

The Pennsylvania State University

The Graduate School

**A PERSON-CENTERED ANALYSIS OF PARENT SOCIALIZATION  
OF EMOTION AT AGES TWO AND FIVE**

A Thesis in

Psychology

by

Nora A. Tucker

© 2023 Nora A. Tucker

Submitted in Partial Fulfillment  
of the Requirements  
for the Degree of

Master of Science

May 2023

The thesis of Nora Tucker was reviewed and approved by the following:

Kristin Buss  
Psychology Department Head  
Tracy Winfree and Ted H. McCourtney Professor in Children, Work, and  
Families and Professor of Psychology & Human Development and Family  
Studies  
Thesis Advisor

Pamela Cole  
Liberal Arts Professor of Psychology and Human Development and Family  
Studies

Rina Eiden  
Professor of Psychology; Consortium for Combating Substance Abuse. Associate  
Editor of Child Development.

## ABSTRACT

Parent socialization of emotion (PSE) has important implications for children's socioemotional development. A large body of research has shown robust associations between PSE and children's outcomes. This research has primarily studied PSE dichotomously and classified all behaviors as either supportive or unsupportive. However, more recent research has critiqued this approach for failing to capture the nuances of PSE behaviors and oversimplifying the construct of PSE. In response to these criticisms several studies have employed a person-centered approach to generate profiles of PSE. However, these studies have failed to identify a consistent set of profiles. We believe this may be due the varying and wide age ranges used in these studies. Thus, the current study utilizes a person-centered approach to generate profiles of PSE at two ages (2 and 5 years old) and examines descriptive differences between profiles identified at age 2 and 5. Finally, we validate the profiles identified by examining associations with known correlates of PSE. At age 2 we identified 3 profiles of PSE: an emotions and problem focused profile, a diverse strategy use profile, and a solutions focused profile. At age 5 we identified 2 profiles of PSE: an emotions and problem focused profile, and a diverse strategy use profile. The results of this study suggest that employing a person-centered approach to study PSE within ages may provide a more nuanced and generalizable measure of PSE which will allow researchers to more accurately assess associations between PSE and children's outcomes.

## TABLE OF CONTENTS

LIST OF FIGURES .....	v
LIST OF TABLES .....	vi
ACKNOWLEDGMENTS .....	vii
Introduction.....	2
The importance of Parent Socialization of Emotion for Children’s Outcomes.....	2
Dichotomous Approach to Studying PSE: Limitation and Alternatives .....	5
The Current Study .....	11
Method .....	14
Participants .....	14
Procedure .....	15
Measures .....	15
Emotion Socialization .....	15
Temperamental Negative Affect .....	17
Parenting Style .....	18
Results.....	18
Preliminary Analyses .....	18
Profiles of Emotion Socialization at Age 2 .....	20
Profiles of Emotion Socialization at Age 5 .....	23
Discussion.....	24
Limitations and Future Directions .....	32
References.....	35
Appendix: Figures and Tables.....	43

## LIST OF FIGURES

Figure <b>1-1</b> : Age 2 LPA Profiles of PSE-3 Profile Solution .....	50
Figure <b>2-1</b> : Age 2 LPA Profiles of PSE-4 Profile Solution. ....	51
Figure <b>3-1</b> : Age 5 LPA Profiles of PSE.....	52

## LIST OF TABLES

Table 1-1: Descriptives for Study Variables Age 2. ....	44
Table 2-1: Descriptives for Study Variables Age 2. ....	45
Table 3-1: Correlations for Study Variables Age 2. ....	46
Table 4-1: Correlations for Study Variables Age 5. ....	47
Table 5-1: Fit Indices for Latent Profile Analyses for Parent Socialization of Emotion at 2 years. ....	47
Table 5-1: Fit Indices for Latent Profile Analyses for Parent Socialization of Emotion at 2 years. ....	47
Table 6-1: Means, Standard Deviations, and One-Way Analyses of Variance in Parenting Style Between Age 2 PSE profiles-3 class solution. ....	48
Table 7-1: Means, Standard Deviations, and One-Way Analyses of Variance in Parenting Style Between Age 2 PSE profiles-4 class solution. ....	48
Table 8-1: Fit Indices for Latent Profile Analyses for Parent Socialization of Emotion at 5 years ....	49
Table 9-1: Means, Standard Deviations, and Independent Samples T-Test of Parenting Style Between Age 5 PSE profiles-2 class solution ....	49

