

SOCIOCULTURAL CONTEXTS OF EMOTION SOCIALIZATION IN BIPOC FAMILIES

by

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## DISSERTATION ABSTRACT

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Title: Sociocultural Contexts of Emotion Socialization in BIPOC Families

Having effective emotion regulation skills is critical to socioemotional well-being, and parents play a key role in the development of children's emotion regulation through emotion socialization behaviors. However, since emotion socialization research has been primarily conducted with majority culture families, extant studies have often lacked consideration of BIPOC families' unique sociocultural contexts. The current dissertation aimed to expand our understanding of parent emotion socialization behaviors and their impact on child functioning among minoritized families through two studies. The first was a scoping review of how a predominant parent-report emotion socialization measure, the Coping with Children's Negative Emotions Scale (CCNES), has been utilized among ethnoracial minority families in the United States. Findings are discussed in relation to adaptation and psychometric validation of the CCNES. Results suggested that parent emotion socialization behaviors traditionally categorized as "supportive" or "nonsupportive" may be differentially associated with child outcomes among BIPOC families. Recommendations for best practices for using the CCNES are provided.

The second study was an empirical evaluation of the association between maternal emotion socialization and child emotion regulation, testing the moderating role of racial identity among African American and White American families. Results showed that for Black/African

American families, increased maternal emotion/problem-focused emotion socialization behaviors were associated with children's increased knowledge of sadness emotion regulation strategies, but this association was not significant among White families. Additionally, we conducted a preliminary examination of the role of culturally specific moderators with a subsample of Black/African American participants. Results suggested that associations between parent emotion socialization and child behavior problems were dependent on maternal racial socialization behaviors. Together, these results emphasize the importance of examining proximal factors of emotion socialization and considering normative developmental processes for minoritized youth that overlap with emotion regulation development.

Future researchers should test the unique and additive role of various emotion socialization behaviors, consider employing mixed-methods approaches to facilitate understanding of culturally nuanced emotion socialization responses, and examine culturally specific mechanisms. By incorporating these factors, researchers will be able to go beyond cross-cultural comparisons toward a conceptualization of child emotional development that integrates the dynamic interactions between emotion socialization and sociocultural context.

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## CHAPTER I

### GENERAL INTRODUCTION

Emotion regulation is critical to multiple domains of children's socioemotional well-being. Specifically, children's early ability to effectively regulate emotions has been linked to various later outcomes, including more adaptive social functioning and decreased risk for a variety of psychopathologies (e.g., Schäfer et al., 2017). Theoretical models have delineated specific parental behaviors that are directly related to children's emotion regulation development, and robust evidence has demonstrated that parents indeed have a significant influence on the ways in which children learn to understand, experience, express, and regulate their emotions through processes referred to as emotion socialization (e.g., Eisenberg, 2020; Eisenberg et al., 1998; Hajal & Paley, 2020; Parke & McDowell, 1998).

The process of emotion regulation is inherently embedded within social and cultural norms. Namely, aspects of emotional functioning, including emotion display rules, predominant emotion regulation strategies, and the goals of adaptive emotion regulation, are predicated on alignment with cultural norms and values (e.g., Ramzan & Amjad, 2017). Despite recent reviews signaling the importance of considering families' current sociocultural context when examining parent emotion socialization behaviors (e.g., Morris et al., 2017), research examining parent emotion socialization has been primarily conducted with White, middle-class families, including the development and validation of predominantly used measures of emotion socialization (Friedlmeier et al., 2011; Labella, 2018; Raval & Walker, 2019).

Experts in the study of mental health disparities emphasize the importance of considering both cultural differences as well as the impact of ethno-racial relations when conducting culturally sensitive research, as minority group membership is associated with experiences of

prejudice and discrimination at the systemic, structural, and individual levels (Sue & Dhindsa, 2006). The United States continues to diversify, such that there is now no majority racial or ethnic group for youth younger than 18 (Jensen et al., 2021). Findings and terminology derived from a foundation of research conducted with White families may not reflect adaptive functioning for minoritized families in the context of other cultural models and circumstances. It is critical to continue diversifying psychological research, including our understanding of how parent emotion socialization behaviors impact child psychosocial functioning.

My dissertation will contribute to our understanding of parent emotion socialization behaviors in ethnoracial minority (i.e., minoritized) families in the United States. Specifically, this dissertation is comprised of two studies: a scoping review of the literature regarding how a predominant self-report measure of emotion socialization is used amongst BIPOC (Black Indigenous People of Color) families in the United States, and an empirical evaluation of maternal emotion socialization and its relationship with children's emotion regulation and behavior problems among Black/African American and White non-Hispanic mothers. Prior to presenting these studies, I will first introduce key definitions and theories surrounding emotion, emotion regulation, and emotion socialization and provide a brief summary of the state of emotion socialization literature.

### **Defining Emotion and Emotion Regulation**

Given the longstanding challenges of operationalizing and defining emotion regulation in the child development field (e.g., Adrian et al., 2011; Cole et al., 2004), it is important to first define emotion and emotion regulation. In line with Gross' (2015) process model of emotion regulation, emotion is defined as a whole-body experience that involves paired changes in physiology, behavior, and subjective experiences. Emotions are functional or helpful when

directing one's attention to key environmental features, informing decision-making processes, readying behavioral responses, and facilitating socially appropriate interactions. On the other hand, emotions can be harmful when inappropriate in intensity, duration, frequency, or type, given the situation's context (Adolphs & Andler, 2018; Fanselow, 2018; Keltner & Gross, 2010). Because emotions can be helpful or harmful depending on the goal, emotions and emotion regulation are intrinsically related to specific communities' sociocultural norms and values.

Emotion regulation consists of processes that modulate the occurrence, length, and intensity of emotions and their associated physiological responses (Eisenberg & Morris, 2002; Thompson, 1994). Internal processes of emotion regulation include cognitive strategies (e.g., shifting one's attention and cognitive restructuring) and biological processes that facilitate the downregulation of physiological arousal. Emotion regulation is also facilitated by external resources, such as parents and other caregivers, during developmental stages where self-regulatory processes are newly emergent and maturing.

The development of emotion regulation and its affiliated strategies are closely linked to a child's developmental stage. Broadly, during infancy and toddlerhood, emotion regulation is predominantly facilitated by a caregiver's external influence (e.g., Eisenberg et al., 2010; Thompson & Goodman, 2010). Internal factors that promote emotion regulation begin to emerge as children enter preschool age (3-5 years), and the maturation of neurological areas critical to executive functioning facilitates more nuanced internal strategies of emotion regulation as children enter middle childhood (6-12 years) (Riediger & Klipker, 2014; Stegge & Terwogt, 2007). Even as internal processes for emotion regulation continue to develop over time, parents and caregivers continue to significantly influence children's socioemotional development throughout childhood through processes such as emotion socialization behaviors (Miller-Slough

& Dunsmore, 2016). Given their pivotal influence, parent behaviors must be considered when examining emotion regulation during early childhood and beyond.

Gross' (2015) updated process model of emotion regulation underscores the iterative and context-dependent nature of emotion regulation. It is important to note that there are no emotion regulation strategies that are universally adaptive. Instead, whether specific emotion regulation strategies are adaptive or maladaptive is likely dependent on a multitude of factors, including specific sociocultural contexts, reflective of differing values and differing goals for emotion regulation.

### **Parent Emotion Socialization**

Parental emotion socialization is defined as the processes parents use to teach their children about emotions, including appropriate expression of emotions and how to regulate emotions effectively (Eisenberg et al., 1998). Parent emotion socialization behaviors are distinct from other well-studied parenting variables, such as parental warmth or maternal sensitivity, which describe a more global interaction style or encompass parental responsiveness to a broad range of child cues (Katz et al., 2012). While there are multiple theoretical models of parent emotion socialization that emphasize various emotion socialization processes, such as parental meta-emotion philosophy and family emotional environment (e.g., Gottman et al., 1996; Morris et al., 2007), the current dissertation focuses on the impact of parental responses to children's emotions, as delineated in Eisenberg and colleagues' (1998) heuristic model of parental emotion socialization. This heuristic model has been extensively used to guide developmental researchers in the past two decades, and a significant body of evidence has been accumulated linking the ways in which parents respond to their children's emotions to subsequent socioemotional outcomes in children.

Within emotion socialization literature, responses to children's emotions are generally categorized as "supportive" or "nonsupportive." Specifically, responses in which parents assist the child in problem-solving, help the child feel better by comforting or distracting them (i.e., emotion-focused responses), and promote expressing the emotion are categorized as supportive. On the other hand, parent responses that minimize or punish children's emotional reactions and responses that emphasize their own distress to the child's emotions have been labeled as unsupportive or nonsupportive. Theoretical models posit that parents who find their children's negative emotions aversive respond with their own distress and that their punishing or minimizing reactions serve to discourage children's display of negative emotions in an effort to relieve their own distress (e.g., Eisenberg & Fabes, 1992).

Much research has identified associations between supportive responses and adaptive child psychosocial functioning and associations between nonsupportive responses and adverse child outcomes. For example, supportive parent emotion socialization behaviors have been linked with children's increased empathy, more effective emotion regulation, and decreased internalizing and personality disorder symptoms (Cole et al., 2009; Haliczer et al., 2020; Ornaghi et al., 2020). Conversely, parental nonsupportive responses have been linked to increased difficulty with emotion regulation, conduct problems, anxiety, and depression (Lunkenheimer et al., 2007; Schwartz et al., 2012; Williams & Woodruff-Borden, 2014). Traditionally, studies examining the impact of parent emotion socialization behaviors have assumed that parents' supportive responses to children's negative emotions, defined in the manner above, are unilaterally beneficial and that nonsupportive responses are consistently harmful. This assumption warrants questioning, considering the unique needs of children across developmental

and cultural contexts. Notably, a majority of foundational parent emotion socialization research was conducted with White, middle-class Americans.

### **Unique Considerations in Emotion Socialization for BIPOC families**

#### **Defining Culture, Race, and Ethnicity**

While the importance of cultural factors has been underscored since the earliest models of emotion socialization (e.g., Morris et al., 2007), and there have been recent calls for more significant consideration of culture when considering the impact of parent emotion socialization behaviors (Eisenberg, 2020), its role has frequently been overlooked. Culture has traditionally been described as a shared system of beliefs, traditions, and behaviors generated over time from various foundations, including religion, historical knowledge, philosophy, and processes such as globalization (Harkness & Super, 2002; Betancourt & López, 1993). Culture impacts development at both the individual and societal levels, such that children are molded by processes like family socialization into worldviews and social roles. Children are additionally influenced indirectly through their social assignment within societies that utilize group membership and social location as a basis to distribute privilege and power (Causadias, 2013; Coll et al., 1996).

Culture is closely related to the constructs of race and ethnicity. Ethnicity includes a sense of belonging to a specific group based on shared culture, including attributes such as shared language, religion, or national origin (Stephen, 2014). Race is a construct based on perceived physical differences and can be understood as a system to classify individuals based on those shared physical characteristics and the social hierarchy in which the groups are structured (Hartigan, 2010). Both race and ethnicity are social constructs, with neither term delineating genetic or biological categories (Mersha & Beck, 2020). The constructs of race, ethnicity, and

culture are often conflated, and race and ethnicity have often been used as proxies for cultural processes in developmental literature (Causadias, 2013). Throughout this dissertation, I will conceptualize race and ethnicity as part of the broader concept of culture, although I recognize each concept as unique (Causadias et al., 2018).

## **Emotion Socialization and the Integrated Ecological Model of Minority Youth**

### **Development**

Ecological models of human development posit that an individual is situated within multiple complex and interacting systems (Ashiabi & O’Neal, 2015; Bronfenbrenner & Morris, 1998). To accurately understand developmental trajectories, it is vital to consider not only the child's individual and immediate environments but also how the individual level interacts with the larger social, political, and cultural contexts (Vélez-Agosto et al., 2017). This is especially critical when researching socioemotional development among non-majority families that have been underrepresented in psychological research. García-Coll and colleagues (1996) proposed a seminal integrative model for studying development in minority children that has significantly shaped subsequent developmental and psychological science. Their model was among the first to centralize the insidious impact of marginalization and social stratification mechanisms (e.g., racism, prejudice, oppression) in shaping the development of children from all non-majority cultures and minoritized groups, in addition to considering familial values, beliefs, and goals unique to specific cultural contexts. The integrative model challenged researchers to focus on the unique processes normative to BIPOC youth, moving beyond deficiency models that traditionally assumed findings among persons of color that diverge from those of White families indicate inferiority or abnormality. Specifically, the authors encouraged researchers to begin conceptualizing family interaction patterns as a reflection of an adaptive culture, combining

historical and traditional components and functionally adaptive responses in the present context, rather than solely as individual patterns of interactions (García-Coll et al., 1996). Thus, when considering emotion socialization and emotion regulation development among BIPOC youth, it is important to consider how they interface with racism and prejudice and other normative developmental processes such as ethnic-racial socialization.

García-Coll and colleagues (1996) also underscored the limitations of extant psychological assessment measures in capturing the nuances of adaptive functioning and developmental competencies for minoritized children, such as dimensions of cultural pride and coping with prejudice. Relatedly, having appropriate tools for assessment has been identified as a primary methodological issue for examining emotion socialization amongst diverse families (Labella, 2018; Raval & Walker, 2019). Predominant emotion socialization measures were developed primarily with middle-class White families, and cross-ethnic comparisons of emotion socialization build upon multiple assumptions, including that the constructs are equivalent across cultures and assessments function similarly across groups (Labella, 2018). Some researchers have raised methodological concerns about using such measures when considering cultural variations in emotion socialization responses. For example, the connotation attached to the label of "supportive" and "nonsupportive" responses, which is often used in emotion socialization research, may be less appropriate for non-White families, given that prior literature has identified differing patterns of associations of emotion socialization behaviors in diverse families globally (Raval & Walker, 2019).

### **Overview of Current Dissertation**

The current dissertation proposes to advance our understanding of parent emotion socialization amongst BIPOC families in the United States through two studies: a scoping review



of the literature and an empirical evaluation of maternal emotion socialization and its impact on child emotion regulation and behavior problems. The first study is a scoping review to determine the ways in which a predominant parent-report emotion socialization measure, the Coping with Children's Negative Emotions Scale (CCNES), has been utilized among ethnoracial minority families in the United States. This project aims to systematically examine extant literature to identify potential research gaps and provide practical guidelines in examining emotion socialization amongst BIPOC families. Results of this scoping review will provide further clarity on how the field can move toward a multicultural approach to theory and measurement of emotion socialization that prioritizes the perspectives of individuals in underrepresented communities.

The second study is an empirical evaluation of the association between maternal emotion socialization and child psychosocial behaviors, testing the moderating role of race among African American and White American mothers. Specifically, self-reported maternal emotion socialization is examined in relation to multiple indices of child emotion regulation, including frustration regulation and children's knowledge of emotion regulation strategies. In a preliminary study using a subsample of African American mothers, we also begin examining the moderating role of racial socialization processes on the impact of emotion socialization on child internalizing and externalizing behaviors. This project capitalizes on the structure of an existing RCT (1RO1MH111758-01A1; PI Zalewski) conducted across two sites (University of Oregon, University of Pittsburgh) with a diverse sample that examines the outcomes of mothers with psychopathology and their children. Specifically, two-thirds of recruited mothers demonstrated elevated symptoms of Borderline Personality Disorder (BPD), a disorder characterized by emotion dysregulation (Leichsenring et al., 2011). This clinical population is appropriately suited

for this study, as there will be a high amount of variability in maternal emotion socialization behaviors. Results from this project will contribute to the scant literature that examines the proximal impacts of maternal emotion socialization and further inform the impact of parent emotion socialization on child development among diverse groups.

## CHAPTER II

### USE OF THE CCNES AMONGST BIPOC FAMILIES IN THE US: A SCOPING REVIEW

The ability to effectively regulate emotions is essential for adaptive socioemotional functioning, and emotion dysregulation has been recognized as a transdiagnostic risk factor for a variety of psychopathologies (Aldao et al., 2016; Brenning et al., 2022; Cludius et al., 2020). Consequently, researchers have extensively examined the developmental trajectory of emotion regulation, with a significant emphasis on the role of parents through emotion socialization behaviors (Eisenberg, 2020). In the past two decades, researchers have contributed to a robust body of literature surrounding emotion socialization, including delineating pathways from emotion-related socialization behaviors to various child socioemotional outcomes, examining child and parent-related predictors of emotion socialization behaviors, and identifying mediators and moderators of associations. However, the majority of extant research in this area, including the development and validation of assessment tools used to measure emotion socialization, has been conducted with predominantly White middle-class American samples (Fabes et al., 2002; Johnson et al., 2017; Schwartz et al., 2012 ). The present study aimed to conduct a systematic scoping review of how one specific measure of parent emotion socialization, the Coping with Children's Negative Emotions Scale, has been used to examine parent emotion socialization behaviors amongst BIPOC (Black, Indigenous, and People of Color) families within the United States.

#### **Parental Responses to Children's Negative Emotions**

The manner in which parents respond to their children's negative emotions (e.g., fear, sadness, anger) is a dominant mechanism of emotion socialization as described by Eisenberg's theory of emotion socialization (Eisenberg et al., 1998). By observing parental reactions,

children learn appropriate ways to express negative emotions and begin developing strategies to regulate their emotions to fit societal norms and expectations.

Findings from emotion socialization literature suggest that parental reactions that encourage children to express their emotions and engage in problem-solving behaviors foster adaptive functioning and socio-emotional competence (e.g., Baker et al., 2011; Dixon-Gordon et al., 2020). On the other hand, parental responses that minimize the child's emotions or are punitive are usually associated with poorer outcomes, including increased internalizing and externalizing disorders and decreased peer competence (e.g., Shewark & Blandon, 2015; Wong et al., 2009). However, like most psychological research, extant literature examining these associations has predominantly been conducted with majority culture families. In their seminal paper presenting the heuristic model of factors contributing to parental emotion socialization, Eisenberg and colleagues (1998) noted that the perception of behavior as being emotionally competent and socially appropriate will vary depending on cultural contexts. Therefore, although researchers have endeavored to identify the specific emotion socialization behaviors that will lead to the most adaptive functioning in children and identify the exact emotion socialization behaviors that lead to undesirable outcomes, it is impossible to make such universal generalizations. Namely, there are no universally shared definitions of what is considered "adaptive" or "desirable," and the adaptiveness of a behavior depends on goals and norms within a specific cultural context.

### **Cultural Considerations in Emotion Socialization**

A small but burgeoning area of research has examined the cultural context of parental emotion socialization. Raval and Walker (2019) conducted a literature review investigating caregiver emotion socialization behaviors in culturally diverse families worldwide and their

implications for child socioemotional functioning. Their findings suggested cultural variations in predominant parent emotion socialization behaviors. For example, in an examination of emotion socialization using the framework of independence (Western countries) versus interdependence (South Asian countries), Trommsdorff and colleagues (2012) found that mothers from Western countries were more likely to respond to children's negative emotions with expressive encouragement, while South Asian mothers were more likely to endorse minimizing responses. In explaining their findings, the authors posited that mothers from a culture of interdependence might prioritize interpersonal harmony when responding to their children's emotions, whereas Western mothers may prioritize their child's ability to express themselves autonomously (Friedlmeier et al., 2011; Park et al., 2012). Participants in this study were also presented with hypothetical situations in which they were asked how they would respond to their children, what emotions they would feel, and why they would react in that manner. Analyses of mothers' explanations indicated that mothers from Western countries focused on parenting goals and efficacy. In contrast, Asian mothers focused on the child's needs, demonstrating variations in parental response to children's emotions that depend on overall cultural values.

The review further revealed that associations between parent emotion socialization behaviors and child outcomes in diverse families might not align with the pattern of findings from studies with majority groups (Raval & Walker, 2019). In one study, nonsupportive responses to children's negative emotions by White American mothers were associated with increased child behavior problems, but this association was not significant for Indian immigrant mothers living in America (McCord & Raval, 2016). On the other hand, for mothers living in India, those who endorsed nonsupportive responses to children's emotions were more likely to have children with increased internalizing, externalizing, and somatic problems (Raval &

Martini, 2011). Overall, the review indicated a clear need to identify culturally embedded factors impacting parent emotion socialization and examine cultural factors as moderators between parent emotion socialization and child functioning (Raval & Walker, 2019).

While the review by Raval and Walker (2019) focused on the cultural context of emotion socialization globally, ethnoracial minority families in the United States have unique factors that contextualize parent emotion socialization behaviors. The term "minority" is used intentionally to convey group status in which individuals face discrimination and prejudice as a function of not being in the majority group. Specifically, within the United States, non-White individuals and families are impacted by contemporary and historical discrimination and exploitation based on race and ethnicity. Mental health disparity researchers emphasize that for minoritized groups, it is insufficient to solely consider cultural differences in behaviors. Instead, both cultural differences and factors related to ethnoracial relations need to be considered (Sue & Dhindsa, 2006).

### **Measuring Parental Response to Negative Emotions**

One challenge of conducting research amongst minoritized families is methodological limitations of extant commonly used measures, which were developed predominantly using cohorts of White U.S families (Stevanovic et al., 2017). A foundational assumption when utilizing an assessment measure with new groups is that the scale will retain the same psychometric properties, including demonstrating internal consistency (e.g., Cronbach's alpha) and maintaining the same factor structure, ensuring the scale measures the same underlying theoretical constructs across groups. However, a host of contextual factors would likely cause differences in responses across cultures. To provide an example, in a measure assessing childhood maltreatment and negative parenting, several questionnaire items that referenced the

medical system (e.g., “there was someone to take me to the doctor if I needed it”) exhibited non-invariance between Black/African American and White participants. Authors posited that this result likely reflected disparities in healthcare access and treatment in America rather than true differences in parenting values (Rodriguez et al., 2019). Examining construct validity and measurement equivalence is even more critical when conducting cross-cultural comparisons in developmental research, especially when using measures developed by and with majority groups. Measurement equivalence and invariance testing involves the equality of measurement constructs, factor loadings, regression intercepts, and residuals, and lack of measurement invariance could lead to biased and inaccurate estimations (e.g., Dimitrov, 2010).

While multiple assessment methods have been used to gauge parent emotion socialization in research, a predominant self-report questionnaire used to assess how parents respond to children’s emotions is undoubtedly the Coping with Children’s Negative Emotion Scale (see Appendix A; CCNES; Fabes et al., 2002). The CCNES was initially validated using a sample described as “primarily middle-class Caucasian mothers,” with 86% of participants identifying as Caucasian. Participants were recruited from private or university-affiliated preschools within the Phoenix metropolitan area. The CCNES has a unique structure such that it operationalizes parents' contingent responses to children's distress into distinct groups of behavioral reactions. The measure consists of 12 hypothetical vignettes which describe scenarios that might elicit a negative emotion (fear, anger, sadness) in their child. For each vignette, parents are asked to rate their likelihood of using six possible responses to the child's distress. Although less frequently used, the CCNES also has a 9-vignette adolescent-report form designed to elicit teenagers' responses regarding their perceptions of how their parents react to their negative emotions (Fabes & Eisenberg, 1998). The six responses per vignette correspond to six subscales: Distress

Reactions, Punitive Reactions, Minimization, Expressive Encouragement, Emotion-Focused Reactions, and Problem-Focused Reactions. Two composite scores are formed from the subscales, often labeled as "supportive" (comprised of the Expressive Encouragement, Emotion-Focused Reactions, and Problem-Focused Reactions scales) and "nonsupportive" (comprised of Distress Reactions, Punitive Reactions, and Minimization) emotion socialization behaviors.

Some researchers have raised methodological concerns about the CCNES when considering cultural variations in emotion socialization responses; the fixed nature of CCNES vignette responses precludes parents from providing culture-specific answers and does not allow for the examination of emotion socialization of positive emotions (Friedlmeier et al., 2010). The scenarios presented within the vignettes may also be more applicable and relevant for the sociodemographic groups on which the measure was validated (e.g., "If my child is about to appear in a recital or sports activity and becomes visibly nervous about people watching him/her, I would:"). Additionally, the connotation attached to the label of "supportive" and "nonsupportive" responses, as well as the composite scales themselves, may be less appropriate for non-White families, with extant literature identifying different patterns of associations of broader emotion socialization behaviors in diverse families globally (Raval & Walker, 2019). Overall, although the CCNES is frequently used in research with diverse families, it is currently unclear the extent to which the CCNES has been validated or adapted for use with non-White families in the United States. It is also unclear how results stemming from using the CCNES with BIPOC families are contextualized and discussed within the context of broader emotion socialization literature.



