and resilience indicated that parental warmth (β= .32, p = .001) and emotion coaching (β= .26, p = .01) both demonstrated a positive direct effect on resilience. The interaction between parental warmth and emotion coaching was significant (β= .57, p = .001), indicating that the effect of parental warmth on resilience depended on the level of emotion coaching. Results from the ROS indicated the lower and upper bounds of the region of significance to be between 13.52 and 25.00 for emotion coaching as the moderator. Simple slopes for the association between parental warmth and resilience were explored for high emotion coaching (responses above 13.52) and low emotion coaching (responses below 13.52) separately. Higher levels of parental warmth significantly predicted resilience under high levels of emotion coaching (β= .44, p = .001), but not under low levels of emotion coaching (β= -.09, *ns*). Figure 2 plots the simple slopes of the interaction.

Figure 2

Interaction of Parental Warmth and Emotion Coaching in Predicting Resilience



***p < .001

Discussion

The present study expanded on the child resilience literature by examining the role of caregivers in fostering resilience in preschoolers exposed to adversity. By using multiple indicators of healthy

development during the preschool years to assess resilience, the study provides a more comprehensive assessment of adaptive functioning and well-being than previous studies of resilience in preschool-aged children. There has been an increasing emphasis on understanding how to promote more resilience in children exposed to adversity (Grych et al., 2015; Luthar, 2006; Masten, 2011), but very few studies have examined resilience in early childhood, a critical developmental period. The children in the study had experienced substantial levels of adversity: All families were economically disadvantaged, and caregivers reported that 90% of the preschoolers experienced at least one adverse experience during their lifetime and nearly 2/3 had been exposed to an additional 1 to 5 adverse events, such as interparental aggression, community violence, peer victimization, and loss of a family member. Despite experiencing high levels of adversity, a majority of preschoolers demonstrated resilience in at least one area of competence assessed in the study (i.e., emotion regulation, school readiness, peer relationships, and behavior problems). These findings are consistent with Masten's (2001; 2014) description of resilience as "ordinary magic," in which resilience develops as a result of common and everyday practices, such as children's daily interactions with their caregivers, and does not require extraordinary resources.

Parental warmth has been identified as a protective factor for youths exposed to adversity, but it was unclear whether more specific parenting practices, beyond "warmth" and "supportiveness," are associated with more adaptive functioning and well-being. Results of this study suggest that parental validation of children's emotions and emotion coaching behavior fosters resilience in preschoolers from high-risk families. More specifically, findings demonstrated that parental warmth predicted greater levels of resilience when caregivers engaged in higher levels of emotional validation and emotion coaching. The present study builds on previous research demonstrating that parental warmth predicts better functioning in preschool aged children (Miller et al., 1993; Narayan et al., 2015; Roberts & Strayer, 1987; Waller et al., 2014) by suggesting that caregivers who are more warm and supportive can foster greater resilience by validating children's emotional experiences through a greater use of open-ended questions, reflection statements, supportive body language, and empathetically helping children cope with their feelings, as shown through the observational assessment of emotional validation.

The combined effects of parental validation, invalidation, and emotion coaching also were found to predict greater resilience after accounting for parental warmth, with emotion coaching uniquely

predicting resilience. These findings thus support emotion socialization theories proposing that emotion coaching behaviors help children to better regulate their emotions (Eisenberg et al., 1998; Gottman et al., 1997). Emotion coaching also was found to predict individual domains of resilience, including emotion regulation, social competence, and school readiness. This is consistent with prior research demonstrating that parental emotion coaching predicts better regulatory abilities in children (Brophy-Herb et al., 2012; Katz, Stettler, & Gurtovenko, 2016), which likely improves the child's ability to stay focused in class and engage in social activities with peers. Observed parental validation and invalidation were not directly related to resilience and did not moderate the effects of adversity on preschooler outcomes; however, validating behavior and emotion coaching behavior each moderated the effects of parental warmth on resilience. These data suggest that caregivers who use more emotion coaching and validating behaviors while also being warm and supportive can help preschoolers develop greater competence and well-being. These findings expand on prior research demonstrating that supportive emotion socialization patterns predict adaptive outcomes in children exposed to varying levels of risk and adversity (Zeman, Dallaire, & Borowski, 2016).