### **ACKNOWLEDGMENTS**

I would like to thank my advisors, Drs. Kristin Buss and Pamela Cole, for their support and encouragement. I also want to thank the families who participated in this study and the research team who made this project possible. I would also like to thank my committee members for the time, feedback, and consideration. Finally, I would like to thank my partner, friends, cats, and family for their unwavering support.

The research reported here was supported by the National Institute of Mental Health award number R01075750. The content is solely the responsibility of the author and does not necessarily represent the official views of the National Institute of Mental Health.

## Introduction

Across early childhood, there is rapid development of emotional competence, emotion understanding, and an ability to regulate emotions (Perry & Calkins, 2018). The processes that account for this development are multifaceted and include biological and neural maturation, cognitive development, and environmental factors including cultural and parental factors. Parents are the main socializers in children's early life, and parenting has important implications for children's emotional development (Morris et al., 2017). Parent socialization of emotion (PSE) is the process through which parents communicate their values around emotional behaviors, teach children how to understand and control their emotions, and respond to the emotions of others (Eisenberg et al., 1998). PSE is not a singular process and is often captured by a variety of parental behaviors such as discussing emotions with children, modeling emotional displays, and reinforcing emotional behaviors. These aspects of PSE have been shown to predict children's emotional development and developmental outcomes (Cunningham et al., 2009).

PSE refers to how parents react and respond to children's emotions, emotional reactions, and emotional contexts. PSE behaviors include how parents support, guide, and teach their children, directly and indirectly, to identify, regulate, and express emotions across contexts. (Eisenberg et al., 1998). Thus, with the focus on emotion expression and emotional contexts, PSE is a distinct construct from other aspects of parenting such as sensitivity, and warmth or disciplinary style (Gottman et al., 1996). PSE has been operationalized in a variety of ways such as modeling emotions (Denham, et al., 1997), emotion coaching/teaching (Gottman et al., 1996; Lunkenheimer et al., 2007), and parents' reactions and responses to children's negative emotional displays (Spinrad et al., 2007). This thesis focuses specifically on parents' responses to their children's emotional displays, as parent's responses to children's emotions.



## **The Importance of Parent Socialization of Emotion for Children's Outcomes**

Eisenberg and colleagues (1998) outlined a heuristic model of PSE. This model summarized the current state of the literature on PSE and provided a framework for future research. When this model was generated, researchers were beginning to understand the complexities of the relation between PSE and children's outcomes: the authors outline and summarize how various child characteristics (e.g., age, sex, temperament, reactions to discipline) along with parent characteristics (e.g., values, childrearing philosophy, emotion regulation, emotionality) are likely to impact the PSE behaviors that parents use. For example, the review discusses how a child's temperamental emotionality and the parent's regulatory capacity are factors that are likely to impact a parent's PSE. They also highlight other factors that are likely to contribute to how parents socialize emotions such as culture and the context in which PSE behaviors happen.

This model explicitly dichotomized PSE stating, "socializers can react in supportive or nonsupportive ways to a child's negative emotion" (Eisenberg et al., 1998, p. 245). Supportive reactions are those which help the child maintain an acceptable level of arousal where they can express their emotions but do not become over-aroused. Parents do this by comforting the child or helping the child manage the emotion or stressor. In contrast, unsupportive reactions include minimization of the child's emotions, punitive reactions, or parents own distress responses; all of which can lead to negative emotion and over-arousal for the child (Eisenberg et al., 1998). Along with in the moment arousal, researchers understood supportive reactions to child negative emotions over time to be adaptive and positively associated with the development of emotional and social competence. In contrast, unsupportive reactions to child negative emotions over time were hypothesized to be maladaptive and associated with negative socioemotional outcomes and emotion dysregulation.