## **Current Study**

The current study aimed to evaluate how the CCNES has been implemented with BIPOC families in the United States to identify potential gaps in literature and inform best practice guidelines for emotion socialization research amongst diverse groups. Following guidelines by Munn et al. (2018) in selecting the most appropriate format to synthesize a body of literature, a scoping review was identified as the most suitable synthesis approach for this study. Specifically, a systematic scoping review format was chosen in lieu of a traditional systematic review, given that the primary purpose of the review was to broadly identify the scope of how the CCNES has been used amongst a specific population and map how it has been reported and discussed, rather than using the results of the review to identify and retrieve evidence related to a particular empirical question (Peters et al., 2015; Siddaway et al., 2019). Thus, a scoping review was conducted with the aims of 1) determining the ways in which the CCNES has been validated or adapted for use with BIPOC families in the United States, 2) characterizing the scope of parenting, child, and cultural variables that were examined in relation to parent emotion socialization, and 3) describing the manner in which results are being discussed, including what limitations and future directions are suggested in regards to methodological considerations in studying emotion socialization in diverse families within the United States.

## **Methods**

This review was guided by the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) extension for scoping reviews (PRISMA-SCr; Tricco et al., 2018). Online searches were conducted between February 7 and February 11, 2022. The search was run and all screening was conducted by the primary author.

## **Data Sources**

The search was conducted in three databases: APA PsycNet, Web of Science, and PubMed. These databases were selected to cover the psychological domain as well as include work with a multidisciplinary approach. Studies for inclusion were further identified by examining the references of relevant studies. Criteria for inclusion were as follows: 1) use of the CCNES to measure parent emotion socialization behaviors; 2) a focus on non-White parents and families within the United States, such that studies either consist predominantly of BIPOC families (>70%) or studies feature non-White subsamples where emotion socialization behaviors were examined separately by ethnoracial identity— in this case, the ethnoracial minority group had to make up greater than 10% of the sample in order to avoid overgeneralizing from small samples, as recommended by prior research (Labella, 2018); 3) clearly defined predictors or outcomes relating parental responses to children's negative emotions to demographic variables, cultural factors, child characteristics, parent characteristics, and/or parenting behaviors, and; 4) published in peer-reviewed articles. Additionally, articles that only included race as a covariate in analyses rather than a primary construct of interest were excluded.

## **Search Terms**

The search query for each database consisted of the following string in order to combine a search term specifying parent emotion socialization with a search term referring to race/ethnicity: ("Coping with Children's Negative Emotions" OR "to children's negative emotions" OR CCNES OR "emotion socialization" OR "socialization of emotion" OR "parent socialization" OR "parental socialization") AND (cultur\* OR race\* OR racial OR ethnic\* OR minorit\* OR immigrant OR "African American" OR Black OR Latin\* OR Asian OR native OR

indigenous OR non-white OR American). Both titles and abstracts were searched in each database.

### **Data Screening and Data Extraction**

DistillerSR (Evidence Partners, Ottawa, Canada), an online systematic review software that facilitates storage, screening, and data extraction, was utilized to conduct the abstract and full-text screening steps. The first level of data screening included an examination for relevance and potential eligibility by the title and abstract only. All studies that appeared to relate to emotion socialization in minoritized families in the United States were retained for further screening, even if the abstract did not specify the use of the CCNES. The next level included a full-text review of potentially eligible articles, during which each article was reviewed in its entirety to further screen for relevance and ensure it met eligibility criteria.

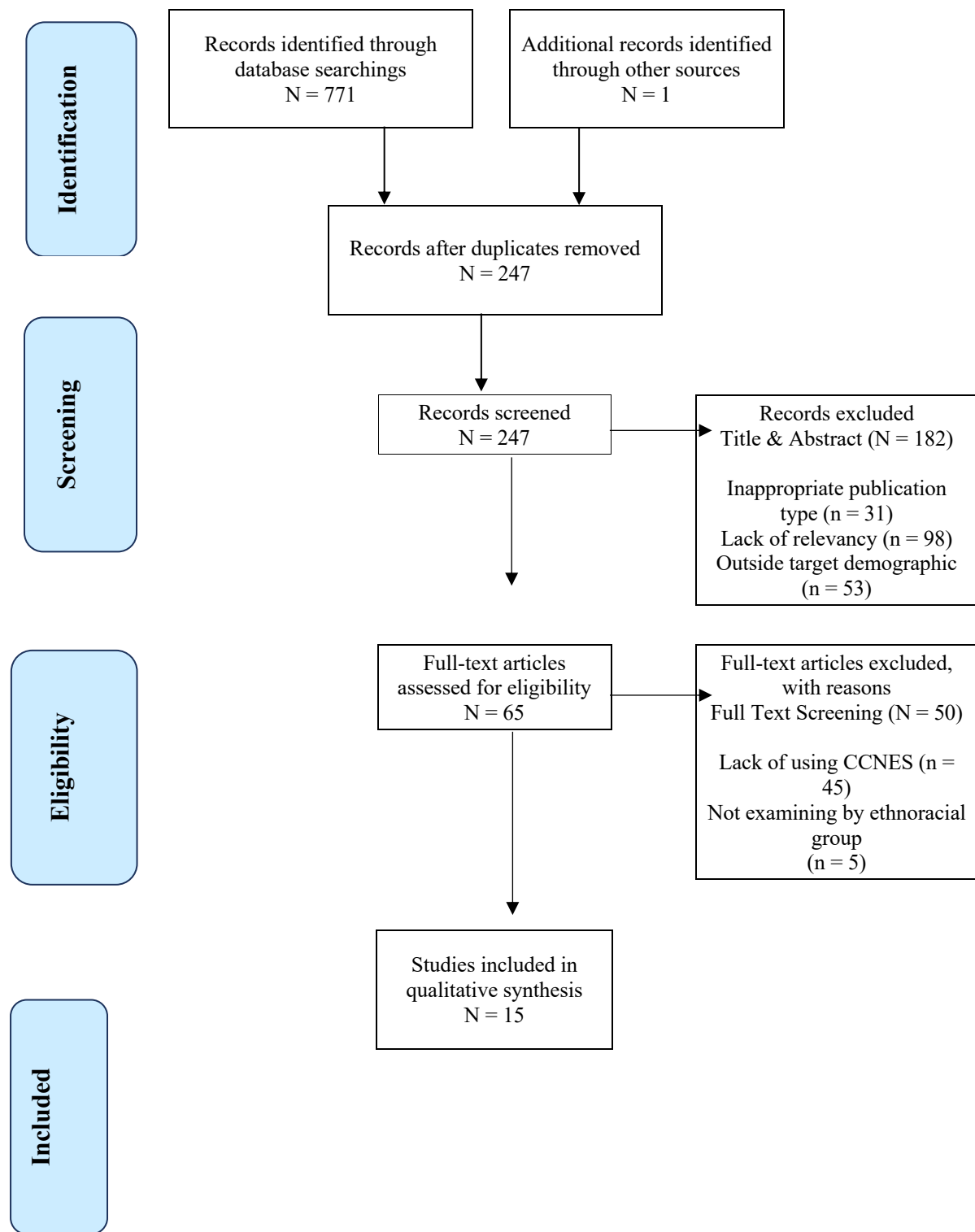
### **Data Extraction**

After identifying the complete set of articles that met eligibility criteria, articles were coded using a data extraction form that was created utilizing REDCap (Harris et al., 2019), a web application for building and managing online questionnaires and databases. Codes that were extracted related to study characteristics included year of publication, sample size, ethnoracial characteristics of the sample, and age range of children. Data pertinent to the research questions that were extracted include the following: adaptations made to the CCNES, list of CCNES composite scales or subscales that were used, whether analyses were conducted cross-culturally, whether CCNES was the dependent or independent variable, psychometric characteristics of the CCNES (including measurement invariance, internal consistency, and correlation between subscales), and parenting, child, and cultural variables associated with the CCNES, including discussion of limitations and future directions as they related to studying emotion socialization in

diverse families. The full range of extracted data can be found in the data extraction form (see Appendix B). Data was qualitatively synthesized in accordance with the three aims of the study as listed above.

## **Results**

Of 247 total articles (246 through search engines, 1 through citations) initially identified after duplicates were removed, 182 articles were excluded at the title and abstract screening stage (see Figure 1). Articles were excluded at this stage due to a combination of 1) inappropriate publication type (e.g., review papers;  $n = 31$ ), 2) lack of relevancy to project aims (e.g., parenting experiences in elite youth football;  $n = 98$ ), and 3) being conducted outside of the target demographic (e.g., conducted with parents in India;  $n = 53$ ). Of the 65 remaining articles inspected at the full-text screening level, 50 were excluded due to a lack of using the CCNES ( $n = 45$ ) and not examining emotion socialization by ethnoracial group ( $n = 5$ ). Results from the final 15 included studies, including sample characteristics, CCNES adaptation and scoring, and main findings, can be found in Table 1 and are described in greater detail below.



**Figure 1.** A flow diagram of the search and screening process (PRISMA, Moher et al., 2009).

**Table 1.** Summary of studies included in CCNES scoping review.

Study	Sample Characteristics	CCNES Adaptations	CCNES Subscales/Composites	Main Findings
<b>Brown et al. (2015)</b>	<p><i>N</i> = 299 parents; 29.2% African American, 26.4% European American, and 43.7% Lumbee American Indian; 39.6% mothers</p> <p>Child age: 4—10 years (<i>M</i>=7.1)</p>	<p>Measurement invariance across both gender and ethnicity was tested using a series of multiple group confirmatory factor analyses, resulting in the removal of 6 vignettes in the CCNES for subsequent analyses.</p>	<p>Supportive: Problem-Focused, Emotion-Focused, (Expression) Encouragement</p> <p>Nonsupportive: Distress, Punitive, Minimizing</p>	<p>Fathers reported more nonsupportive responses compared to mothers. Mothers reported more supportive reactions than fathers among European Americans and Lumbee American Indian parents, but African American mothers and fathers reported similar levels of supportive reactions.</p> <p>Regarding differences by child gender, mothers were generally more supportive of girls' negative emotions than fathers across all ethnicities. For boys, mothers were more supportive than fathers among European American parents of boys, but mothers of boys were less supportive than fathers among African American families.</p>
<b>Dunbar et al. (2015)</b>	<p><i>N</i> = 192 African American undergraduate students; 70% women; 17% low income</p> <p>Child age (retrospective self-report): 18—24 years (<i>M</i> = 19.44)</p>	<p>An adapted form of the original CCNES (Leerkes et al., 2015) was used to provide retrospective accounts of how their parents socialized their emotions during across 6 vignettes.</p>	<p>Supportive: Problem-Focused, Emotion-Focused, (Expression) Encouragement</p> <p>Nonsupportive: Punitive, Minimizing</p>	<p>Latent profile analyses of parent racial and emotion socialization indicated four maternal profiles: cultural-supportive (high cultural socialization and supportive emotion socialization), moderate bias preparation (moderate preparation for bias, promotion of mistrust, and nonsupportive responses), high bias preparation (high preparation for bias, promotion of mistrust, and nonsupportive responses), and low engaged (low across all racial and socialization constructs). Analyses indicated three paternal profiles: multifaceted (moderate across all constructs), high bias preparation, and low engaged.</p> <p>Men were more likely to have mothers in the high bias preparation and to have fathers in the multifaceted or high bias preparation profiles. Participants with mothers in the cultural-supportive profile or the moderate bias preparation profile demonstrated lower depressive symptoms than participants whose mothers were in the high bias profile.</p>

**Table 1. (continued).**

Study	Sample Characteristics	CCNES Adaptations	CCNES Subscales/Composites	Main Findings
<b>Dunbar et al. (2022)</b>	<p><i>N</i> = 94 parent-child dyads of Black or multiracial children; 97% mothers; Mean income = 30,000</p> <p>Child age: (T1) 5 years; (T2) 6 years</p>	None noted.	Suppression Responses: Punitive Responses, Minimization	Parents' suppression responses predicted decreased child externalizing behaviors only when parents engaged in preparation for bias. At low levels of preparation for bias, children with higher baseline RSA demonstrated increased externalizing behaviors. Children with lower baseline RSA were unaffected. Suppression responses were linked with increased child internalizing symptoms regardless of parent endorsement of preparation for bias.
<b>Gamble et al. (2007)</b>	<p><i>N</i> = 57 families; &gt; 90% Mexican American families; mothers (<i>n</i>=57) and fathers (<i>n</i>=57); 100% low income</p> <p>Child age: Preschoolers (<i>M</i>= 4.8 years)</p>	A modified 6 vignette version of the CCNES was used. Two situations were developed each for fear, anger, and sadness vignettes. Responses were on a 5-point scale, 0 = Never/Not at all to 4 = Very Likely).	<p>Disapproving: Punitive responses, efforts to end expression or discipline child to not express emotion</p> <p>Minimizing: Efforts to ignore the emotion or distract the child</p> <p>Emotion-coaching: Efforts to support child's emotion, problem-solving, and targeted discussions</p>	There was significant correlation and moderately strong intraclass correlation between parents on the CCNES. The endorsement of authoritarian parenting and disapproving beliefs and responses were positively correlated with each other, and negatively correlated with authoritative style and coaching beliefs and responses. There were positive correlations among the minimizing responses and ratings of authoritative parenting. Minimizing responses was also significantly correlated with disapproving responses.
<b>Leerkes et al. (2015)</b>	<p><i>N</i> = 251 pregnant women; 49.0% African American, 51.0% European American; Median income = 35,000</p> <p>Child age (retrospective self-</p>	<p>A modified version of the CCNES was used in which participants rated the extent to which they recalled how their mothers responded to their negative emotions in across 9 vignettes during their first 16 years of life.</p> <p>Measurement invariance testing resulted in the removal of 4 items from the distress reactions subscale</p>	<p>(Latent Factor) Remembered Supportive: Emotion-focused, problem-focused, Expressive Encouragement</p> <p>(Latent Factor) Remembered "Non-supportive": Minimize Reaction, Punitive Reaction, Distress Reaction</p>	Remembered nonsupportive emotion socialization was linked with elevated depressive symptoms for European American women but not African American women. Remembered nonsupportive responses were associated with elevated trait anger for both groups. Remembered supportive emotion socialization was linked with higher resting vagal tone for both groups.

**Table 1. (continued).**

Study	Sample Characteristics	CCNES Adaptations	CCNES Subscales/Composites	Main Findings
<b>Leerkes et al. (2020)</b>	<p>report):18—44 years (<math>M = 25</math>)</p> <p><math>N = 259</math> mother-infant dyads; 51.0% African American, 49.4% European American, Median income = 35,000</p> <p>Child age (retrospective self-report):18—44 years (<math>M = 25.1</math>)</p> <p>Child age: (T1) 6 months; (T2) 14 months</p>	<p>and 1 item each from the punitive and minimizing subscales.</p> <p>Two versions of the CCNES were used. The first was assessed participants' retrospective recollections of parent behaviors (see Leerkes et al., 2015). The second was the Coping with Toddlers' Negative Emotions Scale (CTNES; Sprinrad et al., 2007), which was adapted from the CCNES to reflect situations and responses appropriate for toddlers.</p> <p>Measurement invariance resulted in the removal of 1-2 items from every subscale precluding expressive encouragement on the CTNES, and the removal of 4 items from the distress reactions subscale and 2 items from the punitive, and 1 item from the minimizing subscales for the retrospective CCNES.</p>	<p>Remembered and current supportive emotion socialization: Expressive Encouragement, Emotion-Focused, Problem-Focused Responses</p> <p>Remembered and current nonsupportive emotion socialization: Distress Reaction, Minimizing, and Punitive Reactions</p>	<p>Mothers who endorsed high retrospective nonsupportive responses from their own mothers during childhood engaged in more self-focused and negative cry processing at 6 months, which in turn predicted less supportive responding to their own toddlers. These associations were not moderated by adult attachment coherence, and the full model was invariant across racial groups.</p>
<b>Lugo-Candelas et al. (2016)</b>	<p><math>N = 366</math> undergraduate students; 30.6% European American, 24.3% Latino/a American, 22.4% African American/Black, 22.7% Asian</p>	<p>The CCNES- Adolescents Perceptions version was adapted to be used with emerging adults by switching scenarios to the past tense and specifically asking participants to recall their</p>	<p>(Latent Factor) Supportive Reactions: Emotion Focused, Problem Focused, Expressive Encouragement</p> <p>(Latent Factor): Unsupportive Reactions:</p>	<p>Across all groups, paternal supportive responses were associated with fewer mental health symptoms and unsupportive responses were associated with greater mental health symptoms. For mothers, supportive emotion socialization responses were associated with fewer mental health symptoms in participants only for Latino/a American families. Maternal unsupportive responses were associated with more mental health</p>



**Table 1. (continued).**

Study	Sample Characteristics	CCNES Adaptations	CCNES Subscales/Composites	Main Findings
	American; 77.8% female  Child age (retrospective self-report): 18—26 years ( $M = 20.7$ )	adolescent years for 9 vignettes.	Distress, Minimizing, Punitive	symptoms in emerging adults for European American and African American/Black families.
<b>Nelson et al. (2012)</b>	$N = 202$ mothers; 32% African American, 68% European American; 32% low income  Child age: 5 years	Slight wording changes to three of the CCNES vignettes were made to add items that specifically address parent response to children’s anger.	Supportive: Problem-Focused, Emotion-Focused, Expressive Encouragement  Nonsupportive: Distress, Minimizing, Punitive	African American mothers reported fewer supportive responses and more nonsupportive responses to children’s anger compared to European American mothers. African American mothers of boys reported more nonsupportive responses to submissive negative emotions than did mothers of girls. Maternal beliefs about the negative consequences of expressing emotions partially accounted for the difference between groups in emotion socialization responses.
<b>Nelson et al. (2013)</b>	$N = 200$ mothers; 31.5% African American, 68.5% European American  Child age: 5 years	Slight wording changes to the CCNES vignettes were made to add items that specifically address parent response to children’s anger.	Individual subscales: Expression Encouragement, Emotion-Focused, Problem-Focused, Minimizing, Punitive, Distress	Problem-focused responses were positively associated with children’s teacher-reported school competence for European-American children but not significant for African-American children. Expressive encouragement was negatively associated with children’s competence per teacher-report for African-American children.
<b>Pintar Breen et al. (2018)</b>	$N = 112$ mother-preschooler dyads; 56.3% Dominican, 43.8% Mexican, >74.6% first generation immigrants; 100% low income  Child mean age: 5.08 years	The 6-item CCNES adaptation by Gamble et al. (2007) was used. There were two vignettes each for fear, anger, and sadness. Responses were on a 5-point scale, 0 = Never/Not at all to 4 = Very Likely).  Principal components analysis (PCA) was conducted with the adapted CCNES requesting a two-factor solution to examine a “supportive” and	“Supportive” factor: 15 items as identified in PCA  “Nonsupportive” factor: 13 items as identified in PCA	Principal components analysis revealed that supportive and nonsupportive dimensions of emotion socialization generalized to two groups of Latina mothers. However, heterogeneity in mean levels of these dimensions was seen such that Mexican mothers reported higher levels of nonsupportive responses than Dominican mothers.  Mothers’ supportive emotion socialization responses were associated with greater child expressive emotion knowledge. Nonsupportive responses were not related to child expressive emotion knowledge.

**Table 1. (continued).**

Study	Sample Characteristics	CCNES Adaptations	CCNES Subscales/Composites	Main Findings
<b>Rodas et al. (2017)</b>	<p><i>N</i> = 344 parents; 182 mothers (25.3% Latino, 74.7% Anglo), 162 fathers (21.0% Latino, 79.0% Anglo); 55% of families' annual income &gt;50,000</p> <p>Child age: (T1) 4 years; (T2) 8 years</p>	<p>"nonsupportive" factor, leading to the removal of 8 items.</p> <p>None noted.</p>	<p>Supportive: Problem-Focused, Emotion-Focused, (Expression) Encouragement</p> <p>Nonsupportive: Distress, Punitive, Minimization</p>	<p>Maternal supportive reactions were related to subsequent child internalizing behaviors across all participants. Higher supportive responses were associated with higher subsequent levels of internalizing behavior problems for Anglo mothers, but the opposite was true for Latina mothers, such that higher levels of supportive responses led to lower levels of child internalizing behavior problems. Child internalizing behaviors significantly related to higher subsequent levels of mother supportive reactions for Latina but not Anglo mothers. Paternal supportive reactions were related to subsequent higher child internalizing behaviors later in childhood for Latino but not Anglo fathers. Higher child internalizing behavior problems were associated with higher nonsupportive reactions in Anglo mothers but not Latino mothers. There were no significant bidirectional relationships in regard to paternal nonsupportive reactions.</p>
<b>Smith &amp; Walden (2001)</b>	<p><i>N</i> = 46 African American mothers; 51% of families' annual incomes &lt;10,000, 33.3% families with active case records with Department of Child Welfare</p> <p>Child age: Preschoolers (<i>M</i>=53.5 months)</p>	<p>None noted.</p>	<p>Positive maternal reactions: Problem-focused, Emotion-Focused, Emotional Encouragement</p> <p>Punitive reactions: Punitive Reactions, Minimization Reactions</p>	<p>Children from families where mothers had more positive emotion socialization reactions used fewer avoidant strategies for behavioral regulation per teacher-report. Boys whose mothers had more punitive responses to negative emotions engaged in fewer aggressive strategies of behavioral regulation per teacher-report.</p>
<b>Sosa-Hernandez</b>	<p><i>N</i> = 870 parents; 419 mothers, 451 fathers;</p>	<p>None noted.</p>	<p>Individual subscales: Expression Encouragement (EE), Emotion-Focused</p>	<p>Latent profile analyses identified four profiles: teach and problem-focused (high PFR), supportive (high responses on "supportive" i.e., EE, EFR, PFR, and low responses</p>

**Table 1. (continued).**

Study	Sample Characteristics	CCNES Adaptations	CCNES Subscales/Composites	Main Findings
<b>et al. (2020)</b>	59% White, 18% Black, Asian 17%  Child age: 8—12 years ( $M = 10.19$ )		(EFR), Problem-Focused (PFR), Minimizing (MR), Punitive (PR), Distress Response (DR)	on “nonsupportive” i.e., MR, PR, DR, balanced (moderate levels across all responses), and hyper-engaged (high scores across all subscales except for moderate levels of distress reactions). These profiles significantly differed by ethnicity, family expressivity, parent and child emotion dysregulation and psychopathology symptoms. Parents in the supportive and teach and problem-focused profiles reported higher parent-reported child emotion regulation and fewer parent-reported child psychopathology symptoms compared to the balanced and hyper-engaged groups.
<b>Valiente et al. (2009)</b>	$N = 240$ dyads; 55% Mexican American, 20% European American, 6% American Indian, 8% African American, 11% other; 87% mothers; Mean income = 30,000 – 50,000  Child age: 7—12 years ( $M = 9.42$ )	None noted.	Positive Reactions: Problem-focused Reactions, Emotion-Focused Reactions  Negative Reactions; Minimization, Punitive, Distress reactions  Affective Response: Negative Reactions subtracted from Positive Reactions	There were significant zero-order relations between parents’ affective responses to children’s negative emotions, and children’s effortful control, engagement coping, disengagement coping, involuntary stress responses, and adjustment. Children’s engagement coping mediated the association between parents’ affective responses and children’s adjustment.
<b>Yang et al. (2020)</b>	$N = 117$ mother-child dyads; 50.4% European American, 49.6% Chinese Immigrant; “all children were from middle-class families:  Child age: 7–9 years ( $M = 8.12$ )	None noted.	Supportive Reactions: Problem-focused Reactions, Emotion-Focused Reactions, Expression Encouragement  Nonsupportive Reactions: Punitive Reactions, Minimization Reactions	Mothers reported similar levels of supportive reactions, but Chinese immigrant mothers endorsed higher nonsupportive responses compared to European American mothers. Supportive maternal reactions were associated with higher psychological adjustment and adaptive coping child per maternal report across all participants. On the other hand, maternal nonsupportive reactions were associated with greater child behavior problems and maladaptive coping strategies per maternal report among European American children but not for Chinese immigrant children.

## **Description of Study Articles**

Of the 15 included studies, nine were comprised of parent-child dyads, three consisted of parent-report only, and three were exclusively retrospective self-reports of parenting behaviors. Ethnoracial characteristics among studies were as follows, including studies that analyzed BIPOC subsamples: African American ( $n = 10$ , 66.67%), Latinx ( $n = 5$ , 33.33%), Asian American ( $n = 3$ , 20%), Native American ( $n = 1$ , 6.67%). Four studies specified that they included participants who were immigrants (Gamble et al., 2007; Lugo-Candelas et al., 2016; Pintar Breen et al., 2018; Yang et al., 2020). Ten articles compared BIPOC subsamples to other ethnic groups, most commonly White Americans, for primary analyses. Offspring data ranged in age from infancy to young adulthood (including retrospective self-report). Specifically, one study included infants (ages 0-2 years), nine included preschool children (3-5 years), six included school-aged children (6-12 years), and three samples were retrospective self-reports conducted with college students and young adults. One study examining the intergenerational transmission of emotion socialization measured both retrospective accounts of parental emotion socialization as well as participants' own emotion socialization behaviors (Leerkes et al., 2020). Most studies examined children from a single age category, but four (26.67%) examined both preschool and school-aged children (e.g., age range = 4-10). Studies were primarily cross-sectional, but three studies employed a two-point design (Leerkes et al., 2020; Rodas et al., 2017; Yang et al., 2020).