The data indicated that parenting behaviors were more strongly correlated with caregiver than teacher reports of individual resilience indicators. Caregivers and teachers reported similar rates of resilience, but the correlations between teacher and caregiver ratings for individual domains of resilience were small in magnitude, which is consistent with prior research (e.g., Gagnon, Vitaro, & Tremblay, 1992). This may be due to the differing situational contexts between home and school that result in children regulating and behaving differently with their caregivers and teachers. For instance, children may engage in fewer behavioral problems at school because the teacher is perceived as more of an authority figure who is less likely to tolerate or allow inappropriate behavior in the classroom. Preschool-aged children are likely to have less energy at home after working and playing most of the day at school, with school days lasting between four and eight hours for these preschoolers. As a result, children may display more irritable, restless, and aggressive behaviors at home with caregivers due to lower inhibition abilities.

Caregivers also may have reported higher levels of child well-being and functioning than teachers because they wanted to present their children in a positive light. Participants were told that the current study's purpose was to better understand how to promote resilience in preschool-aged children, which may

have led caregivers to rate their children more positively. Caregivers may have also rated their children as demonstrating higher levels of competence if they believed their child's behavior and abilities were a direct reflection on their parenting ability.

Previous research has demonstrated that caregiver reports of child rearing practices were related to their actual parenting behaviors assessed naturalistically (Kochanska, Kuczynski, & Radke-Yarrow, 1989). The present study limits the potential of caregivers responding in a socially desirable manner on parenting measures by assessing validating and invalidating behavior through an observational assessment focused on the child's discussion of their emotional experiences in order to reduce caregivers' awareness and concern about being evaluated during the task.

Current coding scales have been used with a similar sample of high-risk families (Shipman et al., 2007); however, the characteristics of the samples used to validate these coding schemes of parental validation and invalidation were not reported (Schneider & Shipman, 2005). As a result, it is unclear if the current coding schemes adequately capture and assess parenting behaviors demonstrated by caregivers across cultures. Prior studies have largely assessed caregivers' emotion socialization strategies with middle-class, Caucasian samples (e.g. Eisenberg, Fabes, & Murphy, 1996; Eisenberg et al., 2005; Shipman & Zeman, 1999; Zeman et al., 2002), despite research suggesting ethnic differences in caregivers' use of socialization strategies (Elkman, 1984). Adaptive parenting strategies have been shown to differ across cultures (Deater-Deckard, Dodge, Bates, & Pettit, 1996; Denham, Caal, Bassett, Benga, & Geangu, 2005), but limited empirical evidence exists demonstrating whether similar cultural differences exist in caregivers' use emotion socialization strategies. For instance, caregivers from high-risk families and some ethnic groups may demonstrate more sarcastic humor in response to children's unpleasant emotions in attempt to make the situation less distressing to their child. Future research is therefore needed to understand whether cultural differences exist in how caregivers engage in emotional validation and invalidation practices.

Only caregiver reported behaviors were directly associated with resilience; however, teachers reported that children demonstrated greater emotion regulation abilities when caregivers displayed greater emotional validation during the observational task. Teachers' reports of child emotion regulation were also strongly associated with the other three domains of resilience. In addition, emotion coaching was shown to be a unique and positive predictor of resilience when controlling for caregivers' reports of parental warmth,

which limits the likelihood that current findings were due to method-rater variance of caregiver self-reports. As a result, findings from the current study provide a better understanding of how caregiver behaviors can promote resilience in children.

Specifically, the observational assessment found that warmth and support from caregivers is associated with greater competence and well-being in children when they engage in more validating behaviors when talking with their child about pleasant and unpleasant emotional experiences. This suggests that emotional validation is not only important for the development of emotion regulation skills, but also for the development of social, academic, behavioral competence. These are critical developmental milestones that should be mastered in early childhood to foster more adaptive functioning and well-being (Masten & Coatsworth, 1998; Masten et al., 1995). Previous studies on resilience in high-risk children have primarily relied on caregiver self-reports, which limits our understanding of the different behaviors caregivers may use on a daily basis with their child. This study provides evidence that caregivers from high-risk populations are able to demonstrate an effective use of parenting skills that are critical to enhance child competence, in contrast to previous research demonstrating that caregivers who experience greater family stress exhibit more unsupportive responses towards children's emotions (Nelson, O'Brien, Blankson, Calkins, & Keane, 2009).

The present study did not find a difference between male and female caregivers' use of validating behaviors, invalidating behaviors, emotion coaching, or reports of child functioning. This is inconsistent from prior studies showing that maternal and paternal caregivers employ different emotion socialization practices in response to children's emotions (Sanders, Zeman, Poon, & Miller, 2015). However, a majority of caregivers were female in this study, and therefore further research is needed to examine potential differences between male and female caregivers' emotional validation and emotion coaching behaviors with preschool-aged children.