## **CCNES Adaptation and Methodological Characteristics**

The first aim of this review was to describe how the CCNES has been used with BIPOC families in the United States, including adaptations and psychometric validations of the measure. This section will include results related to adaptations that were made to the CCNES, how the

CCNES was scored for use in analyses, the role of the CCNES in tested models (i.e., whether the CCNES was used as a predictor vs. dependent variable), and psychometric characteristics including measurement invariance, internal consistency, and correlations within the CCNES. Each section begins by reporting quantitative coding results, if applicable, before providing additional qualitative context as needed.

### ***Measure Adaptation***

Eight of the 15 included studies used a version of the CCNES that was altered from the original. Of these eight, four studies reported using a modified measure that had been altered to ask participants to retrospectively recall experiences of how their parents had reacted to their negative emotions during childhood and adolescence, with the number of vignettes ranging from 6 to 9. (Dunbar et al., 2015; Leerkes et al., 2015; Lugo-Candelas et al., 2016; Leerkes et al., 2020). Two studies conducted with the same sample reported "slight wording changes to the vignettes to add items that specifically address parent response to children's anger" (Nelson et al., 2012; Nelson et al., 2013). Lastly, Pintar Breen et al. (2018) used a version of the CCNES originally adapted for immigrant Mexican mothers and fathers by Gamble and colleagues (2007). This modified version included six total vignettes, with two vignettes each for fear, sadness, and anger.

### ***Subscale Composite Characteristics***

Regarding what components of the CCNES were used in study analyses, a total of 11 studies used the "supportive" composite comprised of the expressive encouragement, emotion-focused reactions, and problem-focused reactions subscales, and eight studies used the "nonsupportive" composite comprised of the minimization, distress reactions, and punitive subscales. This included two studies that used structural equation modeling and created latent

variables for each composite rather than using the mean of subscale scores. Four studies used a composite comprised of only the minimization and punitive subscales. One study conducted additional exploratory analyses by emotion sub-type, examining the difference between "dominant" negative emotions (i.e., vignettes about anger) and "submissive" negative emotions (i.e., vignettes about fear and sadness) among African American and White families (Nelson et al., 2012).

### ***Role of CCNES in Study Models***

For primary study analyses, the CCNES was more likely to be examined as a predictor in analytic models (n = 12, 80%; e.g., CCNES predicting child internalizing behaviors), including two studies that utilized latent profile analyses (Dunbar et al., 2015; Sosa-Hernandez et al., 2020), rather than examining the CCNES as an outcome variable (n = 2, 13.33%). One additional study examined the CCNES using correlational analyses without specifying CCNES components as an independent or dependent variable (Gamble et al., 2007).

### ***Psychometric Characteristics***

**Measurement Invariance.** Three studies that conducted cross-cultural comparisons analyzed measurement invariance for the CCNES using multigroup confirmatory factor analyses (Brown et al., 2015; Leerkes et al., 2015; Leerkes et al., 2020). Results indicated a lack of invariance leading to the removal of items in subsequent analyses across all three studies. Specifically, in a sample of African American and White mothers, while retrospective reports of the "supportive" subscales (i.e., problem-focused responses, emotion-focused responses, and emotional encouragement) suggested measurement invariance, items on the three "non-supportive" (i.e., distress reactions, punitive reactions, minimization) scales were not invariant and required removal of between one and four response items per subscale for subsequent

analyses (Leerkes et al., 2015; Leerkes et al., 2020). In addition to examining measurement invariance for recalled emotion socialization, Leerkes and colleagues (2020) also examined measurement invariance for the parent-report version of the CCNES for toddlers. Results indicated that items on the emotion-focused reaction subscale were invariant, but the remaining five subscales did not demonstrate invariance, resulting in the removal of either one or two items on each subscale prior to subsequent analysis. Brown and colleagues (2015) examined measurement invariance across gender and ethnicity among African American, Lumbee American Indian, and White parents. Results indicated relatively poor model fit, such that responses to half of the vignettes showed a consistent pattern of low or non-significant loadings onto their respective subscales, and responses to 6 vignettes were omitted from subsequent analyses. The authors noted that the remaining vignettes reflected parental reactions to children's "submissive" emotions (i.e., nervousness, anxiety, embarrassment).

**Internal Consistency.** All 15 articles provided internal consistency values for the CCNES as measured by Cronbach's alpha. There was variation in the extent to which Cronbach's alphas were reported. Specifically, of the ten studies that examined emotion socialization across ethnoracial groups for their primary analyses, five studies calculated reliabilities separately by race/ethnicity, while five only provided Cronbach's alphas for the entire sample. Further, four studies provided internal consistencies for each of the six subscales. In comparison, nine studies only provided internal consistencies at the composite (e.g., supportive and nonsupportive) level, and two studies provided ranges rather than individual values (e.g., "Alphas for Latino and Anglo mothers and fathers were all high, ranging from 0.88 to 0.94 for supportive parenting reactions and 0.82–0.91 for non-supportive"; Rodas et al., 2017). When averages were calculated for individual subscale reliabilities across included studies, the distress reactions subscale

demonstrated the lowest internal reliability (mean = .69, range = .55 – .81) and expressive encouragement subscale demonstrated the highest (mean = .88, range = .84 – .93).

**Correlation.** Nine studies reported correlation values between subscales of the CCNES. Four of the nine studies provided a correlation table between all six subscales, while five only provided correlation values between composite levels (e.g., the supportive and nonsupportive composites). In line with findings from studies with primarily White families, correlation coefficients between the supportive and nonsupportive composites were primarily negative. However, they ranged from .45 for retrospective accounts of maternal emotion socialization between supportive responses (expressive encouragement, emotion-focused, and problem-focused response subscales) and nonsupportive responses (punitive and minimizing subscales) among African American mothers (Dunbar et al., 2015) to -.42 between supportive emotion socialization (expressive encouragement, emotion-focused, and problem-focused response subscales) and nonsupportive emotion socialization (distress, punitive, and minimizing subscales) in a study with African American, Lumbee American Indian, and White American parents (Brown et al., 2015). Of the nine studies that reported correlation values between CCNES subscales, two studies calculated coefficients separately for African American and White parents (Nelson et al., 2013; Leerkes et al., 2015). Within these two studies, the direction of associations was similar such that supportive responses were negatively correlated with nonsupportive responses for both White and African American families, although the magnitude of correlations varied.

### **CCNES as related to Parent, Child, and Cultural Variables**

The second aim of this review was to characterize the scope of variables that were examined in relation to parent emotion socialization using the CCNES and their associated



findings. Variables were categorized as relating to parent characteristics (e.g., parent beliefs about emotions), parenting (e.g., parental warmth), child characteristics (e.g., internalizing behaviors), demographic information (e.g., income, race/ethnicity)<sup>1</sup> or culture (e.g., cultural socialization, preparation for bias). Results indicated that seven studies examined parent characteristics, three examined parenting behaviors, 13 examined child characteristics, 13 included demographic variables (including 12 studies that used race/ethnicity as a predictor in preliminary or main study analyses), and two included cultural constructs. Due to many analytic models simultaneously examining multiple predictors and outcome variables as associated with the CCNES, study findings are synthesized in the following sections as they relate to four common themes that were recurring across studies: 1) reporting mean level differences in CCNES responses by ethno-racial groups; 2) characterizing associations between parent “supportive” and “nonsupportive” responses and child functioning; 3) differences in maternal versus paternal CCNES responses; and 4) contextualization of CCNES responses and associations (e.g., examination of mechanisms, culturally-specific factors). Additionally, given the wide range of terms used to label CCNES dimensions (e.g., “nonsupportive” vs. “suppressive” vs. “unsupportive”), findings are described using the original language from the study.

### ***Differences in Parent CCNES Responses by Ethnoracial Group***

About half of included studies ( $n = 8$ , 53.33%) reported mean level differences when comparing responses on the CCNES across ethnoracial groups, typically when reporting preliminary analyses rather than testing a primary hypothesis. A few studies reported that mothers of African American (Nelson et al., 2012; Nelson et al., 2013; Leerkes et al., 2020),

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<sup>1</sup> Gender was categorized as either a parent or child-related characteristic and not included in the demographic information category

Latinx (Rodas et al., 2017), and Chinese children (Yang et al., 2020) endorsed engaging in higher levels of nonsupportive reactions when compared to White mothers. Another study found that Mexican mothers reported higher nonsupportive responses than Dominican mothers (Pintar Breen et al., 2018). However, a few studies did not find mean level differences in nonsupportive responses for parents. There were no significant differences in remembered supportive emotion socialization between African American and European American adult women reporting remembered emotion socialization (Leerkes et al., 2015; Leerkes et al., 2020). Dunbar et al. (2022) also found no difference between Black and non-Black parents when examining suppression responses (minimization, punitive reactions) among parents of Black children. There was also no difference in nonsupportive reactions endorsed between Latino and White fathers (Rodas et al., 2017).

There was greater variability when comparing parents' endorsement of supportive reactions. There was no significant difference between levels of supportive reactions endorsed by Chinese immigrant mothers (Yang et al., 2020) and Latina parents of preschoolers (Rodas et al., 2017) when compared to White parents, and no difference in supportive reactions between Mexican and Dominican mothers (Pintar Breen et al., 2018). Additionally, there were no significant differences in the retrospective report of supportive emotion socialization between African American and European women (Leerkes et al., 2015; Leerkes et al., 2020). On the other hand, some studies showed that Latina mothers endorsed less supportive reactions compared to White mothers when children were early school-age (Rodas et al., 2017), and African American mothers of infants and preschoolers endorsed lower supportive emotion socialization compared to White mothers (Nelson et al., 2012; Nelson et al., 2013; Leerkes et al., 2020).

Sosa-Hernandez and colleagues (2020) examined differences in parent reactions to children's emotions in Black, Asian, and White families using a latent profile approach using the CCNES and a measure to capture parental reactions to children's positive emotions. Results indicated four profiles: 1) *balanced*, 2) *hyper-engaged*, 3) *teach and problem-focused*, and 4) *supportive*. Logistic regressions indicated different probabilities of being in each profile depending on ethnoracial identity. For example, Black and Asian parents were more likely than White parents to be in the *hyper-engaged* profile (characterized by moderate scores on distress reactions to children's negative emotions and high scores across remaining emotion socialization indicators) compared to the *teach and problem-focused* profile (characterized by high problem-focused reactions to children's negative emotions, high teach/control reactions to positive emotions, and moderately high remaining indicators).

Overall, there are mixed findings regarding differences in parent reactions to children's negative emotions across ethnoracial groups, with some evidence to suggest that non-White mothers in Latinx, Asian, and African American families may endorse higher levels of nonsupportive reactions when compared to White mothers. There is more significant variability in regards to parent supportive responses, which may indicate the importance of culturally specific moderators and developmental context. Comparisons were predominantly conducted between minoritized and majority groups, with only one study examining within-group variability of CCNES responses (Pintar Breen et al., 2018).

### ***Associations between Parent “Supportive” and “Nonsupportive” Responses and Child Functioning***

The primary focus of most included studies was examining how parental reactions to children's negative emotions were associated with child outcomes, primarily related to

socioemotional functioning. Child functioning was measured using a variety of constructs, including socio-emotional competence, regulation behaviors, emotion knowledge, depressive symptoms, trait anger, and mental health systems. There were mixed findings both within and between ethnoracial groups regarding how "supportive" and "unsupportive" emotion socialization responses were linked to child behaviors.

A few studies demonstrated that parent nonsupportive reactions amongst non-White families were associated with a negative impact on children. For example, in retrospective accounts of parent emotion socialization, maternal nonsupportive reactions were associated with increased mental health problems and trait anger for African American young adults (Leerkes et al., 2015, Lugo-Candelas et al., 2016). Additionally, maternal distress reactions were related to more mental health symptoms in Asian American young adults (Lugo-Candelas et al., 2016), and paternal nonsupportive responses were associated with increased mental health problems for African American, Asian American, Latinx, and White college students (Lugo-Candelas et al., 2016).

However, a more common pattern of results across studies was that in contrast to findings reported in prior literature predominantly conducted with White families, parent nonsupportive reactions to children's negative emotions were not necessarily associated with adverse child outcomes in non-White families. In studies examining Latinx families, parent nonsupportive responses were unrelated to child expressive emotion knowledge (Pintar Breen et al., 2018) and mental health symptoms among emerging adults (Lugo-Candelas et al., 2016) and actually associated with decreased child internalizing problems in one study (Rodas et al., 2017). Maternal nonsupportive reactions were also unrelated to child behavior problems (Yang et al., 2020) and mental health problems (Lugo-Candelas et al., 2016) in Chinese immigrant and Asian

American families and associated with subsequently increased child emotion knowledge (Yang et al., 2020). In contrast, for White families within the same studies, maternal nonsupportive reactions were related to increased child problems and decreased emotion knowledge. For African American families, preschool-aged boys whose mothers demonstrated more punitive responses (punitive, minimizing) to negative emotions engaged in fewer teacher-reported aggressive behavior regulation strategies (Smith & Walden., 2001). Additionally, remembered maternal nonsupportive reactions were not related to depressive symptoms for African American women, although they were linked to increased depressive symptoms in White women (Leerkes et al., 2015).

In contrast to associations of nonsupportive reactions, findings were more varied regarding the impact of supportive reactions. On the one hand, some results suggested that parent supportive responses in BIPOC families were associated with more adaptive functioning in children, similar to what has previously been demonstrated among White families. For example, parent supportive responses were associated with greater child expressive emotion knowledge (Pintar Breen et al., 2018), fewer internalizing symptoms (Rodas et al., 2017), and fewer mental health problems (Lugo-Candelas et al., 2016) in Latinx families, higher levels of psychological adjustment in Chinese immigrant families (Yang et al., 2020), and higher resting vagal tone, a physiological indicator of emotional adjustment, for African American women (Leerkes et al., 2015). Paternal supportive reactions were associated with fewer mental health symptoms for African American/Black, Asian American, White, and Latinx college students (Lugo-Candelas et al., 2016).

Other studies suggested that supportive responses do not confer adaptive outcomes for children in non-White families. In a retrospective examination of parental emotion socialization,

maternal supportive socialization reactions were unrelated to mental health symptoms for African American and Asian American young adults (Lugo-Candelas et al., 2016). One study demonstrated that "supportive" reactions may actually negatively impact children in African American families (Nelson et al., 2013). Specifically, maternal expressive encouragement responses, traditionally categorized as a supportive emotion socialization behavior, were linked to lower teacher reports of socioemotional competence in African American kindergarten children.

In sum, results regarding the association between parental reactions on the CCNES and offspring functioning followed a similar pattern to that of mean level differences in parent reactions to children's negative emotions across ethnoracial groups. While there were some mixed findings across studies, there is evidence to suggest that "nonsupportive" parent emotion socialization reactions are not related to adverse child impacts in Latinx, Asian, and African American families as they are within White families. On the other hand, parent "supportive" reactions were associated with beneficial outcomes in many studies, including with Asian, Latinx, and African American families, consistent with prior literature conducted with predominantly majority families. However, a few studies demonstrated null or adverse impacts of supportive parent reactions, particularly among African American families (Nelson et al., 2013; Lugo-Candelas et al., 2016).

### ***Maternal versus Paternal Responses to Children's Negative Emotions***

While there were several parent characteristics examined in relation to the CCNES, including emotion regulation, beliefs about emotions, education, and remembered emotion socialization, the most commonly examined in the context of the CCNES was parent gender ( $n = 4$ ). Some studies reported parent gender differences in endorsement of CCNES responses, and

paternal and maternal responses were also compared across ethnoracial groups. In a study that included African American, White, and Lumbee American Indian parents of school-aged children, Lumbee mothers endorsed more supportive reactions to children's negative emotions than Lumbee fathers. In contrast, African American mothers and fathers reported similar rates of supportive and nonsupportive reactions to children (Brown et al., 2015). For nonsupportive reactions, fathers reported more nonsupportive reactions compared to mothers across all groups. Interestingly, maternal and paternal responses were additionally influenced by child gender, such that mothers were more supportive of girls' emotions than fathers across all three ethnoracial groups. However, differences among ethnoracial groups emerged for parents of boys. While Lumbee mothers and fathers of boys did not differ in their supportive reactions, White mothers of boys were more supportive of boys than White fathers, and African American mothers of boys were less supportive than African American fathers. In a different study examining Latinx and White families when children were age four, and again at age eight, mothers reported higher supportive parenting reactions than fathers at both time points (Rodas et al., 2017). For parent nonsupportive reactions, there was a significant interaction between child age and parent gender, such that mothers' levels of nonsupportive reactions increased while fathers' levels of nonsupportive reactions remained stable between ages four and eight.

In addition to examining mean level differences, some studies further examined how maternal versus paternal reactions to negative emotions were associated with child behaviors and functioning. Rodas and colleagues (2017) found that maternal supportive behaviors predicted lower internalizing behaviors for Latinx dyads. For fathers, supportive reactions endorsed when children were four years old were associated with increased internalizing behaviors in children at age eight for both Latinx and White families. Differential impacts of maternal versus paternal

reactions to children's negative emotions persisted across developmental periods, as demonstrated by Lugo-Candelas and colleagues (2016) in their examination of the associations between retrospective accounts of parental emotion socialization and mental health among African American/Black, Latino/a, Asian, and White college students. While the associations between maternal socialization practices and offspring mental health varied across ethnoracial groups, there were no differences between groups for retrospective accounts of paternal emotion socialization. Specifically, remembered paternal supportive responses were associated with significantly fewer mental health symptoms, and paternal unsupportive responses were significantly related to more mental health symptoms in college students across the entire sample.

This constellation of results across studies suggests that there may be mean level differences between maternal versus paternal reactions to children's negative emotions in diverse families that vary between groups and differences in how maternal versus paternal emotion socialization reactions affect children. Limited evidence suggests that paternal emotion socialization behaviors may be less varied in association with demographic and child factors. Given these differences, considering the intersection of gender and ethnoracial identity may be especially vital in future emotion socialization research among BIPOC families.

### ***Further Contextualizing the Associations of Parent Emotion Socialization***

A subset of studies contextualized the differences in parent emotion socialization behaviors and their association with child functioning by examining the role of proximal individual characteristics, testing the bidirectional associations and intergenerational transmission of parent emotion socialization, and investigating culturally-specific mechanisms.



Relatively few studies examined child and parent-related characteristics beyond the impact of gender. Concerning child-level variables, Valiente and colleagues (2009) tested child coping skills as a mediator between parents' reactions and total problem behaviors among a sample of predominantly Mexican American families, with findings indicating that child disengagement coping mediated the association between parent emotion socialization behaviors and parental reports of total problem behaviors. Rodas and colleagues (2017) tested the impact of child behaviors on subsequent parent emotion socialization in a two-time-point study examining the bidirectionality between emotion socialization and child behaviors among White and Latinx families. Child internalizing behaviors when children were preschool-aged predicted more supportive reactions when children were early school-age for Latina mothers and more nonsupportive reactions from White mothers. With respect to parent-level individual characteristics, Nelson et al. (2012) examined parent beliefs about emotions as a mediator between ethnoracial identity and CCNES responses between African American and White mothers. Results indicated that African American mothers' beliefs about the consequences of expressing negative emotions partially accounted for their endorsement of less supportive and more nonsupportive responses compared to White mothers (Nelson et al., 2012). One novel study examined the intergenerational transmission of emotion socialization among African American and White women (Leerkes et al., 2020). Mothers who reported higher remembered nonsupportive emotion socialization behaviors by their own mothers were more likely to have maladaptive processing of their infants' crying, which then predicted less supportive emotion socialization behaviors towards their children. These results demonstrated that in addition to direct transmission of emotion socialization behaviors, emotion socialization behaviors in childhood may additionally impact future parenting behaviors.

Only two studies included in the review examined the role of culturally specific variables as they relate to parent emotion socialization behaviors endorsed on the CCNES. Dunbar and colleagues (2015) examined how emotion socialization processes intersect with racial socialization processes using latent profile analysis and retrospective accounts of parent emotion socialization among African American college students. Results indicated four maternal profiles: 1) *cultural-supportive* (high levels of cultural socialization and supportive emotion socialization); 2) *moderate bias preparation* (moderate endorsement preparation for bias, promotion of mistrust, and nonsupportive responses); 3) *high bias preparation* (high preparation for bias, promotion of mistrust, and nonsupportive responses); and 4) *low engaged* (low across all racial and emotion socialization subscales), and three paternal profiles: 1) *multifaceted* (moderate levels across racial and emotion socialization constructs); 2) *high bias preparation*, and 3) *low engaged*. Male participants were more likely to endorse having mothers in the high bias preparation profile and having fathers in the multifaceted or high bias preparation profiles. In examining the associations between parent socialization profiles and offspring socioemotional functioning, participants whose mothers fit the high bias preparation profile demonstrated higher depressive symptoms than participants whose mothers were in the cultural-supportive or moderate bias preparation profile.

Finally, Dunbar and colleagues (2022) extended prior studies examining emotion socialization among Black families (e.g., Nelson et al., 2012) by examining the role of culturally-specific mechanisms. Authors explicitly tested whether the effect of parental suppression (punitive and minimization subscales) is moderated by the extent to which parents prepare their preschool children for the potential of experiencing racism (i.e., preparation for bias) and children's baseline respiratory sinus arrhythmia (RSA). Authors hypothesized that Black parents'

suppressive reactions to children's negative emotions may be a supportive emotion socialization strategy in the context of preparing children for the experience of racism. Child baseline RSA was examined as a possible indicator of children's sensitivity to the caregiving context, with prior studies showing that children with higher baseline RSA are more sensitive to the positive and negative aspects of the caregiving environment (e.g., Blandon et al., 2008). Results showed that parental suppressive responses were associated with lower externalizing problems in children when paired with high levels of preparation for bias. Additionally, for children with high baseline RSA, suppressive responses were associated with greater externalizing problems at low levels of preparation for bias. Parental suppression strategies were also associated with increased internalizing symptoms for children with higher baseline RSA, whether or not parents discussed racism with children. These results point to a challenge in which parental suppressive behaviors may effectively reduce externalizing behaviors under the context of battling racism but simultaneously exacerbate internalizing problems.

While studies that go beyond using race/ethnicity as a proxy to disentangle the nuances associated with CCNES responses in non-White families are few and far between, findings from such studies suggest that it may be a fruitful venture. Results identified various proximal factors that mediate the association between parental reactions and child functioning at the child and parent levels (Valiente et al., 2009; Rodas et al., 2017). While most studies included in this review were conducted cross-sectionally, there is emerging evidence for the intergenerational transmission of emotion socialization through parenting processes such as cry processing (Leerkes et al., 2020). An especially important set of results was that when analytic models included culturally-specific factors, they provided additional clarification and nuance to findings from prior studies (Dunbar et al., 2022).

## **Studies' Stated Limitations, Future Directions, and Contextualization of Findings**

The final goal of this review was to describe the manner in which results are being contextualized within the discussion section of studies, including limitations, implications of study findings, and future directions suggested with respect to emotion socialization amongst diverse families. Specifically, this section includes results from studies' discussion sections related to their description of methodological limitations of the CCNES, use of the labels "supportive" and "nonsupportive" for CCNES composites, and descriptions of future directions regarding the need to test mechanisms behind findings.

### ***Methodological Limitations as Related to the CCNES***

Of the 15 studies included in this review, five explicitly mentioned discussion of methodological limitations of the CCNES within the discussion section. Four of these limitations were related to the generalizability of the CCNES to diverse groups, given that it was developed and has been primarily used with White families (e.g., "*Additionally, although this was the first study of our knowledge to conduct and report on exploratory factor analyses of the CCNES in Mexican and Dominican mothers, sample sizes were small for each of these groups. Future research should test the CCNES factor structure in larger samples for a more robust test of differences between Latino families from different countries of origin*"; Pintar Breen et al., 2018), with one study explicitly noting the low internal reliability of the distress reactions subscale (Nelson et al., 2013). One of the five studies (Nelson et al., 2012) discussed the limitations related explicitly to the structure of the CCNES vignettes. The original CCNES only contains one item related to anger and one related to annoyance, and Nelson and colleagues (2012) adjusted the wording of vignettes such that three items explicitly queried parental reactions to anger. However, even with their revised version of the CCNES, the authors noted that vignettes

gauging parent response to child anger only reflected challenges to parental authority, which may potentially confound parental reactions to child anger generally with culturally specific factors related to family dynamics (e.g., the value of obedience to parents).

### ***Discussion of “Supportive” and “Nonsupportive” Responses***

**Validity of CCNES Labels.** A recurring point in nearly half of included studies ( $n = 7$ , 46.67%) was an explicit discussion regarding the “supportive” and “nonsupportive” (also “unsupportive”) composite labels of the CCNES. Given that many study findings indicated that the CCNES subscales are differentially associated with child functioning among African American, Asian, and Latinx families, authors underscored that what is "supportive" or "nonsupportive" is dependent on cultural perspectives and emotion socialization practices are linked to broader socialization goals (e.g., Rodas et al., 2017; Lugo-Candelas et al., 2016). In light of these findings, Leerkes and colleagues (2015) explicitly asserted that it may be inappropriate to use the label "nonsupportive" emotion socialization in diverse samples, given that the impacts of these parental reactions were not uniformly negative, and provided suggestions for using labels without evaluative connotations such as "emotion minimizing socialization" or "emotion controlling socialization."

**Clinical Implications.** Relatedly, a recurrent discussion point was whether culturally tailored parenting interventions may be more fruitful than standardized treatments (e.g., Brown et al., 2015; Rodas et al., 2017; Pinter-Breen et al., 2018). For example, Yang and colleagues (2020) underscored that what represents supportive or nonsupportive reactions varies by culture, and intervention programs should therefore account for families' cultural backgrounds. Authors also noted that for intervention programs implemented with immigrant children, immigrant parents may be advised to socialize their children according to their own cultural values while

simultaneously preparing them for socio-emotional competence within the host culture. In view of parenting interventions that aim to augment positive emotion socialization practices, Dunbar and colleagues (2022) urged practitioners to be cognizant that what is considered "supportive" is related to multiple developmental and sociocultural factors rather than being inherent to the type of parenting behavior itself. Authors provided a concrete example, suggesting that parenting interventions with Black families could consider the role of parents' racial trauma to help parents recognize the reasons they engage in restrictive emotion socialization practices, ultimately facilitating the use of these strategies in moderation while supporting parents' modeling of effective emotion regulation strategies to manage racism-related distress.

### ***Need for Investigation of Mechanisms***

The most frequent recommendation for future research advocated across studies was the need to test mechanisms of how parental reactions to children's negative emotions impact offspring ( $n = 9$ , 60%). Suggestions for culturally-specific mechanisms for future investigation included cultural values (e.g., *familismo* amongst Latinx families; Rodas et al., 2017), family history of immigration (Lugo-Candelas et al., 2016), ethnic identity (Nelson et al., 2013), gender roles (Brown et al., 2015) and ethnicity-specific beliefs about emotional expression and control (Nelson et al., 2012). Authors also posed the need to investigate mechanisms related to experiences shared across various groups of minoritized individuals, such as acculturation (Rodas et al., 2017; Lugo-Candelas et al., 2016; Pintar Breen, 2018), discrimination (Lugo-Candelas et al., 2016; Nelson et al., 2013), and racial socialization (Nelson et al., 2013), including the need to examine within-group variability as related to these processes. In the two studies that did test culturally-specific mechanisms, future directions related to the need to contextualize associations even further. Specifically, the authors advocated for the need to

examine how parental racial and emotion socialization impact offspring mental health longitudinally (Dunbar et al., 2015) and whether parent suppression responses to children's negative emotions are more effective when immediately contextualized by conversations about racism (Dunbar et al., 2022).

## **Discussion**

The current study extended previous reviews of emotion socialization literature in diverse families by focusing on minoritized families within the United States. We also concentrated on a single measure, facilitating the examination of methodological characteristics and comparison of findings. Specifically, this scoping review systematically identified 15 studies that examined parent emotion socialization behaviors, as measured by the Coping with Children's Negative Emotions Scale, among BIPOC families in the United States. The three primary aims of the review were to catalog adaptations and methodological features of the CCNES as it was used within studies, to characterize the scope of variables that were examined in relation to the CCNES and describe their associated findings, and to synthesize discussion regarding limitations and future directions suggested for studying emotion socialization amongst diverse families.

The CCNES is one of the most predominant measures of parent emotion socialization behaviors, with the scale (Fabes et al., 1990) and accompanying psychometric validation paper (Fabes et al., 2002) being cited by over 1000 studies. Therefore, it is especially notable that only 15 studies met the eligibility criteria to be included in this review (i.e., use of the CCNES to measure parent emotion socialization behaviors, a focus on non-White families within the United States). This quantity aligned with previous reviews in which Raval and Walker (2019) identified only 31 studies conducted between 2000 and 2016 that examined emotion socialization with diverse families globally. Further, the search terms of this review had two search strings: one

reflecting emotion socialization processes broadly and one reflecting the demographic characteristics of samples. All studies that appeared to relate to emotion socialization in minoritized families in the United States were retained for the full-text screening stage, and there were only 60 studies retained at this stage of the process. Thus, we can infer that the limited amount of emotion socialization research among BIPOC families appears not to be constrained only to studies utilizing the CCNES. Of the 15 studies included in this review, a majority of study samples consisted of Black/African American families ( $n = 10, 66.67\%$ ), followed by Latinx ( $n = 5, 33.33\%$ ), and Asian/Asian American ( $n = 3, 20\%$ ) families. Only one study included a subsample of Native American families (Brown et al., 2015), specifically including individuals of the Lumbee Tribe, which tested moderators and gender differences in parent emotion socialization behaviors but did not examine their associations with offspring functioning. The small number of studies points to the need for increased research in this important area and suggests that the patterns and associations discussed in the following sections should be considered nascent foundations of a burgeoning field and not be over-generalized.

### **CCNES Methodological Considerations**

#### ***Adaptation***

Concerns regarding cultural considerations of the vignettes themselves and subsequent adaptations were not explicitly noted in the methods of any studies. However, although the process of adapting and creating new vignettes was not explicitly detailed, two studies (Gamble et al., 2007; Pintar Breen et al., 2018) used a version of the CCNES adapted for Mexican immigrant parents that had a more even distribution across negative emotions (an equal number for fear, sadness, anger) compared to the original scale and had qualitatively different vignettes. Additionally, two studies reported altering vignette language to more explicitly gauge parental



response to anger (Nelson et al., 2012; Nelson et al., 2013). The lack of cultural adaptations to the CCNES for use among minoritized families in the United States contrasts with prior findings that the CCNES has been culturally adapted for use globally: in their review, Raval and Walker (2019) identified two methods the CCNES has been adapted in non-U.S. countries including through 1) the use of culturally relevant hypothetical vignettes, including the primary author's own rigorous development of unique culturally relevant hypothetical vignettes in urban India based on focused interviews with mothers and pilot testing (Raval & Martini, 2009), and 2) the inclusion of culturally salient parent responses to children's emotions, such as the inclusion of two new categories of responses in addition to the traditional six subscales among Chinese mothers, with mothers reporting greater use of the culturally salient responses compared to the traditional categories (Chan et al., 2009). The development and utilization of culturally relevant vignettes and salient responses may be a fruitful venture for future researchers examining emotion socialization in BIPOC families within the United States. For example, Nelson et al. (2012) noted that vignettes gauging parent response to child anger only reflected challenges to parental authority, which may potentially confound parental reactions to child anger generally with culturally specific factors related to family dynamics (e.g., the value of obedience to parents). The authors posed that it may be helpful to add vignettes related to multiple types of anger to further elucidate the mechanisms related to African American mothers' suppression of children's negative emotions.

Given that the CCNES was developed among a White middle-class sample, it may have additional limitations related to how relevant the extant vignette stems are among families with different socioeconomic statuses. For instance, one of the sentence stems is as follows: "If my child falls off his/her bike and breaks it, and then gets upset and cries, I would." Possible

response options include: a) remain calm and not let myself get anxious, b) comfort my child and try to get him/her to forget about the accident, c) tell my child that he/she is overreacting, d) help my child figure out how to get the bike fixed, e) tell my child it's OK to cry, and f) tell my child to stop crying or he/she won't be allowed to ride his/her bike anytime soon. All six response options center around responding to the child crying, which precludes considering the context of what a broken bike signifies to the family. Within this vignette, there is an inherent assumption that owning a bike is a ubiquitous experience and that damaging a bike holds the same economic consequence for all families. In the United States, minoritized families are impacted by racism not only at an individual level but also at systemic and structural levels, referring to forms of racism that are pervasively embedded in America's systems, laws, and policies; systemic and structural racism manifest as disparities in generational wealth, education, housing, and healthcare (Bailey et al., 2017). A set of vignettes that produce differential responses depending on family socioeconomic status (SES) may lead to the confounding of race and SES within emotion socialization research. Future researchers may find it fruitful to examine the relevancy of extant CCNES vignette stems among non-White families of various SES groups and adapt them to ensure construct validity. For example, although the authors did not provide explicit details on the selection process for new vignettes, the vignette mentioned above about the child breaking a bike was removed in the CCNES adaption for low-income Mexican immigrant parents (Gamble et al., 2007), and the following vignette for sadness was added: "If relatives were visiting and when it was time for them to leave, my child said he/she would miss them and would be sad, I would."

### *Psychometric Properties*

Of the ten studies that conducted cross-cultural comparisons, only three examined measurement invariance of adapted versions of the CCNES before using it in analyses. Results indicated that generally, the CCNES items did not demonstrate invariance, resulting in the removal of between one and four responses per subscale in two studies conducted with the same cohort of African American and White women (Leerkes et al., 2015; Leerkes et al., 2020), and the removal of half of the vignettes in a study including African American, Lumbee American Indian, and White participants (Brown et al., 2015). These results are particularly alarming given that a fundamental assumption for researchers engaging in cross-cultural comparisons is that an assessment tool measures the same construct across groups. This concern echoes recent work in related areas of developmental research, in which systematic reviews of measurement invariance/equivalence in parenting scales (Rodriguez et al., 2021) and child and adolescent psychopathology scales (Stevanovic et al., 2017) showed that 1) only limited studies tested for measurement invariance across cultural groups; and 2) a majority of extant scales did not show invariance among diverse groups. It may be prudent for future researchers of emotion socialization in diverse families to conduct measurement invariant analyses prior to examining primary study hypotheses when possible. Although a barrier to conducting measurement equivalence analyses may be relatively small sample sizes, it is possible to utilize alternative methods of invariance testing such as Bayesian estimation and generalized structured components analysis. Additionally, recent studies have identified that traditional normal-based maximum likelihood estimator methods are generally reasonably robust to sample size (Finch et al., 2018). When it is not possible to conduct measurement invariance analyses, it may be helpful for researchers to conduct and report preliminary analyses to the extent possible in order to

contextualize subsequent results, such as calculating correlation coefficients between CCNES subscales separately by subsamples, as was done by two of the studies included in this review.

### **CCNES as related to Parent/Child Outcomes**

A recurring finding across studies was that the CCNES was differentially associated with child behaviors in African American, Latinx, and Asian families compared to White subsamples within the same study or prior findings conducted predominantly with White families.

Composites and subscales that have been commonly assumed to be adaptive, such as the “supportive” composite (including the expressive encouragement, emotion-focused reactions, and problem-focused reaction subscales), were not necessarily associated with adaptive functioning in non-White children (e.g., Smith & Walden, 2001). Moreover, reactions to children’s negative emotions that have been labeled as “nonsupportive” or “unsupportive” (e.g., minimization and punitive reactions) were often not associated with negative behaviors and outcomes in non-White children (e.g., Lugo-Candelas et al., 2016). In contextualizing their results, the authors repeatedly emphasized that what constitutes supportive or nonsupportive reactions is dependent on cultural context. This idea aligns with the integrative conceptual model merging parent racial/ethnic and emotion socialization in African American families proposed by Dunbar and Colleagues (2017). In their model, the authors proposed to relabel punitive and minimizing practices as suppression responses rather than calling them nonsupportive responses, noting that practices traditionally considered nonsupportive may be supportive in the sense of being protective and culturally adaptive among African American families. In an exemplar study, Dunbar and colleagues (2022) demonstrated that the impact of such "suppressive" behaviors on child behaviors was dependent on the culturally specific mechanism of parental preparation for bias in African American families. Given the similar pattern of findings among Latinx and Asian

American families, future research should examine culturally specific mechanisms by which parent emotion socialization relates to child functioning in these groups. In sum, the use of the labels "supportive" and "nonsupportive" or "unsupportive" in reference to the CCNES subscales may not be appropriate in minoritized families, given that responses that are traditionally labeled as nonsupportive among White families may represent protective or culturally valued behaviors, and promote adaptive functioning in children.

Even though common patterns emerged among study results, there was still within and between-group variation in associations across the CCNES, emphasizing the critical need for replication of studies and underscoring the nuanced nature of parent emotion socialization in BIPOC families. Ecological systems models such as Bronfenbrenner's ecological systems theory (Bronfenbrenner & Urie, 1998; Tudge & Rosa, 2019) emphasize that a child is embedded within multiple intersecting systems, and such theories are often applied in developmental contexts to examine how individual-level characteristics interact with the various systems that they inhabit to inform development. However, these frameworks still tend to emphasize the universality of developmental trajectories, thereby overlooking within-group heterogeneity and neglecting the role of structural inequity and oppression (Syed et al., 2018). Recent calls have pushed to move beyond ecological systems models toward applying an intersectional framework to developmental research, emphasizing the interdependent and overlapping nature of systemic oppressions (Crenshaw, 1989; Santos & Toomey, 2018). In the current review, it was evident that few studies examined characteristics that may further influence (e.g., moderate or mediate) the association between parent emotion socialization and child functioning. One moderator that was examined in this context was parent and child gender. Gender differences emerged among Black/African American families such that mothers of boys engaged in more suppressive

behaviors with children's negative emotions, and parent suppression of negative emotions predicted lower externalizing problems in boys (Brown et al., 2015; Dunbar et al., 2022). Gender differences were also examined between mothers and fathers, with results indicating that paternal socialization may be less variable across ethnoracial groups and child gender. A future direction to further contextualize these findings that are in line with an intersectional framework would be not only examining mechanisms specific to individual cultures (e.g., attitudes related to traditional gender roles) but also examining the function of emotion socialization behaviors in the context of interlocking systems of oppression surrounding gender and race/ethnicity. Such examples could include teachers perceiving African American boys as more aggressive and threatening than non-Black children (Thomas et al., 2009) or messages of submissiveness and hypersexualization conveyed to Asian American young adult women (Mukkamala & Suyemoto, 2018).

Another important factor to consider in future research in this area is children's developmental stage. The studies included in this study primarily featured families in which children were preschool or school-aged or examined retrospective emotion socialization among adult children, and no studies examined the impact of emotion socialization behaviors among adolescents, even though this developmental period has been postulated to be a critical ancillary period for changes, including to those systems underlying emotion regulation (Guyer et al., 2016). Given the small number of studies overall, examining representation across developmental periods by ethnoracial groups revealed even more notable gaps (e.g., 0 studies including outcomes of Native American children of any age). Providing another challenge to the assumption of universality among parent emotion socialization behaviors, Mirabile and colleagues (2018) identified that among a sample of predominantly White families, the impact of

parent emotion socialization behaviors was dynamic across childhood, such that child age moderated the relations between parent "supportive" emotion socialization behaviors and children's socioeconomic adjustment. For younger children, the supportive behaviors were predictive of decreased problems and better adjustment, but the associations were reversed for older children. From an intersectional perspective, the impact of children's developmental stage on parent emotion socialization behaviors is likely to be even more pronounced and nuanced for BIPOC families in the context of their experiences as a minoritized individuals at each developmental stage and likely to intersect with the developmental trajectory of ethnic/racial socialization processes, as proposed by Dunbar and colleagues (2017) in their integrated theory of ethnoracial and emotion socialization. For example, a recent meta-analytic study (Benner et al., 2018) demonstrated that BIPOC youth experience deleterious effects of ethnoracial discrimination across multiple developmental domains (e.g., depressive and internalizing symptoms, poorer self-esteem, lower academic achievement, increased substance use) during adolescence. Given accumulating evidence that parent emotion socialization processes continue to exert an impact on children's emotion regulation into adolescence (Morris et al., 2017), it may be particularly imperative to examine the conjoint influence of emotion and racial socialization during this developmental period and compare the results to that of other critical influential periods such as preschool.

Finally, most included studies were comparative, such that subsamples of BIPOC families were compared to White families. There is undoubtedly value in cross-cultural comparison and utilizing the group differences approach, especially to serve as a foundation in a field where the majority of extant research has been conducted with the majority culture (i.e., nearly all psychological research). However, the next step is to specify and test the *mechanisms*

of cultural influences on behaviors in underrepresented groups (Hall, Yip & Zarate, 2016). Indeed, the most frequent recommendation for future study in this field among the included studies were calls to examine such mechanisms, which included suggestions of examining proximal factors to emotion socialization such as parent and child emotion regulation, and examining cultural mechanisms including both culturally specific values (e.g., *familisimo* and *respeto* among Latinx families) and shared experiences across BIPOC families in the United States (e.g., discrimination). Among the studies that met inclusion criteria for this review, only two studies (Dunbar et al., 2015; Dunbar et al., 2022) tested such cultural mechanisms, while most studies used race/ethnicity as a predictor, functionally using it as a proxy for culture. Testing mechanisms and moderators will likely help elucidate and contextualize mixed findings in extant studies. Such mechanisms should include factors and values specific to individual cultural groups. However, per García-Coll's theory for minority child development, it is also necessary to examine how emotion socialization intersects with marginalization and mechanisms of social stratification impacting BIPOC in America. Dunbar et al. (2022) provide an elegant example of this process by contextualizing prior findings of the associations between parent emotion socialization responses and child functioning in African American families, showing that the direction and magnitude of associations were dependent on whether or not the parent had engaged in discussions with children preparing them against experiences of prejudice.

### **Review Limitations**

The current systematic scoping review had two notable limitations. First, the study explicitly focused on the widely-used Coping with Children's Negative Emotions Scale and how it has been adapted and used with BIPOC families. Focusing on this measure allowed for the close examination and synthesis of both psychometric features of the CCNES and facilitated



qualitative comparisons across study outcomes. However, the CCNES, and responses to children's emotions more generally, are only one dimension out of the broad range of parent emotion socialization behaviors. Although the current findings align with those of recent reviews focusing on other dimensions of parent emotion socialization in diverse families (e.g., Labella 2018; Raval & Walker, 2019), results from this review should not be generalized across all other measures and constructs of emotion socialization.

Another key limitation to this review was that studies had to be published in a peer-reviewed journal to meet eligibility criteria and be included. This criterion was embedded to certify that articles had been endorsed through the peer-review process and ensured that the ensuing search was exhaustive in identifying the full extent of peer-reviewed publications on this important topic. However, this also suggests that the results synthesized in this review are influenced by publication bias. The institution of academia is no exception to the structural racism that perpetuates disparities in the United States. Psychological research specifically is under-representative of minoritized individuals and over-representative of White individuals across all levels of the research process, from the editors of journals, to authors of papers, to the research participants of studies (Roberts et al., 2020). Thus, the current scoping review should be conceptualized as precisely that: a synthesis surveying the *scope* of extant studies that utilize the CCNES in BIPOC families and a mapping of the contemporary landscape of this literature, rather than a conclusive set of deterministic patterns and findings.

### **Recommendations for Using the CCNES**

Based on the current state of the literature regarding the use of CCNES in minoritized families, the following two recommendations are provided with respect to using the CCNES in future studies and studying parental reactions to children's emotions and their associated impacts

on child functioning. Although the recommendations are framed in the context of this specific measure, the field of developmental science at large continues to grapple with best practices when it comes to utilizing measures that were developed by and with majority-culture groups with underrepresented groups; it is hoped that these suggestions are helpful and applicable for a broad range of measures beyond the CCNES.

First, the subscales of the CCNES have often been combined to form two composite scales, such that the three subscales of expression encouragement, emotion-focused reactions, and problem-focused reactions form one composite, and the three subscales of distress reactions, punitive reactions, and minimization form the other. However, the results of this review noted inconsistent findings regarding the internal consistency of each subscale and within-measure correlations among BIPOC families (e.g., Smith & Walden, 2001). As noted above, future researchers using the CCNES should strive to test measurement invariance of the CCNES when possible and examine factor structure in their own samples to identify whether the composite structures being utilized are appropriate. When sample sizes are not sufficiently large to test measurement invariance, researchers should conduct thorough preliminary analyses and report them in a transparent manner, such that bivariate correlations and internal consistency values are provided at the individual subscales level of the CCNES rather than solely providing this information at the composite level. Additionally, if analyses include cross-cultural comparisons, it may be helpful to provide values for preliminary analyses between CCNES subscales for both subsamples to contextualize effects and further inform composite/subscale selection for subsequent models and hypothesis testing.

Relatedly, patterns of results in studies that were included in this review often diverged from what would have been expected based on studies conducted with majority culture families

under the context of expecting “supportive” parent reactions to be linked with adaptive child functioning and “nonsupportive” parent reactions to be linked with maladaptive child functioning. This finding suggests that it may be fruitful for researchers to construct theory and conceptually-driven hypotheses regarding the function of specific parent emotion socialization behaviors in the context of outcome variables, rather than relying on traditional composite scores and the underlying value judgments associated with them. Therefore, researchers should strive to use labels without value-laden connotations when describing composites. While this suggestion has been more commonly proposed by some of the authors included in this study in regards to the label of "nonsupportive" behaviors, it is equally important and applicable to the composite of "supportive" behaviors, given that the current review suggests differential contexts in which these types of responses are adaptive for children. In place of terms such as "supportive" and "nonsupportive," descriptive language that characterizes the specific emotion socialization behaviors, such as "suppressive behaviors" or "teaching/emotion-coaching behaviors," may be more appropriate and discourage model conceptualizations based on the assumed beneficial or deleterious dimensions of parent behaviors.

## **Conclusion**

The present systematic scoping review provided a mapping of how the Coping with Children's Negative Emotions Scale has been used among non-White families in the United States. There was limited evidence of measurement invariance analyses or culturally specific adaptations to the measure. A common scoring adaptation was to remove the distress reactions subscale. Most studies conducted cross-cultural comparisons using race/ethnicity as a proxy for culture. A dominant pattern of results was that supportive and nonsupportive parent emotion socialization behaviors were differentially related in BIPOC families compared to traditional

associations among White families, although there were mixed findings both within and between groups. Overall, these results suggest that using value-laden terminology such as "supportive" and "nonsupportive" is likely inappropriate. Given these scoping review findings, future researchers are encouraged to conduct measurement invariance analyses when appropriate and possible and otherwise report internal consistency and correlation analyses for individual subscales of the CCNES rather than composites. When using composites, authors are encouraged to use descriptive (e.g., suppressive reactions) rather than evaluative labels. An important next step will be going above and beyond using race/ethnicity as a culture for proxy and testing culturally specific mechanisms behind associations, including examining factors shared between minoritized individuals, such as racial socialization and the impact of discrimination.

## CHAPTER III

### ASSOCIATIONS BETWEEN BLACK/AFRICAN AMERICAN AND WHITE AMERICAN MOTHERS' EMOTION SOCIALIZATION BEHAVIORS AND PRESCHOOLER SOCIOEMOTIONAL FUNCTIONING

Parents play an integral role in the development of children's emotion regulation through their behaviors, and theoretical models have posited that parents engage in specific emotion socialization behaviors that influence children's emotion regulation and expression. The emotion socialization model by Eisenberg and colleagues (1998), about which a recent special issue in 2020 (*Developmental Psychology*) was issued solidifying the influence of this model on the field, underscores the importance of parental reactions to their children's emotions in shaping child emotion regulation development. This framework has been extensively used to guide developmental researchers investigating emotion socialization and child emotion regulation. An abundance of literature has focused on the associations between parental reactions that have been deemed as "supportive" (i.e., encouragement of emotional expression, emotion-focused responses, problem-focused responses) and adaptive child psychosocial functioning (Rogers et al., 2016; Miller-Slough et al., 2018). Conversely, responses labeled as "nonsupportive" (i.e., parental reactions that minimize or punish emotion expressions, parent distress reactions) are often linked to worse child emotion regulation and outcomes (e.g., Shaffer et al., 2012; McKee et al., 2022; Waslin et al., 2022 ). Despite the recent increased attention and highlighting of the importance of parent emotion socialization behaviors within developmental psychology, the majority of extant findings have notably been derived using samples consisting of majority culture participants from the United States. Of the few extant studies examining the associations between parental responses to children's emotions and child functioning among minoritized

families, mixed findings suggest that parental responses to children's emotions may be differentially associated with children's psychosocial functioning compared to the direction and magnitude of associations demonstrated within majority White samples (e.g., Nelson et al., 2012). The current study aimed to extend this work by examining direct associations between Black/African American mothers and White mothers' emotion socialization behaviors and children's emotion regulation. Then, with a small subsample of Black/African American families, associations were examined between maternal racial socialization behaviors, emotion socialization behaviors, and teacher-reported child behaviors.