Previous studies have focused primarily on caregiver behavior in response to children's unpleasant feelings (Cassano, Perry-Parrish, & Zeman, 2007; Morris et al., 2011), whereas the current study assessed parenting behaviors in response both pleasant and unpleasant feelings experienced by the child and did not find a difference in average level of validating or invalidating behaviors exhibited between the three types of emotions. The current sample of caregivers demonstrated a similar level of emotional validation as

caregivers with a history of maltreatment, but a lower level of validation and comparable level of invalidation than caregivers recruited from Head Start programs without a maltreatment history (Shipman et al., 2007). Furthermore, all caregivers demonstrated at least three invalidating behaviors while talking with their child about their pleasant and unpleasant emotional experiences, which may suggest that invalidating behaviors may be the hardest to avoid. Nonetheless, children were shown to demonstrate resilience in multiple domains of functioning despite experiencing emotional invalidation from caregivers.

Clinical Implications

Understanding that emotion coaching and parental validation of emotion predicts resilience in preschoolers exposed to adversity can inform future intervention and prevention programs for high-risk preschoolers and their families. Validation and emotion coaching are parenting practices that can be specifically targeted and enhanced in caregivers who do not regularly use these skills with their children. There are a number of prevention and intervention programs targeted specifically for preschool aged children exposed to adversity, including therapeutic interventions in clinical (e.g. *Incredible Years Parenting Program,* Borden, Schultz, Herman, & Brooks, 2010; *Parent-Child Interaction Therapy*, Eyberg & Robinson, 1983; *Child-Parent Psychotherapy*, Lieberman, Van Horn, & Ippen, 2005), and school settings (*Head Start REDI Program,* Bierman et al., 2013). Although these programs have extensive empirical support, previous studies have not explicitly assessed the association between parental validation or emotion coaching and child functioning in multiple domains of adjustment.

For instance, the Incredible Years Parenting Training Program (IY) is one of the best-supported prevention programs, and it has been shown to improve child functioning and development by improving parent and child competencies (Borden et al., 2010; Reid, Webster-Stratton, & Baydar, 2004). The first fourth of the IY Parent Program for preschoolers focuses on strengthening children's social skills, emotional regulation, and school readiness skills through parent-child interaction, including the use of child-directed play to build a positive relationship, academic coaching, and social emotional coaching. IY has been shown to promote children's positive affect, social competence, problem solving skills; however, parenting behaviors are not assessed in relation to child outcomes, and program effects are only evaluated

post-intervention. As a result, it is unclear which elements of the parent training program directly promotes child competence.

Therefore, current results regarding the influence of parenting behaviors on the development of resilience in high-risk preschoolers highlight the importance of caregivers being taught specific validating and emotion coaching behaviors to promote greater resilience in their children. Specifically, programs should focus on teaching caregivers specific ways to emotionally validate their child's emotional experiences, such as using supportive tone and body language, open-ended questions, reflection statements, and helping children handle their feelings in an empathetic way.

Limitations and Future Directions

One limitation of this study is that resilience was assessed only through caregiver and teacher self-reports, and there was not a direct assessment of children's regulation, intellectual ability, or peer interactions. Although prior studies have rarely included multiple reporters of resilience, as this study did, future research could employ a direct assessment of child emotion regulation, academic skills, and behavior with peers, in addition to self-reports, to capture an even more comprehensive assessment of resilience. The caregiver-child interaction task is also brief and occurred with a researcher present, which may have influenced the participants' behaviors and did not fully capture interactions that may occur at home, in that caregivers may have behaved more appropriately and supportively toward their child than usual. The current study also did not assess teachers' emotion socialization behaviors and strategies with their students, which may further enhance children's functioning and development of resilience, especially children who spend most of their weekdays at school, such as those enrolled in the all-day and summer school programs. Additionally, the data are cross-sectional and cannot be used to assess causal relationships between caregiver behaviors and resilience in preschoolers. Future research should utilize longitudinal methods to better assess how parenting behaviors foster the development of resilience as preschoolers develop into middle childhood. The study assessed only one of the child's primary caregivers. Therefore, for children with multiple primary caregivers, it is unclear whether two or more caregivers respond to children's emotional experiences differently or how caregivers' interaction style may impact children's developmental outcomes. The current sample is also predominately composed of female,

African-American mothers, and, therefore, the results from this study are not necessarily generalizable to other demographic groups.

The current study added a unique contribution to the field of resilience by exploring specific parenting behaviors that may promote resilience in preschoolers exposed to adversity using a multi-method, multi-informant design. The measurement of resilience was multifaceted and included multiple indicators of adaptive functioning and well-being during the preschool years. By focusing on key developmental milestones that should be mastered in early childhood, as opposed to only the lack of pathology, the current study takes an important step in identifying how healthy development can be fostered in high-risk preschoolers.

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