### **Cultural Differences in Parental Responses to Children's Negative Behaviors**

As demonstrated in the scoping review of this dissertation (Chapter II), findings from the limited number of extant studies suggest that parental responses to children's negative emotions are differentially related to children's socioemotional outcomes in BIPOC families in the United States when compared to the direction of findings within White American families (i.e., what is traditionally cited within emotion socialization literature). Specifically, while there were mixed findings overall, some studies showed that parents from minoritized families may be more likely to endorse "nonsupportive" emotion socialization behaviors, but these "nonsupportive" responses are not necessarily related to adverse child impacts as they are within White families. For instance, among a cohort of African American families, maternal suppressive (i.e., punitive and minimizing reactions) responses to negative emotions were associated with fewer teacher-reported aggressive behavior regulation strategies (Smith & Walden, 2001). Additionally, remembered maternal "nonsupportive" reactions were linked to increased depressive symptoms in White women but were not related to depressive symptoms for African American women (Leerkes et al., 2015). A few studies also demonstrated differential associations of parent

"supportive" reactions, particularly among African American families (Lugo-Candelas et al., 2016; Nelson et al., 2013). For example, Nelson et al. (2013) found that maternal responses encouraging the expression of negative emotions, which is usually labeled as a supportive emotion socialization behavior, were linked to lower kindergarten teacher reports of socioemotional competence in African American children. Most studies investigating parent responses to children's negative emotions within BIPOC families thus far have examined distal child outcomes such as mental health problems, internalizing problems, and externalizing problems. The mixed findings within this literature suggest that examining the direct impact of parent emotion socialization behaviors on child emotion regulation may be a fruitful next step in examining how parent emotion socialization behaviors impact child outcomes among BIPOC families. Among minoritized youth, emotion socialization processes are also likely to be impacted by culturally-specific mechanisms and may overlap functionally with developmental processes such as ethnic-racial socialization practices.

### **Ethnic-Racial Socialization and Emotion Socialization**

Children's developmental trajectories are shaped within a cultural system such that individual-level interactions are shaped by specificity in cultural context, and children further interact with communities and social institutions that are likewise embedded within cultural systems (Vélez-Agosto et al., 2017). Among non-White families in the United States, normative developmental processes include the development of ethnoracial cultural identity, and families' ethnic-racial socialization has been identified as integral in fostering individuals' resilience in the face of ethnic-racial conflict (e.g., Hughes et al., 2017). Ethnic-racial or ethnoracial socialization consists of the processes by which parents inform children about their race and ethnicity, including information about the significance of race and ethnicity, racial and ethnic stratification,

and inter-and intra-group relations (Priest et al., 2014). While familial ethnoracial socialization is a multifaceted construct encompassing many behaviors, two main constructs that have emerged in the literature are cultural socialization and preparation for bias (e.g., Hughes et al., 2006). Cultural socialization promotes cultural pride and teaches children cultural knowledge and traditions. There have been robust associations between cultural socialization and benefits to children's psychosocial functioning, including ethnic-racial identity (e.g., Hernández et al., 2014), academic achievement (e.g., Rivas-Drake & Marchand, 2016), and psychological well-being (e.g., Nguyen et al., 2015). Preparation for bias is a construct primarily studied amongst minoritized families and refers to behaviors where parents prepare children to navigate a society in which they may experience racism and other forms of prejudice because of their ethnic or racial identity. Theoretical models posit that preparation for bias may support positive adjustment for youth by developing effective coping strategies and being prepared for potential discrimination (e.g., Neblett et al., 2012). A recent systematic review examining family ethnoracial socialization identified mixed findings regarding the impact of preparation for bias on child psychosocial functioning (Umaña-Taylor & Hill, 2020), indicating that the associations between preparation for bias and youth adjustment may be dependent on other contextual and environmental factors. For example, preparation for bias was positively associated with youth depressive outcomes in African American mother-adolescent dyads with a poor parent-child relationship, but this association was not significant among dyads reporting high trust and communication (Lambert et al., 2015). Overall, the review underscored the importance of understanding contextual factors to understand the role of racial socialization strategies within families.



## **Emotion Socialization and Racial Socialization in African American Families**

Under the context of racial socialization being a protective mechanism by which minoritized families shield children from the harmful impacts of discrimination, it makes sense conceptually that emotion socialization behaviors would be embedded within racial socialization processes. Namely, the teaching and modeling of emotion regulation strategies is one way parents prepare children to face discrimination to protect them from harm (Dunbar et al., 2015). In a retrospective study, Dunbar and colleagues (2015) conducted a latent profile analysis of African American parents' racial and emotion socialization practices and their links to young adults' emotional functioning. Results identified four profiles for mothers, demonstrating various ways in which parental emotion and racial socialization behaviors covary: 1) cultural-supportive (high cultural socialization and supportive responses to children's emotions), 2) moderate bias preparation (moderate preparation for bias, promotion of mistrust, and nonsupportive responses to negative emotions), 3) high bias preparation (high preparation for bias, promotion of mistrust, and nonsupportive responses), and 4) low engaged (low across both racial socialization and emotion socialization constructs). Subsequently, Dunbar and colleagues (2017) proposed an integrative theoretical model of racial and emotion socialization for African American families, delineating the ways in which ethnic-racial socialization and emotion socialization are overlapping constructs. A key component of the model suggested that among African American families, emotion socialization behaviors may function as an emotion-centered racism-related coping technique and is integral to African American families' broader strategies to protect children from bias. Dunbar et al. (2022) tested this model by examining whether the impact of parental suppressive reactions was moderated by the extent to which parents prepare their children against racism (i.e., preparation for bias) and children's baseline respiratory sinus

arrhythmia (RSA). Results showed that parental suppressive responses were associated with lower externalizing problems in children only when paired with high levels of preparation for bias. For children with high baseline RSA, suppressive responses were associated with greater externalizing problems at low levels of preparation for bias. Parental suppression strategies were also associated with increased internalizing symptoms for children with higher baseline RSA whether or not parents engaged in preparation of bias. Overall, this set of studies suggests that studying parents' emotion socialization practices in the context of racial socialization behaviors may provide additional insight into the roles of specific emotion socialization behaviors and their associations with children's psychosocial functioning.

### **Current Study**

Participants for the current study were drawn from a larger longitudinal study where mother-preschooler dyads were recruited for over-representation of maternal symptoms of Borderline Personality Disorder, a disorder characterized by emotion regulation difficulties. This clinical population is appropriately suited for this study as there will be a high amount of variability in maternal emotion socialization behaviors. Based on the gaps in the literature identified in the systematic scoping review of this dissertation (Chapter II), the current study aimed to extend the work examining emotion socialization behaviors in minoritized families in two ways. First, associations between mothers' emotion socialization behaviors and child emotion regulation indices (effective emotion regulation strategy generation and recognition, negative emotion expression, and on-task behaviors during a frustrating task) were examined between Black/African American and White non-Hispanic mothers. Based on prior literature (e.g., Nelson et al., 2013), we hypothesized that among White dyads, maternal suppressive responses would be associated with less effective child emotion regulation (i.e., less generation

and recognition of emotion regulation strategies, more expression of negative emotions, less on-task behaviors), but that these associations would not be significant for Black/African American dyads. No differences were expected between groups regarding the impact of emotion/problem-focused (i.e., supportive) emotion socialization behaviors (expression encouragement, emotion-focused reactions, problem-focused reactions).

The second aim of this study was to conduct a preliminary examination of maternal racial socialization behaviors (cultural socialization, preparation for bias) as culturally specific factors impacting the association between parent emotion socialization and teacher-reported child behaviors using a small subsample of Black/African American families ( $n = 27$ ). This preliminary examination extended Dunbar and colleagues' (2022) study by including child behavior problems observed by teachers in a classroom setting and examining the role of maternal cultural socialization and emotion/problem-focused emotion socialization behaviors. For maternal cultural socialization, prior research has demonstrated that high levels of parent cultural socialization coupled with supportive emotion socialization responses were associated with decreased offspring depressive symptoms among African American families (Dunbar et al., 2015). Thus, in the current study, a significant interaction was expected such that high cultural socialization would augment the impact of emotion/problem-focused emotion socialization in decreasing teacher-reported child internalizing and externalizing problem behaviors. For maternal preparation for bias, based on the examination of maternal suppressive behaviors and preparation for bias by Dunbar et al. (2022), we hypothesized that there would be a main effect of maternal suppressive responses such that higher suppressive responses would be associated with greater internalizing problems. Additionally, a significant interaction between preparation for bias and suppressive emotion socialization was expected, such that maternal preparation for

bias would mitigate the association between maternal suppressive responses and child internalizing and externalizing problems. Given the small sample size, this set of analyses should be considered preliminary and exploratory in nature.

## **Methods**

### **Participants**

Participants were 129 mother-preschooler dyads in which the mother and child identified as African American or Black, or multiracial including African American or Black ( $n = 32$ , 25%), and dyads in which the mother and child identified as White or European American and non-Hispanic ( $n = 97$ , 75%). The demographic characteristics of participants are described in Table 2. Participants in the current study were part of a larger, two-site longitudinal study examining the impact of maternal emotion regulation on preschooler development. Data were collected at the University of Oregon and the University of Pittsburgh. In brief, two groups of mother-child dyads were recruited for this larger study: around half of the dyads were recruited based on mothers' elevated symptoms of BPD, and half were recruited as an income-matched healthy control group. Dyads were recruited through various sources, including university-based developmental databases, social media advertisements, Head Start, and the Department of Human Services. For the larger study, parent-child dyads participated in four laboratory visits over one year. The present study only included data collected across both sites during participants' initial assessment. The study's preliminary analyses included a subset of 27 Black/African American or multiracial (including African American or Black) families who indicated that they were willing to be recontacted for a follow-up study.

**Table 2.** Demographic characteristics of study participants.

	<b>White, Non-Hispanic (N=97)</b>	<b>Black/African American (N=32)</b>	<b>Overall (N=129)</b>
<b>Maternal Age</b>			
Mean (SD)	33.1 (4.73)	32.4 (5.14)	33.0 (4.83)
Median [Min, Max]	33.0 [22.0, 47.0]	32.4 [23.7, 42.0]	33.0 [22.0, 47.0]
<b>Child Gender</b>			
Male	50 (51.5%)	13 (40.6%)	63 (48.8%)
Female	47 (48.5%)	19 (59.4%)	66 (51.2%)
<b>Maternal Education</b>			
Bachelor's Degree or Higher	52 (53.6%)	14 (43.8%)	66 (51.2%)
<b>Family Annual Income</b>			
≤ 22,310	20 (20.6%)	12 (37.5%)	32 (24.8%)
22,311–30,044	8 (8.2%)	8 (25.0%)	16 (12.4%)
30,045–37,777	11 (11.3%)	1 (3.1%)	12 (9.3%)
37,778–45,510	8 (8.2%)	3 (9.4%)	11 (8.5%)
45,511–53,243	6 (6.2%)	2 (6.3%)	8 (6.2%)
53,244–60,976	5 (5.2%)	0 (0%)	5 (3.9%)
60,977–68,709	6 (6.2%)	1 (3.1%)	7 (5.4%)
68,710–76,442	2 (2.1%)	2 (6.3%)	4 (3.1%)
≥76,443	31 (32.0%)	3 (9.4%)	34 (26.4%)
<b>Public Assistance</b>			
Receipt of Public Assistance	23 (23.7%)	17 (53.1%)	40 (31.0%)

**Procedure**

All procedures were approved by the Institutional Review Board at the respective universities. Mothers' informed consent and child assent were obtained prior to assessment. For in-person appointments, dyads were assessed in offices on university campuses in Eugene and Pittsburgh. All families were compensated \$40 for participating in the initial intake assessment

and \$40 for participating in the baseline assessment. In March 2020, in-person data collection was disrupted and remote data collection was initiated due to the COVID-19 pandemic. Participants who enrolled in the study during remote data collection did not participate in behavioral observation tasks. Mothers who indicated they would be willing to participate in a future study were recontacted beginning in November 2021 to complete a 30-minute survey on maternal emotion regulation, parenting behaviors, and child outcomes. Children were between ages 5 and 7 during the follow-up study. Mothers provided contact information for their child's primary teacher, and teachers were asked to complete a questionnaire assessing children's behaviors in the classroom setting. Mothers who identified as African American or Black or multiracial (including African American or Black) additionally completed the racial socialization and perceived discrimination scales. Mothers received \$30 for completing the follow-up survey.

### ***Eligibility for Larger Study***

To be eligible to participate in the longitudinal study, mothers needed to be at least 18 years of age, have a child between 36-48 months of age with no known developmental disabilities and have at least 50% custody of the child since birth. After phone screening, eligibility was further assessed via in-person clinical interview, during which a trained clinician administered the Structured Clinical Interview for DSM-5 (SCID-5; First et al., 2015) and the Structured Interview for DSM-IV Personality (SIDP-IV; Pfohl et al., 1997) with mothers. Mothers in the high-risk group had to endorse at least 3 BPD symptoms on the SID-P, one of which had to be affective instability or uncontrollable anger. Approximately 20% of intake interviews across both sites were double-coded through video recordings, and results indicated strong inter-rater reliability for enrollment eligibility (Krippendorff's  $\alpha = .92$ ). Mothers in the control group were eligible to participate if they did not have a history of psychiatric illness since

the conception of the participating child. Mothers in the control group also could not endorse any symptoms of BPD on the SID-P and could not endorse subclinical levels on the affective instability and uncontrolled anger items (i.e., their score on these two criteria had to be 0). Any mothers in a current psychotic or manic episode were deemed ineligible. All mothers and children also completed the Peabody Picture Vocabulary Test Fourth Edition (PPVT-IV; Dunn & Dunn, 2007), and mothers had to demonstrate standard scores of at least 70 to be eligible for participation. Mothers in the high-risk group were randomized into either Dialectical Behavior Therapy (DBT) Skills treatment or Family Services As Usual.

### ***Baseline Assessment***

After confirming eligibility, mother-child dyads were scheduled to complete a 2.5-hour baseline assessment within four weeks after the clinical intake. Assessments were conducted by trained research assistants blinded to the participant's group status and included a series of questionnaires for mothers regarding their mental health, parenting behaviors, and their child's behaviors. Meanwhile, children completed a series of behavioral tasks in an adjacent room. Dyads participated in four assessments over one year, but data for the first study aim included baseline assessment only.

### **Measures**

#### ***Demographic Information***

Mothers completed a demographic questionnaire during the intake assessment, including questions about their ethnoracial identity, annual household income, education, and whether or not they received any public financial assistance (e.g., WIC, food stamps). Mothers also answered demographic questions about their children. For questions regarding racial identity, the survey was formatted such that participants were able to select multiple options as applicable.

### ***Maternal Emotion Socialization***

Maternal self-report of emotion socialization behaviors was assessed using the CCNES (Fabes et al., 2002). The CCNES consists of 12 hypothetical vignettes describing scenarios that might elicit a negative emotion (fear, anger, sadness) in their child. Six possible responses to the child's distress are presented for each vignette. Mothers rated their likelihood of using each of the six responses on a scale from 1 (“*Very Unlikely*”) to 7 (“*Very Likely*”). The six responses correspond to one of six subscales: Distress Reactions, Punitive Reactions, Minimization, Expressive Encouragement, Emotion-Focused Reactions, and Problem-Focused Reactions. Scores on subscales are calculated by averaging the scores for each subscale across the 12 vignettes. Two composite scores can additionally be derived from the subscales, often labeled as “supportive” (comprised of the Expressive Encouragement, Emotion-Focused Reactions, and Problem-Focused Reactions scales) and “nonsupportive” (comprised of Distress Reactions, Punitive Reactions, and Minimization) behaviors in extant literature. Given prior studies that suggest punitive and minimizing emotion socialization practices are differentially associated across White and Black American families and that the Distress Reactions subscale demonstrates inconsistent reliability, a composite score of the Punitive Reactions and Minimization subscale, denoted as “suppressive responses,” was created and used to study hypotheses in lieu of using the traditional “nonsupportive” composite (Dunbar et al., 2017; Dunbar et al., 2022). Additionally, given mixed findings in extant literature regarding the association between the “supportive” composite and adaptive functioning in non-majority families, the term “emotion/problem-focused responses” were used to describe the composite score of the Expressive Encouragement, Emotion-Focused Reactions, and Problem-Focused Reaction subscales. Bivariate correlations among the six CCNES subscales and Cronbach's alpha values are reported separately for



Black/African American mothers and White mothers (Table 3). Internal consistency values for the CCNES subscales for follow-up data can be found in Table 9.

**Table 3.** Bivariate correlations and internal consistencies of CCNES Subscales – Baseline Data.

<i>Variable</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>α</i>
<i>1. Expression Encouragement</i>	--	.47**	.47**	-.57**	-.57**	-.50**	.88
<i>2. Emotion-Focused</i>	.23*	--	.84**	-.35*	-.30	-.14	.82
<i>3. Problem-Focused</i>	.55**	.49**	--	-.50**	-.19	-.17	.75
<i>4. Distress Reaction</i>	-.38**	-.17	-.28**	--	.57**	.40*	.65
<i>5. Punitive Reaction</i>	-.24*	-.05	-.10	.53**	--	.70**	.78
<i>6. Minimization</i>	-.20	.07	.12	.41**	.69**	--	.81
<i>Cronbach's α</i>	.91	.83	.75	.78	.74	.79	--

*Note.* Correlations and Cronbach's alphas for Black/African American mothers are reported above the diagonal. Correlations and Cronbach's alphas for White mothers are reported below the diagonal. \* indicates  $p < .05$ . \*\* indicates  $p < .01$ .

### ***Maternal Emotion Regulation***

Maternal emotion regulation was measured using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004), a 36-item self-report questionnaire that assesses current difficulties with emotion regulation. Participants are asked to rate the frequency to which the item relates to them on a 5-point Likert scale (1 = "Almost Never," 5 = "Almost Always"). Items are summed to yield a total score, with higher scores indicating higher levels of emotion regulation difficulty. The DERS also yields six subscales: lack of emotional awareness, lack of emotional clarity, limited emotion regulation strategies, difficulties with impulse control, difficulties engaging in goal-directed behavior, and nonacceptance of emotional responses. Given that a subset of participants in the current study demonstrated elevated symptoms of

Borderline Personality Disorder, a disorder characterized by emotion dysregulation, the DERS total score was used as a covariate for analyses in the current study in order to examine the unique impact of emotion socialization behaviors above and beyond maternal difficulties with emotion. The DERS has previously demonstrated similar psychometric properties between White and African American groups (Ritschel et al., 2015). Internal reliability for the DERS was very high at baseline (Cronbach's  $\alpha = .97$ ) and follow-up (Cronbach's  $\alpha = .96$ ).

### ***Racial Socialization***

Maternal racial socialization was measured using the cultural socialization and preparation for bias subscales from Hughes and Chen's (1997) measure of racial socialization. Participants were prompted by the question, "During the past year, how often have you talked about or done the following with your child?" Four items measured cultural socialization (e.g., "Taken your child to Black cultural events"), and seven items measured preparation for bias (e.g., "Told your child that people might treat them badly due to race"). Response choices were on a 5-point Likert scale from 1 ("Never") to 5 ("Very Often"). Items were summed for each subscale, with higher values indicating higher levels of cultural socialization or preparation for bias. Internal reliability was high for both cultural socialization (Cronbach's  $\alpha = .90$ ) and preparation for bias (Cronbach's  $\alpha = .89$ ).

### ***Perceived Racial Discrimination***

Maternal perceived experiences of racial discrimination were measured with the Everyday Discrimination Scale (Williams et al., 1997). The Everyday Discrimination Scale consists of 10 items prompted by the question, "In your day-to-day life, how often have any of the following things happened to you because of your race?" Responses were on a 6-point Likert scale from 1 ("Never") to 6 ("Almost Every Day"). Items were summed, with higher scores

indicating higher perceived levels of racial discrimination. The current sample's internal consistency was high (Cronbach's  $\alpha = .95$ ).

### ***Child Emotion Regulation***

**Frustration Regulation.** Children's frustration regulation was assessed using the locked box task (Laboratory Temperament Assessment Battery; Goldsmith & Rothbart, 1996), an ecologically valid frustration-eliciting task. During the locked box task, children were shown an array of desirable toys and asked to select one they would like to keep. The research assistant then placed the selected toy inside of a transparent box, locked the box, and told the child that once they opened the locked box, they could keep the toy. The research assistant then asked the child to work independently to open the box for 2 minutes with an incorrect set of keys. Following the 2-minute period, the research assistant explained they had mistakenly given the child the incorrect keys, provided the child with the correct key, and helped the child open the box and retrieve the toy.

During the locked box task, children's anger expression, sadness expression, and on-task or problem-solving behaviors were coded in 4, 30-second epochs. For emotion coding, cues for anger included facial and postural cues (e.g., a furrowed brow, eyes narrowed, clenched or set jaw) and vocal cues (e.g., harsh vocal tone, protesting vocalizations). Similarly, facial, postural, and vocal cues were used to code sadness (e.g., lip corners pulled down, quivering bottom lip, slumped shoulders and/or body, whining vocalizations without protest quality). On-task behavior included the child using strategies to solve the problem, working toward opening the box and seeking information from the experimenter about how to open the box. For each dimension (anger expression, sadness expression, on-task behaviors), each epoch received a score of 0 (*none or minimal behaviors exhibited*), 1 (*behaviors exhibited for about half of the epoch*), or 2

(*behavior exhibited for nearly all or all of the epoch*), and 10% of participants were double-coded to assess reliability. Intraclass correlations averaged across the four epochs indicated moderate to good agreement and were as follows: Anger Expression ICC = .79; Sadness Expression ICC = .76; On-task Behaviors ICC = .67. Scores for each epoch were then summed and divided by 8 to create a proportion score, with higher scores indicating a higher proportion of emotion expression or on-task behaviors.

**Emotion Regulation Knowledge.** Children's generation and recognition of effective strategies for regulating anger and sadness were assessed using a puppet task (Cole et al., 2009), during which puppets presented children with a series of three vignettes centered around a single emotion (happy, angry, sad). At the end of the vignette, children were asked to help the puppets and queried how they could stop feeling the target emotion (e.g., "What's the best way to stop feeling so angry?"). Children were allowed to freely generate emotion regulation strategies until they had exhausted their list. After 30 seconds of silence, experimenters prompted the child to respond one more time by asking how else the puppet could stop feeling the target emotion. Each effective strategy identified by the child received a score of 1, and strategies were tallied such that higher scores indicate a greater number of effective emotion regulation strategies generated. After the strategy generation portion, recognition of effective emotion regulation strategies was assessed where for each target emotion, the puppet presented three pairs of emotion strategies that could be utilized to stop feeling the emotion. Of these pairs, one strategy presented was appropriate and effective (e.g., problem-solving), while the other was less effective (e.g., hitting). Children were then asked to identify the strategy most effective for the puppet to stop feeling the target emotion. Each effective strategy identified by the child received a score of 1, with higher scores indicating greater emotion regulation strategy recognition. Scores from the strategy

generation and recognition phase were then summed for each emotion to create a total score representing emotion regulation knowledge. Given that the target of this study relates to emotion socialization and regulation in the context of children's negative emotions, the scores for anger regulation strategies and sadness regulation strategies were used to test the study hypotheses.

### ***Child Internalizing and Externalizing Behavior***

For follow-up data, child internalizing and externalizing behaviors were assessed via teacher-report using the Teacher Report Form (TRF; Achenbach, 1991). The TRF contains 113 items that assess a broad range of children's behaviors as observed by teachers in a classroom setting. Each item consists of a statement about children's behavior, and teachers are asked to rate items on a 3-point Likert scale ranging from 0 ("Not True") to 3 ("Often True"). The internalizing and externalizing scale scores were used for analyses. Children's teacher-reported internalizing (Cronbach's  $\alpha = .89$ ) and externalizing scores (Cronbach's  $\alpha = .95$ ) demonstrated high internal consistency in this sample.

### **Data Preparation**

Missing data were examined using the *naniar* package in *R* (Tierney & Cook, 2018). At baseline assessment, 6.7% of data were missing overall, with the highest missingness occurring on the child emotion strategy generation (15.5%) and locked box (11.6%) tasks. Less than 2% of data were missing for maternal emotion regulation and emotion socialization measures. Primary reasons for missing data included technical errors that led to missing videos for eight dyads and six dyads who were enrolled during the COVID-19 pandemic and therefore did not participate in the child tasks. Baseline data were missing completely at random based on Little's MCAR Test  $\chi^2(26) = 34.6, p = .12$ . Missing data were additionally unrelated to family income, site differences, child gender, and maternal ethnracial identity. For analyses conducted with follow-

up study data from Black/African American and multiracial mothers, 4.9% of data were missing overall, with the highest being due to missing teacher data on the TRF ( $n = 3$ ). Missingness on the TRF was unrelated to family income, site differences, and child gender. Follow-up data were missing completely at random based on Little's MCAR Test  $\chi^2(26) = 26.9, p = .41$ . Data were analyzed for multivariate outliers using Mahalanobi's distance and a critical alpha value of .001, and no outliers were identified at baseline or follow-up.

Prior to hypothesis testing, missing data were treated with multiple imputations through chained equations using the *R* package *mice* (van Buuren & Groothuis-Oudshoorn, 2011). Predictive mean matching was used to replace missing values at baseline assessment based on maternal racial identity, child gender, receipt of public assistance, family income, child emotion regulation tasks, maternal emotion socialization, and maternal emotion regulation as predictors. For the follow-up study, predictive mean matching was used to replace missing values based on child gender, receipt of public assistance, family income, maternal emotion socialization, maternal emotion regulation, racial socialization measures, and teacher-reported child behaviors. Results of all analyses did not differ between the pooled imputed datasets and pairwise deletion using the non-imputed datasets; the results presented are based on the imputed datasets.

### **Analytic Plan**

All analyses were conducted using *R* software 4.2.0 (R Core Team, 2022). Continuous variables were mean-centered and standardized prior to conducting regression analyses in order to reduce multicollinearity resulting from interaction terms. Given this cohort's clinical nature, such that a portion of participants demonstrated significant emotion regulation difficulties, maternal difficulty with emotion regulation was included as an a priori covariate in all regression

analyses to capture the effect of maternal emotion socialization behaviors above and beyond maternal emotion regulation.

### ***Baseline Assessment***

Prior to testing study hypotheses, independent *t*-tests and chi-square analyses were conducted to test whether there were demographic differences (e.g., age, education, receipt of public assistance) between Black/African American mothers and White mothers that should be accounted for across analyses. Additionally, the association between site, child gender, and child emotion regulation indices was examined to determine whether they should be included as covariates in analyses. A series of parallel multiple regression models predicting child emotion regulation indices (anger expression, sadness expression, on-task behaviors, sadness regulation strategies, and anger regulation strategies) were conducted to test study hypotheses. Predictors included covariates, main effects of maternal racial identity and emotion socialization composites (suppressive responses, emotion/problem-focused responses), and interaction terms between maternal racial identity and the emotion socialization composites. Examination of variance inflation statistics for models indicated that all variance inflation factors were less than 2.5, indicating it was appropriate to proceed with including this set of predictors within the same model. Given the number of regression models tested for child emotion regulation variables, Bonferroni corrections were applied to reduce the inflation of Type I error rates, adjusting the significant criterion to  $p < .01$ . Because of the very conservative nature of this correction and resultant depletion of power, findings significant at  $p < .05$  are discussed, with those that remain significant following the Bonferroni corrections indicated as such in the tabled results.

### ***Follow-up Data***

For data collected during the follow-up study, Pearson's correlation coefficients were used to examine bivariate associations between study variables. Then, two parallel multiple regression models were conducted to predict teacher-reported child internalizing and externalizing behaviors. Based on prior literature documenting robust gender differences in teacher reports of internalizing and externalizing behaviors (e.g., Rescorla et al., 2007), child gender was included as an a priori covariate in the two regression models. Additionally, *t*-tests were used to examine the association between site, receipt of public assistance, and child behavior problems to determine whether they should be included as covariates in analyses. Predictors for the two regression models included covariates, the main effects of racial socialization (cultural socialization, preparation for bias) and emotion socialization composites, an interaction term between maternal preparation for bias and maternal suppressive responses, and an interaction term between maternal cultural socialization and maternal emotion/problem-focused responses. Examination of variance inflation statistics for the two models indicated that all variance inflation factors were less than 2.5, indicating it was appropriate to proceed with including this set of predictors within the same model.

## **Results**

### **Preliminary Analyses – Baseline**

#### ***Identifying Covariates***

There were no significant differences between Black/African American and White mothers in regards to maternal education (dichotomized for whether or not the participant had achieved a bachelor's degree), maternal age, or child gender ( $p$ s > .05). Black/African American participants were significantly more likely to endorse receiving public assistance  $\chi^2(1) = 9.73, p$



= 0.002. Therefore, receipt of public assistance was included as a covariate when conducting cross-cultural comparisons to ensure that it did not account for observed differences between ethnoracial groups. There were no differences in child emotion regulation tasks between sites accounting for ethnoracial groups ( $ps > .05$ ). Child gender was significantly related to children's proportion of on-task behaviors during the frustration regulation task, such that girls demonstrated a higher proportion of on-task behaviors ( $M = 0.68, SE = 0.04$ ) compared to boys ( $M = 0.54, SE = 0.049$ ),  $t(99.72) = -2.16, p = .033$ . Child gender was therefore included as a covariate in the regression model predicting on-task behavior.

### ***Mean Differences***

Descriptive statistics for all key variables collected at baseline are reported separately for Black/African American and White participants in Table 4. Mean differences in key variables depending on maternal racial identity were examined using independent t-tests. Results indicated that Black/African American mothers reported higher suppressive responses ( $M = 2.58, SE = 0.062$ ) compared to White mothers ( $M = 1.99, SE = 0.15$ ),  $t(42.52) = -3.67, p < .001$ . There were no other significant differences between mothers for maternal emotion regulation, emotion/problem-focused responses, and child emotion regulation tasks.

**Table 4.** Descriptive statistics by ethnoracial group— Baseline Data.

<b>Variables</b>	<b>White/European American</b>			<b>Black/African American</b>		
	<b>Mean</b>	<b>SD</b>	<b>Range</b>	<b>Mean</b>	<b>SD</b>	<b>Range</b>
M Emotion+ Problem-Focused ES	5.78	0.64	4.25 – 7.00	5.72	0.75	3.94 – 6.75
M Suppressive ES	1.99	0.61	1.04 – 5.08	2.58	0.84	1.48 – 4.83
M Emotion Dysregulation	79.76	30.53	36 – 140	92.12	34.99	36 – 158
C Anger Regulation Strategies	2.69	1.45	0 – 8	2.32	1.36	0 – 5
C Sadness Regulation Strategies	2.74	1.31	0 – 7	2.79	1.62	0 – 7
C Proportion Anger Expression	0.28	0.22	0 – 0.88	0.28	0.25	0 – 0.88
C Proportion Sadness Expression	0.14	0.22	0 – 1.00	0.09	0.18	0 – 0.75
C Proportion On Task	0.63	0.32	0 – 1.00	0.58	0.36	0 – 1.00

*Note.* M= Maternal. C= Child. SD= Standard Deviation.

### **Bivariate Associations – Baseline**

Bivariate correlations between all key study variables at the baseline assessment are reported separately for Black/African American and White participants in Table 5. For White participants, emotion/problem-focused emotion socialization was negatively associated with maternal difficulties with emotion regulation ( $r = -.28$ ) and children's generation and recognition of anger regulation strategies ( $r = -.22$ ), but for Black/African American participants these associations were not significant and correlation coefficients were smaller in magnitude ( $r = -.13$ ;  $r = .03$ ). For Black/African American mothers, maternal suppressive emotion socialization was positively associated with maternal emotion regulation difficulties ( $r = .37$ ), but this association was not significant for White mothers ( $r = .19$ ). Notably, while the two emotion socialization composites of suppressive and emotion/problem-focused responses had a moderate negative correlation for Black/African American participants ( $r = -.45$ ), the two composites were not significantly associated for White participants ( $r = -.12$ ). Among child emotion regulation

variables, moderate positive associations were observed across the sample between the proportion of anger expression and sadness expression during the frustration regulation task. The proportion of sadness expression was inversely related to the proportion of on-task behaviors across the whole sample. However, the magnitude of correlation coefficients indicated the presence of a moderate association for Black/African American children ( $r = -.56$ ) and a weaker association for White children ( $r = -.24$ ). For White children, there was a moderate significant association between child anger and sadness regulation knowledge ( $r = .55$ ). Knowledge of anger and sadness strategies were not significantly correlated among Black/African American children ( $r = .28$ ).

**Table 5.** Bivariate correlations of key study variables— Baseline Data.

Variable	1	2	3	4	5	6	7	8
1. M Emotion Dysregulation	--	-.13	.37*	.18	-.20	-.20	.15	-.31
2. M Emotion/Problem-Focused ES	-.28**	--	-.45**	.03	.29	-.09	.09	-.22
3. M Suppressive ES	.19	-.12	--	.12	-.003	-.17	-.12	-.002
4. C Anger Regulation Strategies	.13	-.22*	.19	--	.28	-.24	-.13	.09
5. C Sadness Regulation Strategies	-.12	-.11	.16	.55**	--	.09	.10	-.17
6. C Proportion Anger Expression	-.16	.12	-.14	.02	.09	--	.43*	-.29
7. C Proportion Sadness Expression	-.13	-.03	-.06	.11	.04	.38**	--	-.56*
8. C Proportion On Task	-.04	-.11	.20	.07	.11	-.05	-.24*	--

*Note.* M= Maternal. C= Child. Correlations for Black/African American participants are reported above the diagonal. Correlations for White participants are reported below the diagonal.

\* indicates  $p < .05$ . \*\* indicates  $p < .01$ .

## **Effect of Maternal Racial Identity and Emotion Socialization Responses on Child**

### **Frustration Regulation**

Three parallel models were conducted predicting the proportion of anger expression, sadness expression, and on-task behaviors throughout the Locked Box task. The results of each model are presented in Table 6. Maternal emotion socialization and racial identity did not significantly predict the proportion of child anger or sadness expression. In the model predicting the proportion of child on-task behaviors, controlling for child gender, there was a significant main effect of maternal suppressive emotion socialization, such that higher suppressive responses were associated with a higher proportion of on-task behaviors during the task  $t(120) = 2.15, p = .034$ . No significant interaction effects were identified.

**Table 6.** Regression model predicting child frustration regulation behaviors from maternal emotion socialization and racial identity.

	<i>Dependent variable:</i>		
	Anger Expression	Sadness Expression	On-task Behavior
	(1)	(2)	(3)
M Emotion Dysregulation	-0.14 (0.10)	-0.06 (0.10)	-0.10 (0.10)
Receipt of Public Assistance	-0.11 (0.20)	-0.22 (0.21)	-0.05 (0.20)
Child Gender			0.42** (0.18)
M Racial Identity	0.33 (0.23)	-0.09 (0.24)	-0.19 (0.23)
M Suppressive Response (SR)	-0.18 (0.12)	-0.08 (0.12)	0.26** (0.12)
M Emotion/Problem-Focused Response (EPR)	0.09 (0.11)	-0.11 (0.11)	-0.03 (0.11)
SR*Racial Identity	0.01 (0.21)	0.01 (0.21)	-0.30 (0.21)
EPR*Racial Identity	-0.16 (0.21)	0.14 (0.21)	-0.22 (0.21)
Constant	-0.05 (0.12)	0.09 (0.12)	-0.11 (0.14)
Observations	129	129	129
R <sup>2</sup>	0.08	0.04	0.10
F Statistic	1.41 (df = 7; 121)	0.70 (df = 7; 121)	1.72** (df = 8; 120)

*Note.* \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ . M= Maternal. Dependent variables are proportion scores. Standard errors for standardized regression coefficients are noted in parentheses. Bolded values are those that remain significant following Bonferroni correction to  $p < .01$ .

## **Effect of Maternal Racial Identity and Emotion Socialization Responses on Child Emotion Regulation Knowledge**

Two models were conducted to predict children's knowledge of anger and sadness regulation strategies.<sup>2</sup> The results of each model are presented in Table 7. Maternal emotion socialization and racial identity did not significantly predict anger regulation strategies. In the model predicting child sadness regulation, the main effects of maternal racial identity and maternal emotion socialization responses were not significant, but there was a significant interaction effect between maternal racial identity and emotion/problem-focused emotion socialization responses,  $t(121) = 2.93, p = .004$ . As shown in Figure 2, simple slopes analyses indicated that for Black/African American dyads, there was a positive association between mothers' emotion/problem-focused emotion socialization and children's generation and recognition of sadness regulation strategies,  $t(121) = 2.68, p = .008$ . This association was not significant for White dyads,  $t(121) = -1.24, p = .22$ .

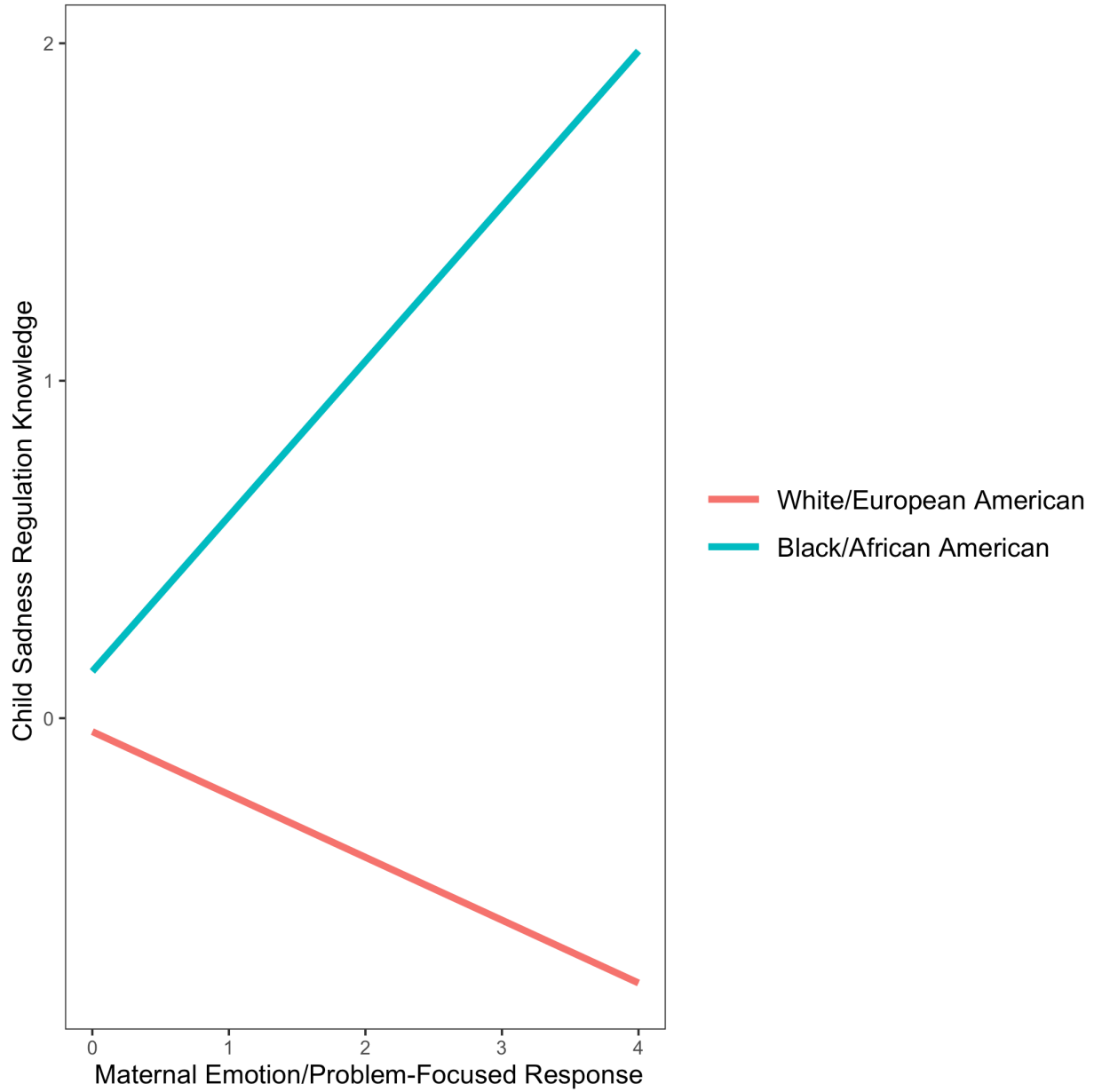
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<sup>2</sup> Given the verbal load of the emotion strategies task, a sensitivity analysis was conducted by analyzing models that included child receptive language skills (PPVT) as a covariate; results indicated no differences in the significance of key predictors, and the initial model results are presented above.

**Table 7.** Regression model predicting child emotion regulation strategy recognition and generation from maternal emotion socialization and maternal racial identity.

	<i>Dependent variable:</i>	
	Anger Regulation Strategies	Sadness Regulation Strategies
	(1)	(2)
M Emotion Dysregulation	0.15 (0.10)	<b>-0.27***</b> (0.09)
Receipt of Public Assistance	-0.26 (0.20)	-0.20 (0.20)
M Racial Identity	-0.44* (0.23)	0.08 (0.22)
M Suppressive Response (SR)	0.17 (0.12)	0.18 (0.12)
M Emotion/Problem-Focused Response (EPR)	-0.14 (0.11)	-0.13 (0.11)
SR*Racial Identity	-0.10 (0.21)	0.12 (0.20)
EPR*Racial Identity	0.18 (0.21)	<b>0.59***</b> (0.20)
Constant	0.21* (0.11)	0.04 (0.11)
Observations	129	129
R <sup>2</sup>	0.10	0.14
F Statistic (df = 7; 121)	1.94*	2.73**

*Note.* \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ . M= Maternal. Standard errors for standardized regression coefficients are noted in parentheses. Bolded values are those that remain significant following Bonferroni correction to  $p < .01$ .



**Figure 2.** Interaction effect of emotion/problem-focused emotion socialization and maternal racial identity on children’s generation and recognition of sadness regulation strategies.



### Preliminary Analyses – Follow-up

Only dyads identifying as Black/African American who participated in the follow-up study ( $n = 27$ ) were included for follow-up data analyses, including preliminary analyses and hypothesis testing. Descriptive statistics of all key variables are presented in Table 8.

Independent t-tests indicated no significant differences in teacher-reported internalizing and externalizing behaviors based on study site, mothers' endorsement of receiving public assistance, or maternal education ( $ps > .05$ ). There was also no significant association between teacher-reported internalizing and externalizing behaviors and maternal age ( $ps > .05$ ).

**Table 8.** Descriptive statistics— Follow-up Data.

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>Range</b>
1. Perceived Racial Discrimination	22.79	11.38	9.00 – 52.00
2. Preparation for Bias	18.12	6.94	7.00 – 34.00
3. Cultural Socialization	13.27	4.63	6.00 – 20.00
4. Emotion Dysregulation	78.08	27.16	36.00 – 123.00
5. Suppressive Responses	2.35	0.85	1.09 – 5.18
6. Emotion/Problem-Focused Responses	5.70	0.85	3.24 – 6.73
7. Child Internalizing Problems	4.33	4.46	0.00 – 1.00
8. Child Externalizing Problems	4.75	6.81	0.00 – 28.00

*Note.* SD = Standard Deviation.

### Bivariate Associations – Follow-up

Bivariate associations between maternal perception of racial discrimination, racial socialization measures, and individual subscales on the CCNES are reported in Table 9.

Regarding associations with individual emotion socialization subscales, maternal perception of racial discrimination was negatively associated with distress reactions ( $r = -.43$ ).

**Table 9.** Bivariate correlations and internal consistencies of CCNES subscales, racial socialization, and perceived discrimination – Follow-up Data.

Variable	1	2	3	4	5	6	7	8	9
1. Perceived Racial Discrimination	--								
2. Preparation for Bias	.46*	--							
3. Cultural Socialization	.30	.44*	--						
4. Expression Encouragement	-.10	.06	-.18	--					
5. Emotion Focused	.09	.02	-.31	.71**	--				
6. Problem Focused	.16	.21	-.21	.69**	.88**	--			
7. Distress Reaction	-.43*	-.13	-.13	-.18	-.33	-.27	--		
8. Punitive Reaction	.07	-.13	-.19	.07	.13	.19	.22	--	
9. Minimization	.25	.29	-.08	-.13	-.12	.03	.01	.69**	--
Cronbach's $\alpha$	.95	.89	.90	.84	.79	.79	.65	.75	.81

Note. \* $p < .05$ ; \*\* $p < .01$

Bivariate associations between maternal perceived racial discrimination, racial socialization behaviors, emotion socialization composites, and child behavior problems are reported in Table 10. Maternal endorsement of preparation for bias was moderately positively associated with perceived racial discrimination ( $r = .46$ ) and cultural socialization behaviors ( $r = .44$ ). Maternal emotion/problem-focused emotion socialization responses were negatively associated with teacher-reported externalizing behaviors ( $r = -.53$ ). Child internalizing and externalizing behaviors were positively associated ( $r = .55$ ).

**Table 10.** Bivariate correlations of key study variables – Follow-up Data.

Variable	1	2	3	4	5	6	7
1. Perceived Racial Discrimination	--						
2. Preparation for Bias	.46*	--					
3. Cultural Socialization	.30	.44*	--				
4. Emotion Dysregulation	-.10	-.09	-.17	--			
5. Suppressive Responses	.18	.08	-.15	.04	--		
6. Emotion/Problem-Focused Responses	.04	.10	-.25	-.04	.03	--	
7. Child Internalizing Problems	.17	.10	.12	.18	.25	-.14	--
8. Child Externalizing Problems	-.01	.12	.34	.42	-.01	-.53**	.55**

Note. \* $p < .05$ ; \*\* $p < .01$ .

## Effect of Maternal Racial Socialization and Emotion Socialization Responses on Child

### Internalizing and Externalizing Behaviors

Two parallel models were conducted predicting teacher-reported child internalizing and externalizing behaviors. The results of each model are presented in Table 11.

#### *Child Internalizing Behaviors*

In the model predicting teacher-reported child internalizing behaviors, there was a significant main effect of maternal suppressive emotion socialization responses such that higher suppressive responses were associated with higher internalizing problems in children,  $t(18) = 2.50, p = .022$ . The main effects of maternal racial socialization and emotion/problem-focused emotion socialization were not significant. The interaction term between maternal cultural socialization and emotion/problem-focused emotion socialization was significant,  $t(18) = -3.32, p = .004$ . Simple slopes for the association between emotion/problem-focused emotion socialization and child internalizing behaviors were tested for low (-1 standard deviation below the means), mean, and high (+1 standard deviation above the mean) levels of cultural socialization. Analyses were corrected for multiple comparisons using the multivariate  $t$

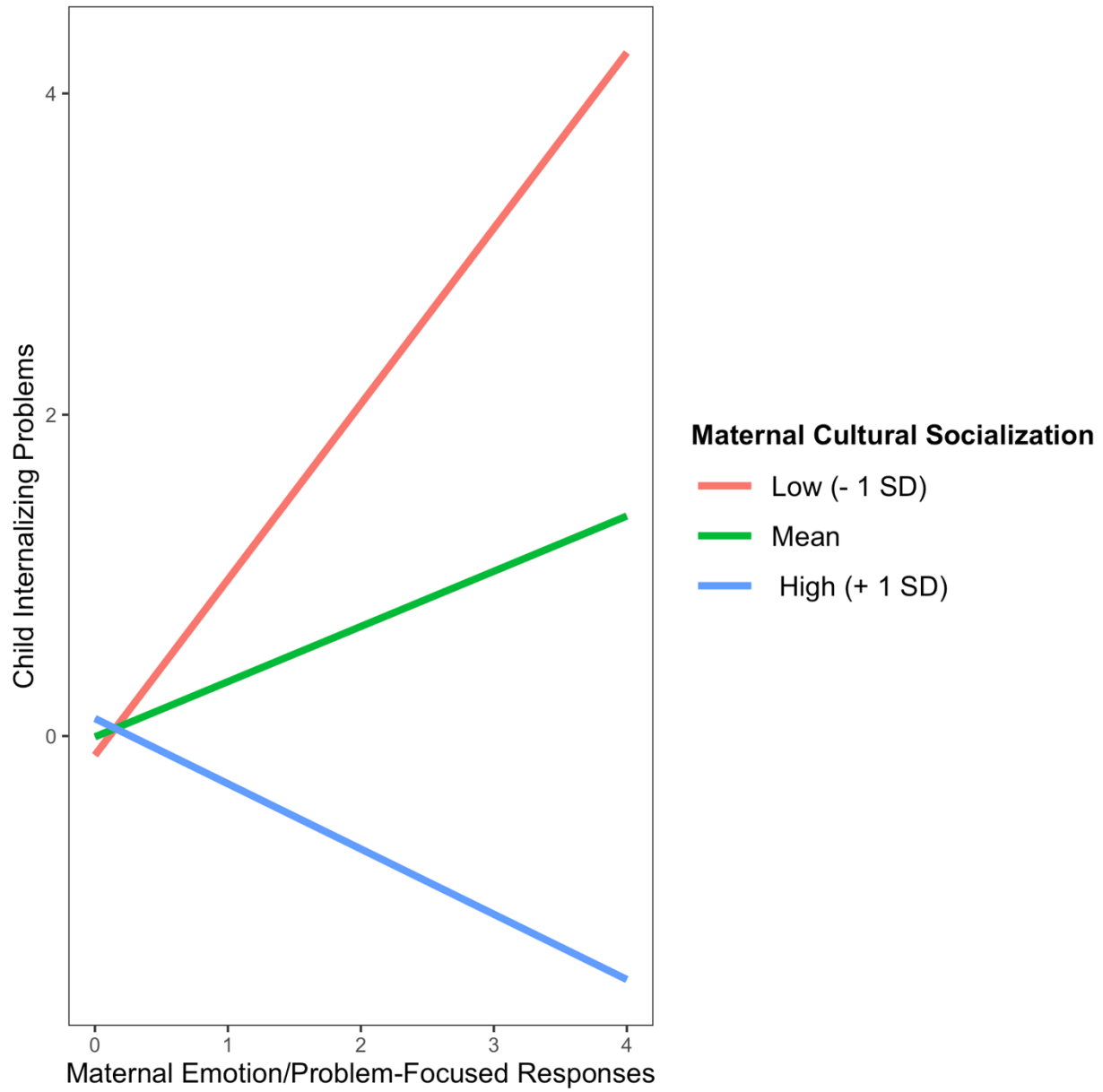
distribution and the *mvtnorm* package in *R*. As shown in Figure 3, simple slopes analyses indicated that at low levels of maternal cultural socialization behaviors, there was a positive association between maternal emotion/problem-focused emotion socialization and teacher-reported child internalizing problems,  $t(18) = 2.81, p = .027$ . There was no association between maternal emotion/problem-focused reactions and children's internalizing problems at mean levels of maternal cultural socialization behaviors,  $\beta = 0.34, t(18) = 1.53, p = .29$ , or high levels of cultural socialization,  $t(18) = -1.73, p = .19$ .

There was also a significant interaction between maternal preparation for bias and suppressive emotion socialization responses  $t(18) = -2.93, p = .009$ . Simple slopes for the association between suppressive emotion socialization and child internalizing behaviors were tested for low (-1 standard deviation below the mean), mean, and high (+1 standard deviation above the mean) levels of maternal preparation for bias, corrected for multiple comparisons using the multivariate *t* distribution and the *mvtnorm* package in *R*. As shown in Figure 4, simple slopes analyses indicated that at low levels of maternal preparation for bias, there was a positive association between maternal suppressive responses and teacher-reported child internalizing problems,  $t(18) = 3.22, p = .012$ . This association was not significant at mean levels of maternal preparation for bias,  $t(18) = 2.50, p = .050$ , or high levels of preparation for bias,  $t(18) = -0.79, p = .71$ .

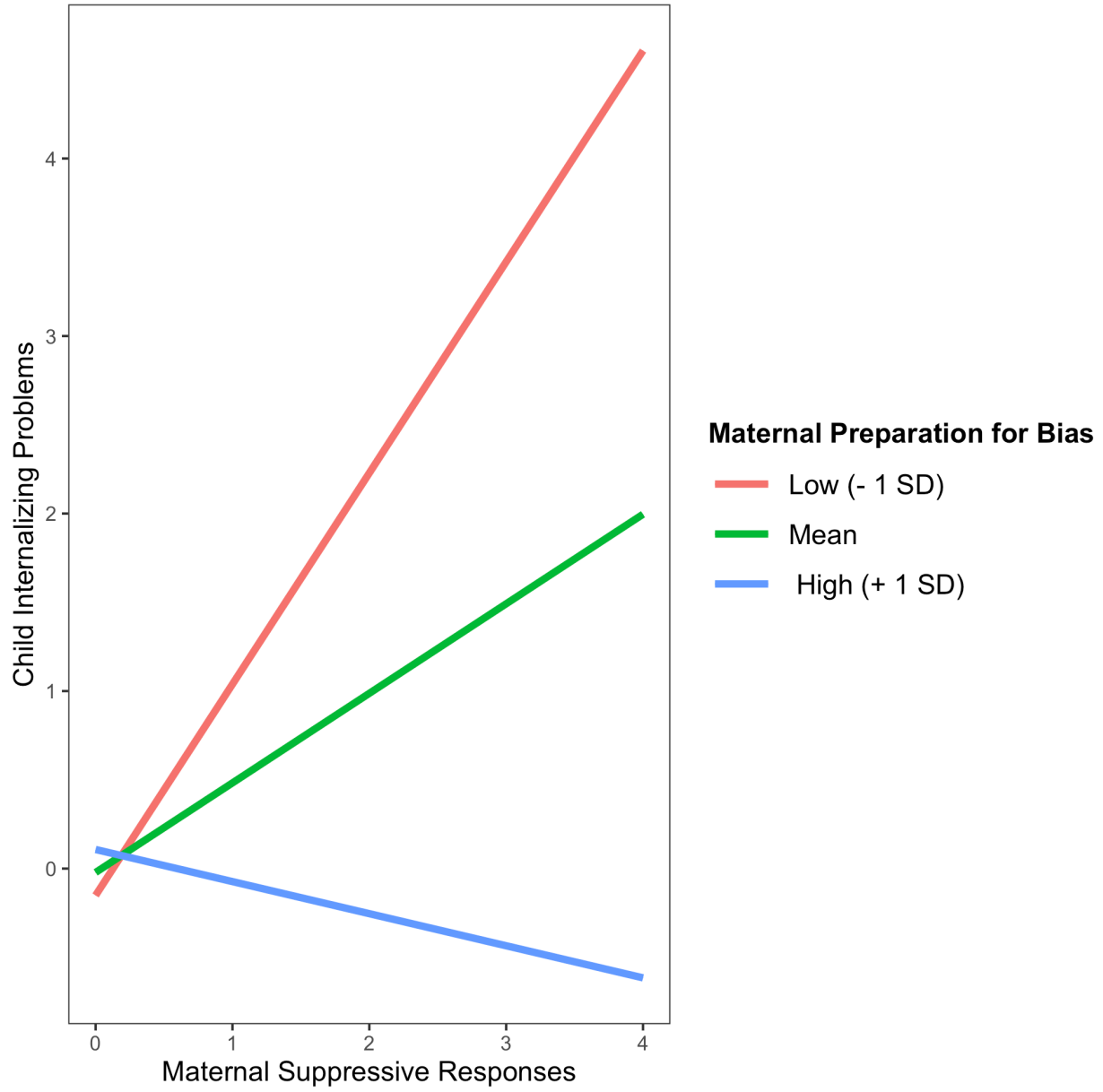
**Table 11.** Regression model predicting teacher-reported child behavior problems from maternal emotion socialization and racial socialization behaviors among Black/African American dyads.

	<i>Dependent variable:</i>	
	Child Internalizing Problems	Child Externalizing Problems
	(1)	(2)
M Emotion Dysregulation	0.26 (0.18)	0.28* (0.13)
Child Gender	-0.45 (0.39)	-0.79** (0.29)
M Preparation for Bias	0.13 (0.23)	0.22 (0.17)
M Cultural Socialization	0.12 (0.25)	0.23 (0.18)
M Suppressive Response (SR)	0.50** (0.20)	0.29* (0.15)
M Emotion/Problem-Focused Response (EPR)	0.35 (0.23)	-0.33* (0.17)
SR*Preparation for Bias	-0.70*** (0.24)	-0.43** (0.18)
EPR*Cultural Socialization	-0.76*** (0.23)	-0.40** (0.17)
Constant	0.20 (0.27)	0.35 (0.20)
Observations	27	27
R <sup>2</sup>	0.49	0.68
F Statistic (df = 8; 18)	2.16*	4.73***

*Note:* M= Maternal. Standard errors for standardized regression coefficients are noted in parentheses. \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .



**Figure 3.** Effect of maternal emotion/problem-focused emotion socialization on child internalizing problems per teacher-report as a function of maternal cultural socialization.

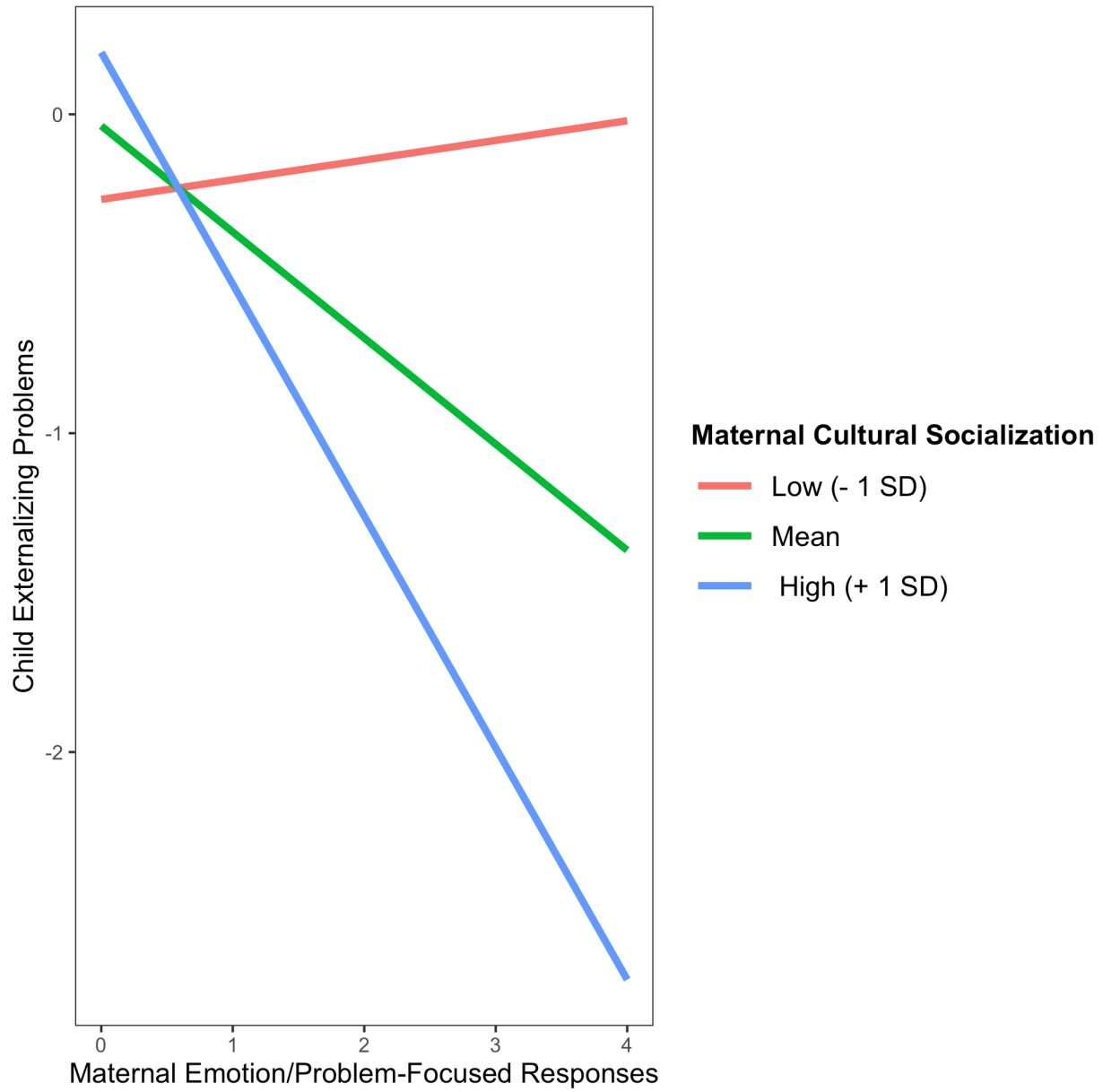


**Figure 4.** Effect of maternal suppressive emotion socialization on child internalizing problems per teacher-report as a function of maternal preparation for bias.

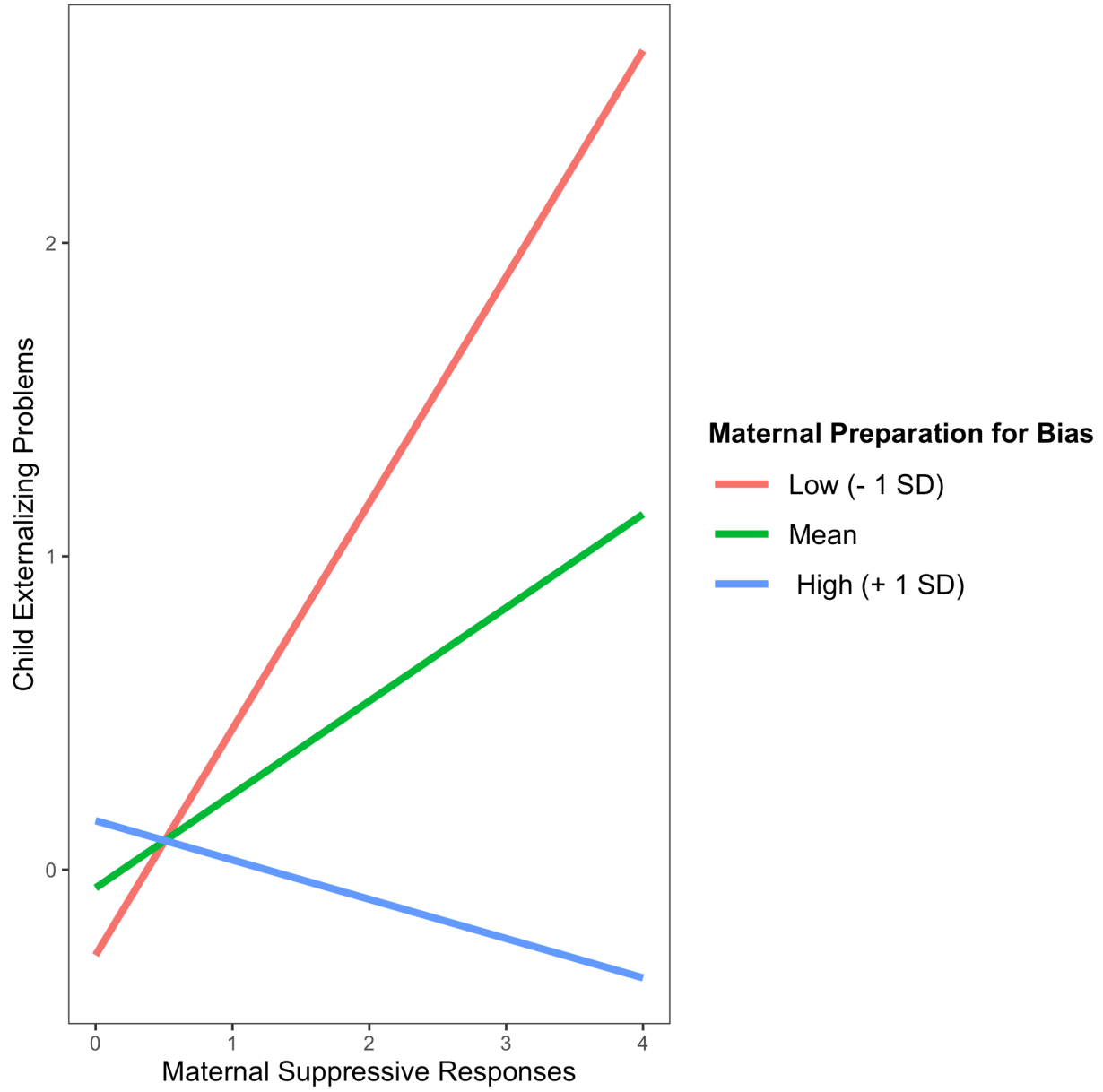
### *Child Externalizing Behaviors*

The main effects of maternal racial and emotion socialization were not significantly associated with teacher-reported child externalizing behaviors. However, the interaction term between maternal cultural socialization and emotion/problem-focused emotion socialization,  $t(18) = -2.34, p = .031$ , and the interaction term between maternal preparation for bias and suppressive emotion socialization responses,  $t(18) = -2.44, p = .026$ , were both significant. Simple slopes were tested for low (-1 standard deviation below the mean), mean, and high (+1 standard deviation above the mean) levels of racial socialization measures, corrected for multiple comparisons using the multivariate  $t$  distribution and the *mvtnorm* package in *R*. Simple slopes analyses indicated that at high levels of maternal cultural socialization behaviors, there was an inverse association between maternal emotion/problem-focused responses and teacher-reported child externalizing problems such that increased emotion socialization behaviors were associated with decreased externalizing problems,  $t(18) = -4.26, p = .001$  (See Figure 5). There was no association between maternal emotion/problem-focused reactions and children's externalizing problems at mean levels,  $t(18) = -1.98, p = .14$ , or low levels of cultural socialization  $t(18) = .21, p = .97$ . For suppressive responses, simple slopes analyses indicated that at low levels of maternal preparation for bias, there was a positive association between maternal suppressive responses and teacher-reported child externalizing problems,  $t(18) = 2.62, p = .041$  (Figure 6). This association was not significant at mean levels of maternal preparation for bias,  $t(18) = 2.00, p = .13$ , or high levels of preparation for bias,  $t(18) = -0.74, p = .74$ .





**Figure 5.** Effect of maternal emotion/problem-focused emotion socialization on child externalizing problems per teacher-report as a function of maternal cultural socialization.



**Figure 6.** Effect of maternal suppressive emotion socialization on child externalizing problems per teacher-report as a function of maternal preparation for bias.

## Discussion

The present study sought to examine the relationship between maternal emotion socialization behaviors and child emotion regulation among Black/African American and White mother-preschooler dyads. Results suggested a differential association between maternal emotion/problem-focused emotion socialization behaviors and child sadness regulation strategies: maternal emotion/problem-focused responses were associated with increased generation and recognition of effective sadness regulation strategies in children among Black/African American dyads but not among White dyads. Further, in a preliminary set of analyses, we examined whether the impact of emotion socialization behaviors among Black/African American dyads may be moderated by the extent to which mothers engage in racial socialization behaviors (i.e., cultural socialization and preparation for bias), guided by the integrative theoretical model of racial and emotion socialization for African American families (Dunbar et al., 2017). Results of this preliminary study suggested that maternal emotion socialization responses were associated with increased teacher-reported child behavior problems only at low levels of preparation for bias and cultural socialization.

While prior studies have conducted cross-cultural comparisons in regards to associations between maternal responses to children's negative emotions and child problem behaviors, the current study extended this line of research by examining the impact of maternal emotion socialization responses on child emotion regulation directly. In line with prior research (e.g., Nelson et al., 2012, Leerkes et al., 2020), Black/African American mothers in our study demonstrated higher levels of suppressive reactions to children's negative emotions than White mothers, but the two groups demonstrated similar levels of emotion/problem-focused responses. However, ethnoracial identity did not moderate the impact of maternal suppressive or

emotion/problem-focused responses on child frustration regulation. Rather, there was a main effect of suppressive responses such that maternal suppression of children's negative emotions was associated with a higher proportion of on-task behavior across children. This association makes conceptual sense, given that children who experience higher minimization and punitive responses in reaction to their negative emotions may be more practiced and adept at effectively suppressing unwanted emotions in the context of a goal-directed task. Contrary to hypotheses, maternal reactions to children's negative emotions were unrelated to children's negative emotion expression during the frustrating task. According to functional theories of emotion, emotions serve to prepare oneself and provide a motivational force resulting in a state of action readiness (e.g., Frijda et al., 1989). In the context of the present task, it may be that negative affect (i.e., anger and sadness) is functional rather than dysregulating in that it serves either behavior-regulatory or social-regulatory functions. For example, anger has been shown to provide a strong motivation to reach a blocked goal while working independently, while sadness serves a social-regulatory function in that it solicits external support and communicates a need for help while allowing one to move through loss (e.g., Barrett, 1998; Joaquim et al., 2018; Lewis et al., 2015). Thus, it may be that children were likely to express negative emotions during this task regardless of maternal predictors, given the functional nature of the emotions.

Together, these findings contribute additional evidence to the scant literature examining the association between parental responses to children's negative emotions and child outcomes in Black/African American families, which have mixed results. Of the two studies examining the impact of parental responding to children's negative emotions among Black/African American preschoolers using the Coping with Children's Negative Emotions Scale, suppressive responses were linked to decreased teacher-reported child aggressive behaviors, while the encouragement

of emotion expression was linked to decreased teacher-reported socioemotional competence (Smith & Walden, 2001; Nelson et al., 2013). Results from this study suggest that indices of frustration regulation, including sadness and anger expression and the ability to persist with goal-oriented behavior in the face of frustration, may not be the mechanism underlying this differential association.

On the other hand, maternal emotion/problem-focused responses were differentially associated with children's recognition of and ability to generate effective strategies for regulating sadness; among Black/African American families, increased maternal emotion/problem-focused emotion socialization behaviors were associated with children's increased knowledge regarding effective strategies to regulate sadness. This finding is consistent with that of Garner and Spears (2000), who found that among a group of predominantly African American preschoolers, children utilized more constructive and effective reactions in response to sadness and more non-constructive reactions in response to anger. Authors examined the role of a different set of parent emotion socialization behaviors— family emotion expression (i.e., expression and acceptance of both positive and negative emotions in the family context)— and found that maternal endorsement of family expressiveness was associated with lower levels of non-constructive regulation responses to negative emotions. Given that the knowledge and generation of sadness emotion regulation strategies were prompted by a vignette task in the current study, an important next step will be to examine how children's knowledge of strategies translates during an emotion-laden situation and its impact on prospective measures of child socioemotional functioning and competence.

This constellation of results aligns with a recent systematic review examining emotion socialization among African American families that concluded differences in African American

parent emotion socialization may reflect a nuanced interplay of cultural values, discrimination, and individual context (Labella, 2018). The author underscored the need to investigate mechanisms of differences in parental emotion-related behaviors. In response to this call, we explored the associations between maternal perceived discrimination, cultural socialization, preparation for bias, and maternal suppressive and emotion/problem-focused emotion socialization. Results indicated that maternal perceived discrimination was associated with preparation for bias, which aligns with prior literature showing that parents experiencing racial discrimination are likely to transmit racial socialization messages to their children in order to protect them from future injustices (McNeil Smith et al., 2016). Maternal perceived racial discrimination was also negatively associated with the distress reactions subscale, indicating that mothers who endorsed higher levels of experiencing racial discrimination were less likely to respond to children's negative emotions in ways that emphasize their own distress. Extant literature examining the impact of parents' racial discrimination experiences in developmental research has focused on its association with general parenting behaviors. Such studies have demonstrated mixed findings, with some results identifying a link between parents' racial discrimination experiences and harsh parenting (e.g., Anderson et al., 2015), while others show an increase in parental involvement (e.g., Rowley et al., 2010). Although it was beyond the scope of this preliminary study to examine how perceived discrimination may interact with racial and emotion socialization behaviors to impact child functioning, examining the association between parent and child perceived discrimination in relation to emotion-specific parenting behaviors above and beyond general parenting behaviors may be a promising endeavor.

We additionally explored the interactive effects of the two parent racial socialization processes, maternal cultural socialization and preparation for bias, on maternal suppressive and

emotion/problem-focused emotion socialization. This preliminary study was in direct extension of Dunbar and colleagues' (2022) recent study which found that the impact of suppressive responses among Black families was dependent on the extent to which parents endorsed preparing children for the experience of racial bias and discrimination. Specifically, we extended this study by incorporating teacher-report of child behaviors at early school-age and examining cultural socialization as an additional protective mechanism. Findings from the current study aligned very closely with that of Dunbar and colleagues, such that maternal suppressive emotion socialization responses were only associated with teacher-reported child internalizing and externalizing behavior problems in the context of low preparation for bias. A similar pattern of results for cultural socialization and emotion/problem-focused responses emerged, such that maternal emotion/problem-focused behaviors, which have traditionally been linked to adaptive outcomes in majority samples (e.g., McQuade & Breaux, 2017; Shortt et al., 2016), were only linked to reduced externalizing behaviors in the context of high levels of cultural socialization. For internalizing problems, maternal emotion/problem-focused reactions were linked with higher teacher-reported child internalizing problems at low levels of cultural socialization, pointing to the protective role of cultural socialization. These results are consistent with a prior latent profile analysis study suggesting maternal emotion socialization and racial socialization covary (Dunbar et al., 2015). In this study, high levels of cultural socialization paired with supportive or emotion/problem-focused parent responses were associated with lower levels of depression for young adults, and moderate levels of bias preparation paired with nonsupportive/suppressive responses were also associated with lower levels of depression. Additionally, prior examinations of cultural socialization have found that high cultural socialization is related to higher problem-solving skills, pre-academic skills, and lower behavior problems among young African American

children (e.g., Caughy et al., 2006; Caughy & Owen, 2015), pointing to the integral role of cultural socialization in socioemotional development. The moderating role of racial socialization may help contextualize extant mixed findings among examinations of emotion socialization and child functioning. Specifically, the current study results suggest that within-group variability regarding the impact of maternal emotion socialization behaviors on child behavior problems may be partly due to culturally specific mechanisms such as racial socialization processes. These findings support the integrative conceptual model of racial and emotion socialization for African American families proposed by Dunbar and colleagues (2017). However, given the very small sample size of 27 dyads whose data were used for this set of analyses, results should be cautiously interpreted given that we were underpowered to detect small and medium-sized effects. Associations examined within this study should be tested using larger sample sizes.

In addition to the small sample size of the preliminary analyses, the overall study had several additional key limitations. First, due to the cross-sectional nature of the project, no causal conclusions can be drawn from the results. While we proposed potential mechanisms for differential associations between maternal reactions to children's negative emotions and child psychosocial functioning among Black/African American families based on theoretical foundations and extant literature, a prospective study is necessary to establish true pathways and additionally account for bidirectional influences between parent and child. Another limitation is that we only focused on parental reactions to children's negative emotions, given its conceptual ties to salient racial socialization processes among non-White families. Maternal reactions to children's negative emotions were measured using the predominant self-report measure for this construct, the Coping with Children's Negative Emotions Scale (CCNES). The CCNES asks participants to rate various likelihoods of specific response examples associated with fixed



vignettes. However, the measure vignettes more heavily index parental responses to children's fear and sadness and less directly assess parental responses to children's anger. Parental responding to children's anger may be especially relevant for Black/African American families, given prior research showing that authority figures are more vigilant in monitoring Black children for misbehavior and consequently perceive their misbehavior as more threatening compared to that of White children (Gilliam et al., 2016; Halberstadt et al., 2018). The fixed nature of the CCNES also precludes participants from providing culturally-specific answers, and future studies may benefit from incorporating qualitative measures to gain further clarity on maternal reactions to children's emotions. Finally, while theoretical models of emotion socialization underscore the particular importance of parental reactions to children's negative emotions, other important processes fall under the umbrella of emotion socialization, including parent socialization of positive emotions, direct parental modeling of emotion regulation, general family expressiveness, and parent emotion meta-beliefs (Gottman et al., 1996; Morris et al., 2017). Future studies examining parent emotion socialization among diverse families should include these other features in order to disentangle their differential impacts on child emotion regulation development.

Despite these limitations, this study had several important strengths. First, it contributed to the limited literature examining maternal responses to children's negative emotions among Black/African American families by examining multiple behavioral indices of child emotion regulation, including expression of negative affect, the persistence of on-task behavior during a frustration eliciting task, and the knowledge and generation of effective strategies for regulating sadness and anger. For both majority-culture and BIPOC families, emotion socialization research has primarily utilized questionnaire measures, such as the Emotion Regulation Checklist, to

gauge child emotion regulation in a global and trait-like way (e.g., Breaux et al., 2022). The field of emotion regulation research has historically wrestled with inconsistent findings stemming partially from variability in construct operationalization (Cole et al., 2004). By incorporating multiple specific processes integral to the overall process of emotion regulation, this study provides additional clarity into the impact of maternal emotion socialization on child emotion regulation in specific and nuanced ways. Another strength of this study is that, to our knowledge, it is only the second to examine the impact of racial socialization and emotion socialization simultaneously among parent-child dyads. We extended the initial study (Dunbar et al., 2022) by incorporating teacher-report and examining the role of cultural socialization in promoting resiliency. It is promising that this preliminary study demonstrated a very similar pattern of results to that of Dunbar and colleagues, even among our small sample. Future researchers should continue to go beyond cross-cultural comparison and test culturally specific mechanisms to contextualize broad findings.

In sum, this study identified whether maternal reactions to children's negative emotions were differentially associated with child emotion regulation indices between Black/African American and White dyads. We also examined Black/African American mothers' cultural socialization and preparation for bias as culturally specific factors influencing the way in which maternal emotion socialization behaviors were related to teacher-reported child behavior problems. Findings underscore the necessity of further examining the mechanisms behind differential impacts of emotion socialization identified in cross-cultural research to gain a more comprehensive and nuanced understanding of parent emotion socialization and the developmental trajectory of child emotion regulation among diverse families.

## CHAPTER IV

### GENERAL DISCUSSION

Research examining the impact of parent emotion socialization behaviors has traditionally linked parental responses to children's negative emotions focusing on problem-solving, emotional validation, and encouragement of emotional expression to adaptive child functioning and assumed that minimizing or punitive responses are unilaterally maladaptive for children. However, this assumption has precluded consideration of children and families' unique sociocultural contexts, especially given that extant parent emotion socialization research has been primarily conducted with majority culture families. The current dissertation aimed to expand our understanding of parent emotion socialization behaviors and their impact on child functioning among BIPOC families in the United States by leveraging a systematic scoping review and an empirical evaluation.

Chapter II examined how the Coping with Children's Negative Emotions Scale, a predominant self-report measure of parent emotion socialization, has been adapted and used among minoritized families and synthesized study results. The small number of identified studies underscored the limited amount of extant research on this topic. Results indicated that parent "supportive" and "nonsupportive" responses to children's negative emotions may be differentially associated with child behavior and psychological problems among Black/African American, Latinx, and Asian/Asian American families compared to the direction of findings found in White families. Notably, there were mixed findings both within and across groups, pointing toward the need to test more proximal factors of parent emotion socialization and examine culturally specific moderators. To this end, Chapter III examined the impact of parent emotion socialization, as measured with the CCNES, on child emotion regulation in Black/African

American and White mother-child dyads. Results showed that among Black/African American families, increased maternal emotion/problem-focused emotion socialization behaviors were associated with children's increased knowledge of sadness emotion regulation strategies, but this association was not significant among White non-Hispanic families. Additionally, using a small subsample of Black/African American participants, we conducted a preliminary examination of the role of culturally specific moderators, with results suggesting that associations between parent emotion socialization and teacher-reported child behavior problems were dependent on levels of maternal racial socialization behaviors.

One of the primary goals of the review (Chapter II) was to map the current literature on this topic to identify potential research gaps and provide practical recommendations for future studies using the CCNES. Thus, an active effort was made while conducting our empirical evaluation (Chapter III) to enact and model the recommendations suggested in the review. For instance, results of the scoping review indicated that very few studies have examined measurement equivalence of the CCNES across groups, suggesting caution in assuming construct equivalence. Even though the sample size in our empirical study was not sufficiently large to conduct statistical tests of measurement invariance, we conducted thorough preliminary analyses of the CCNES and reported findings at the individual subscale level rather than just the composite level. We additionally conducted preliminary analyses for both Black/African American families and White participants, given that our analyses included cross-cultural comparisons, to inform composite/subscale selection for subsequent models and hypothesis testing. Results of our preliminary analyses indicated that while internal consistencies were comparable across most subscales, there was a difference in internal consistency for the Distress Reactions subscale such that it was markedly lower for Black/African American mothers

(Cronbach's  $\alpha = .65$ ) compared to White non-Hispanic mothers (Cronbach's  $\alpha = .78$ ). This finding aligned with the aggregation of internal consistency data from studies included in the scoping review, indicating that the distress reactions subscale had the lowest mean Cronbach's alpha (.58) of the six CCNES subscales. Further, results of the scoping review showed that the most common adaptation in scoring the CCNES was deviating from the traditional "nonsupportive" composite (consisting of the minimizing, punitive reactions, and distress reactions subscales) by removing the distress reactions subscale. The first instance of this adaptation among BIPOC families was by Smith and Walden (2001), due to preliminary analyses indicating that the distress reactions subscale achieved a low estimate of internal consistency and was not significantly correlated with the other five subscales. Beyond psychometric considerations, some studies included in the scoping review did not include the distress reactions subscale in analyses, given that their specific study hypotheses were related to "suppressive" parent emotion socialization responses such as punitive and minimization reactions and not related to distress reactions (Dunbar et al., 2015; Dunbar et al., 2022). While studies have traditionally grouped the three subscales of minimization, punitive reactions, and distress reactions, results of the review suggest that using only traditional composites scores may mask a more nuanced picture among non-majority families, especially in the context of behaviors that have traditionally been labeled as nonsupportive. Therefore, in our empirical study, we elected to examine the punitive and minimization subscales and the expressive encouragement, problem-focused, and emotion-focused subscales, based on both psychometric examination and prior theory.

Regarding the labels used to describe parent emotion socialization behaviors, results of Chapter II indicated mixed findings regarding the associations between parents' "supportive" and

"nonsupportive" emotion socialization behaviors on child functioning. Therefore, in our empirical study, we chose to use descriptive language that characterized the set of emotion socialization behaviors instead of using the value-laden terms "supportive" and "nonsupportive" to describe maternal reactions. We used the label "suppressive responses" for the composite consisting of the punitive and minimization subscales and "emotion/problem-focused responses" for the composite consisting of the expressive encouragement, emotion-focused, and problem-focused reaction subscales. One of the findings in our empirical study was that suppressive maternal responses were associated with a higher proportion of children's on-task behaviors during a frustration eliciting task across all participants, underscoring that these maternal responses are not inherently unilaterally unsupportive or maladaptive. In practice, using descriptive rather than evaluative labels within this work would likely benefit all researchers regardless of the demographic characteristics of participants. Recent studies conducted with majority White samples have begun disentangling the developmental nuances underlying the impact of maternal emotion socialization behaviors, with titles such as "*Parent emotion socialization and children's socioemotional adjustment: when is supportiveness no longer supportive?*" (Mirabile et al., 2018). This study showed that emotion socialization responses that were "supportive" for younger children were actually unsupportive (i.e., linked to poorer socioemotional competence) in older children. Given that parent emotion socialization is a dynamic process, using descriptive characterizations for parent emotion socialization behaviors will encourage researchers to form and test hypotheses that consider developmental and sociocultural contexts.

Finally, the results of the scoping review showed a gap in the literature in regards to testing mechanisms by which parent emotion socialization behaviors impact child

socioemotional outcomes. The empirical study moved to begin filling this gap by examining the role of maternal reactions to children's negative emotions on multiple measures related to child emotion regulation. Results showed that while Black/African American mothers endorsed higher levels of suppressive responses than White mothers, there were no differential associations in regards to the impact of maternal suppressive responses on child variables depending on ethnoracial group. On the other hand, maternal emotion/problem-focused responses were associated with children's increased knowledge regarding effective strategies to regulate sadness among Black/African American dyads but not White dyads. These findings underscore the importance of examining the various and multiple components integral to children's emotion regulation to increase precision into the impact of maternal emotion socialization on child emotion regulation and subsequent socioemotional outcomes. In a preliminary examination, the empirical study also tested maternal cultural socialization and preparation for bias as culturally specific factors that moderate the impact of maternal emotion socialization. This examination was in direct extension of Dunbar and colleagues' recent study (2022), which identified that the extent to which parents prepared their kindergarten children for the experience of bias moderated the impact of suppressive emotion socialization behaviors on parent-reported child behavior problems within Black American families. Our results using teacher-reported child behavior problems aligned with these findings and further suggested that parent cultural socialization also moderates the impact of parent emotion socialization behaviors on child behavior problems. Overall, these results support the integrative conceptual model of parental racial/ethnic and emotion socialization among African American families (Dunbar et al., 2017) and emphasize the importance of considering normative developmental processes for minoritized youth that occur

alongside and overlap with parent emotion socialization processes and emotion regulation development.

Given this set of results, three specific future directions will extend the findings of this dissertation. First, given that only three studies conducted measurement invariance analyses as a part of their studies, there is a need to conduct a thorough psychometric evaluation of the Coping with Children's Negative Emotions Scale across minoritized groups in the United States.

Although establishing measurement invariance statistically is an important step, I believe that qualitative methods that elucidate the subjective interpretation of items are critical in understanding any poor psychometric properties and facilitate the development of an invariant measure or appropriate adaptations for cultural groups. Beyond using any singular measure, mixed-methods studies incorporating focus groups or open-ended questions may help elucidate culturally specific values or processes that are attached to emotion socialization responses (e.g., if the situation invokes defiance to parental authority, if the situation involves negative emotion expression in front of an authority figure). Using a mixed-methods approach may also facilitate the generation of culturally-specific responses precluded in extant measures. While behavioral/observation tasks in a lab setting are often championed as the gold standard in developmental research, qualitative methods may be more facilitative of gathering the full range of emotion socialization responses when compared to the context of families participating in a laboratory observation within an academic institution (Roberts, 2020).

Next, it is important to continue examining other parent emotion socialization mechanisms that impact the development of child emotion regulation and adjustment. This dissertation examined maternal reactions to children's negative emotions as a specific emotion socialization practice. However, theoretical models posit that there are multiple mechanisms by



which a family influences children's emotion regulation development. For example, the tripartite model by Morris et al. (2007) asserts that in addition to emotion socialization parenting practices, child emotion regulation development is also impacted by observation (e.g., parents' direct modeling of emotion expression and emotion regulation) and the emotional climate of the family (e.g., parents' general parenting style, the relationship between caregivers, family emotional expressivity). Each of these mechanisms is also inherently embedded within a sociocultural context, and it will be critical to delineate their unique and additive impacts on child emotion regulation development within BIPOC families.

Finally, although the scoping review results indicated largely mixed findings regarding the impact of parent emotion socialization behaviors both within and between ethnoracial groups, results of a couple of included studies (Dunbar et al., 2015; Dunbar et al., 2022) and results of the empirical study within this dissertation suggest that culturally specific factors may moderate the effect of parent emotion socialization. It is critical for future researchers to continue examining the role of culturally specific factors on parent emotion socialization among African American families and begin to examine these cultural mechanisms among other marginalized families in the United States. In line with tenets of conducting sensitive ethnic-minority research (Sue & Dhindsa, 2006), researchers should carefully examine both shared experiences across minoritized families (e.g., racial socialization, acculturation, and experiences of discrimination), as well as consider culturally specific values and the unique sociopolitical and sociocultural context of each group. By incorporating these factors, researchers will be able to go beyond establishing gross differences cross-culturally, towards an intersectional conceptualization of child emotional development of BIPOC youth that integrates the dynamic interactions between emotion socialization and cultural and developmental context.

## APPENDIX A

### COPING WITH CHILDREN'S NEGATIVE EMOTIONS SCALE

#### COPING WITH CHILDREN'S NEGATIVE EMOTIONS SCALE (CCNES)

Purpose: To measure the degree to which parents perceive themselves as reactive to young children's (preschool through early elementary school) negative affect in distressful situations. Six subscales are derived that reflect the specific types of coping response parents tend to use in these situations.

#### SUBSCALES

1. Distress Reactions (DR). These items reflect the degree to which parents experience distress when children express negative affect.

Scoring: Mean of: 1B, 2A\*, 3A, 4D, 5E, 6C, 7C\*, 8C\*, 9B, 10A\*, 11B, 12D.

\* = REVERSED SCORING

2. Punitive Reactions (PR). These items reflect the degree to which parents respond with punitive reactions that decrease their exposure or need to deal with the negative emotions of their children.

Scoring: Mean of: 1A, 2F, 3F, 4A, 5D, 6D, 7E, 8E, 9E, 10B, 11C, 12E.

3. Expressive Encouragement (EE). These items reflect the degree to which parents encourage children to express negative affect or the degree to which they validate child's negative emotional states (i.e., "it's ok to feel sad.")

Scoring: Mean of: 1E, 2E, 3E, 4B, 5F, 6E, 7F, 8A, 9A, 10C, 11F, 12B.

4. Emotion-Focused Reactions (EFR). These items reflect the degree to which parents respond with strategies that are designed to help the child feel better (i.e., oriented towards affecting the child's negative feelings).

Scoring: Mean of: 1F, 2B, 3D, 4E, 5A, 6A, 7B, 8F, 9F, 10D, 11E, 12C.

5. Problem-Focused Reactions (PFR). These items reflect the degree to which parents help the child solve the problem that caused the child's distress (i.e., oriented towards helping the child solve his/her problem or coping with a stressor).

Scoring: Mean of: 1C, 2D, 3C, 4F, 5B, 6F, 7A, 8B, 9D, 10E, 11D, 12A.

6. Minimization Reactions (MR). These items reflect the degree to which parents minimize the seriousness of the situation or devalue the child's problem or distressful reaction.

Scoring: Mean of: 1D, 2C, 3B, 4C, 5C, 6B, 7D, 8D, 9C, 10F, 11A, 12F.

**DIRECTIONS:** In 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 a number from 1-7.

Response Scale:

1	2	3	4	5	6	7
Very Unlikely			Medium			Very Likely

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 okay to cry	1	2	3	4	5	6	7
f) tell my child to stop crying or he/she won't be allowed to ride his/her bike anytime soon	1	2	3	4	5	6	7

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

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 okay 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
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4. 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 a 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 (e.g., relaxing so it won't hurt or taking deep breaths)	1	2	3	4	5	6	7

5. 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 isn't scary	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

6. 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
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7. 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) help my child think of things that he/she could do to get ready for his/her turn (e.g., do some warm-ups and not look at the audience)	1	2	3	4	5	6	7
b) suggest that my child think about something relaxing so that his/her nervousness will go away	1	2	3	4	5	6	7
c) remain calm and not get nervous myself	1	2	3	4	5	6	7
d) tell my child that he/she is being a baby about it	1	2	3	4	5	6	7
e) tell my child that if he/she doesn't calm down, we'll have to leave and go home right away	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

8. If my child receives an undesirable birthday gift from a friend and looks obviously disappointed, even annoyed, after opening it in the presence of the friend, I would:

a) encourage my child to express his/her disappointed feelings	1	2	3	4	5	6	7
b) tell my child that the present can be exchanged for something the child wants	1	2	3	4	5	6	7
c) <u>NOT</u> be annoyed with my child for being rude	1	2	3	4	5	6	7
d) tell my child that he/she is over reacting	1	2	3	4	5	6	7
e) scold my child for being insensitive to the friend's feelings	1	2	3	4	5	6	7
f) try to get my child to feel better by doing something fun	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 he/she is over-reacting	1	2	3	4	5	6	7
d) help my child think of something to do so that he/she 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 he/she won't be allowed to watch any more 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
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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) <u>NOT</u> get upset myself	1	2	3	4	5	6	7
b) tell my child that if he/she starts crying then we'll have to go home right away	1	2	3	4	5	6	7
c) tell my child it's okay to cry when he/she feels bad	1	2	3	4	5	6	7
d) comfort my child and try to get him/her to think about something happy	1	2	3	4	5	6	7
e) help my child think of something else to do	1	2	3	4	5	6	7
f) tell my child that he/she will feel better soon	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 that would make meeting my friends less scary (e.g., 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 okay 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 with our 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 he/she must stay in the living room and visit with our friends	1	2	3	4	5	6	7
f) tell my child that he/she is being a baby	1	2	3	4	5	6	7

## APPENDIX B

### CCNES SCOPING REVIEW DATA EXTRACTION FORM

Code 999= Not Reported or Available

#### **Publication Information**

##### Study Identification Features

1. Title:
2. Authors:
3. Year of publication:
4. Location in which study was conducted (e.g. Pacific Northwest, USA):
5. Primary aim(s) of study:

#### **Sample Characteristics**

6. Total sample size:
7. Participant type 1—parent-child dyads, 2—parent-report only, 3—retrospective study:

##### Caregiver, Child, and Family Demographics:

8. Ethnicity (% ethnic minority)\*:
  - a. Parents:
  - b. Children:
9. Race (% non-White)\*:
  - a. Parents:
  - b. Children:

*\*as a reminder, to be included in this review, studies samples must either consist predominantly (>70%) of non-White families, or feature subsamples such that the*

*ethnoracial minority group had to make up greater than 10% of the sample, and emotion socialization behaviors are examined between groups.*

10. Sex (% female):

- a. Parents:
- b. Children:

11. Mean age in years:

- a. Parents:
- b. Children:

12. Average caregiver education:

13. Family/household income (M, SD):

AND/OR

Predominately ( $\geq 50\%$ ) low income/SES 0—no, 1—yes, 999—unknown

Low income/SES was based on the following criteria:

- a majority of caregivers had less than or equal to a high-school degree
- lower-income families were oversampled
- the majority of families were on public assistance
- the average family income was below the national median

([https://alfred.stlouisfed.org/series?seid=MEHOINUSA672N&utm\\_source=series\\_page&utm\\_medium=related\\_content&utm\\_term=related\\_resources&utm\\_campaign=alfred](https://alfred.stlouisfed.org/series?seid=MEHOINUSA672N&utm_source=series_page&utm_medium=related_content&utm_term=related_resources&utm_campaign=alfred))

## CCNES

### Scoring

14. What subscales of the CCNES were used in analyses (DR, PR, EE, EFR, PFR, MR)?



15. What composite scores were used in analyses?

0—none, 1—supportive (EE, EFR, PFR), 2—nonsupportive (DR, PR, MR), 3—other  
(describe)

### Validity

16. How was internal consistency (e.g. Cronbach's alphas) reported? 999—not reported, 1—  
Cronbach's alpha, 2—other (describe):

- a. Was internal consistency provided for subscales (1) or composites (2)?
- b. Record estimated reliabilities:

17. If cross-cultural analyses, were alphas reported for each group? 0—no, 1—yes

18. Record correlation values between composite scores:

19. Record correlation values between subscales:

20. If cross-cultural analyses, were correlation values reported for each group?

0—no, 1—yes

21. Was measurement invariance measured? 0—no, 1—yes

- a. (If yes) Describe methods:
- b. (If yes) Describe findings:
- c. (If yes) Was the CCNES adjusted or adapted based on findings? 0—no, 1—yes

### Adaptation

22. Was the CCNES adapted from its original form? 0—no, 1—yes

- a. (If yes) Describe how the measure was adapted (e.g. items deleted, new vignettes added, extant responses options changed):
- b. (If yes) Describe rationale provided for adaptation (999—none provided):

### **Analyses and Findings**

23. Was the CCNES a predictor (1), outcome (2), or other (e.g. moderator, mediator; 3) in analyses?

24. Were analyses conducted cross-culturally? 0—no, 1—yes

25. Is there another method of measuring parent emotion socialization in addition to the CCNES? 0—no, 1—yes

a. (If applicable) Please select all methods used to measure:

1-self-report (parent); 2-self-report (child); 3-clinical interview; 4-physiological measure; 5- dyadic interaction task; 6- standardized lab task; 7- other (describe)

#### Parent Related Variables

26. Describe parent-related variables and characteristics measured and used in analyses as related to the CCNES (e.g. none, depression, anxiety, trauma, substance use, emotion regulation):

a. (If applicable) Please select all methods used to measure:

1-self-report (parent); 2-self-report (child); 3-clinical interview; 4-physiological measure; 5- dyadic interaction task; 6- standardized lab task; 7- other (describe)

b. (If applicable) Please describe findings in association with the CCNES:

#### Parenting Variables

27. Describe parenting variables measured and used in analyses as related to the CCNES (e.g. none, psychological control, warmth, hostility, sensitivity, expressed affect, family environment):

a. (If applicable) Please select all methods used to measure:

1-self-report (parent); 2-self-report (child); 3-clinical interview; 4-physiological measure; 5- dyadic interaction task; 6- standardized lab task; 7- other (describe)

- b. (If applicable) Please describe findings in association with the CCNES:

Child Related Variables

28. Describe child-related variables measured and used in analyses as related to the CCNES (e.g. temperament, emotion regulation, executive functioning, internalizing symptoms, externalizing symptoms, social competence, school readiness):

- a. (If applicable) Please select all methods used to measure:

1-self-report (parent); 2-self-report (child); 3-other caregiver/teacher report; 4-physiological measure; 5- dyadic interaction task; 6- standardized lab task; 7-clinical interview; 8- other (describe)

- b. (If applicable) Please describe findings in association with the CCNES:

Demographic Variables

29. Describe demographic variables measured and used in analyses as related to the CCNES (e.g. none, race, ethnicity, income):

- a. (If applicable) Please select all methods used to measure:

1-self-report (parent); 2-self-report (child); 3-other caregiver/teacher report; 4-physiological measure; 5- dyadic interaction task; 6- standardized lab task; 7-clinical interview; 8- other (describe)

- b. (If applicable) Please describe findings in association with the CCNES:

Cultural Variables

30. Describe culture-related variables measured and used in analyses as related to the CCNES (e.g. none, cultural socialization, preparation for bias, promotion of mistrust, perceived discrimination, acculturation):

- a. (If applicable) Please select all methods used to measure:  
1-self-report (parent); 2-self-report (child); 3-other caregiver/teacher report; 4-physiological measure; 5- dyadic interaction task; 6- standardized lab task; 7-clinical interview; 8- other (describe)
- b. (If applicable) Please describe findings in association with the CCNES:

## **Discussion**

- 31. Presence of culture-related explanation for findings: 0—no, 1—yes
  - a. Identification of a named theory or model relevant for ethnoracial minority families in contextualizing findings (e.g. Boykin’s triple quandary theory of racial socialization, family stress model, minority stress model): 0—no, 1— yes
    - i. (If yes) Please label:
    - b. (If yes) Please describe:
- 32. Inclusion of discussion of methodological limitations specific to the CCNES: 0—no, 1—yes
  - a. (If yes) Please describe:
- 33. Inclusion of implications of findings as related to BIPOC families (e.g., clinical, research implications): 0—no, 1—yes
  - a. (If yes) Please describe:
- 34. Suggestions for future discussion, as related to studying parent emotion socialization among BIPOC families in the United States (e.g. none, inclusion of culturally specific moderators, methodological advances, inclusion of extended caregiving network):

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