Empirical data largely aligns with the theory (Eisenberg et al., 1998) and hypothesis that supportive behaviors promote adaptive socioemotional development, while unsupportive behaviors promote maladaptive outcomes. For example, increased use of supportive PSE is associated with better emotion regulation and higher levels of unsupportive PSE is associated with poorer emotion regulation and higher levels of emotion dysregulation (Blair et al., 2014; Jin et al., 2017; Shaffer et al., 2012). In addition, greater use of supportive PSE is associated with increased baseline and stronger task-based respiratory sinus arrhythmia (RSA), a physiological correlate of self-regulation (Perry et al., 2013; Perry et al., 2016). High levels of baseline RSA are linked with an increased capacity for regulation, and stronger task-based RSA reflects greater sympathetic response and mobilization of physiological resources (Beauchaine & Thayer, 2015; Porges, 2007) Thus, more supportive PSE is linked with better physiological regulation.

Moreover, higher levels of supportive PSE are associated with better emotion regulation which in turn is associated with fewer internalizing and externalizing symptoms, and higher levels of unsupportive PSE are associated with poorer emotion regulation which in turn is associated with higher levels of internalizing symptoms (Jin et al., 2017). Furthermore, supportive PSE has indirect associations with greater social competence, less separation distress, and fewer externalizing symptoms through increased effortful control (Spinrad et al., 2007) Additionally, supportive PSE, has indirect associations with stronger social competence, fewer school problems, less risk-taking behavior, and fewer internalizing symptoms through emotion regulation (Perry et al., 2020). Finally, unsupportive PSE has indirect associations with greater risk-taking behavior, increased internalizing symptoms, poorer social competence, and more school problems through emotion regulation (Perry et al., 2020).

In addition to emotion-regulation, PSE is associated with children's behavioral outcomes such as social competence (Jones et al., 2002). One study found punitive and minimization responses to children's negative emotions to be associated with lower social competence (Jones et al., 2002), and another found parental distress in response to children's negative emotions to be associated with lower social competence (Fabes et al., 2001). In contrast, supportive PSE is associated with better social competence (Blair et al., 2014; Miller-Slough et al., 2017). Furthermore, supportive emotion socialization has been linked with less aggressive behavior (Lunkenheimer, 2020) and fewer behavior problems over time (Denham et al., 2000, Yi et al., 2016) while unsupportive PSE is associated with more aggressive behavior.

There are important developmental considerations in the study of PSE. Early childhood, and the time before children start formal schooling (i.e., kindergarten) is a critical period for children's emotional development (Cole & Hollenstein, 2018). For example, emotion regulation at the start of formal schooling is a marker for academic success (Blair & Raver, 2015; Denham et al., 2014). During this developmental period children make dramatic increases in their emotion regulation abilities (Blair, 2016; Cole & Jacobs, 2018; Kochanska et al., 2001; Perry & Calkins 2018). Emotion regulation strategies and effectiveness change over childhood (Cole & Hollenstein, 2018). As they age, children are slower to express anger in response to anger inducing stimuli, and children become increasingly able to distract themselves away from anger inducing stimuli (Cole et al., 2011). In addition, older children employ different (Mangelsdorf et al., 1995) and a greater number of strategies (Hodgins & Lander, 1997) to regulate their emotions. As children get older, their attentional control is more strongly associated with their expressed regulation, suggesting that older children are better able to avert attention from distressing stimuli (Morasch & Bell, 2011).

As children's emotion regulation develops from infancy to early childhood, they transition from relying heavily on their parents to aid in their regulation to regulating on their own (Calkins, 1994; Eisenberg & Morris, 2002; Eisenberg & Sulik, 2012; Kopp, 1982; Kopp, 1989; Posner & Rothbart, 2000; Sroufe, 1996; Thompson, 1994). In addition, emotion regulation is viewed as a social process that both influences and is influenced by social relationships (Cole et al., 2004; Parke, 1994; Walden & Smith, 1997). Thus, the most adaptive patterns of emotion socialization are not the same for a 3-year-old and a 5-year-old, for example. Additionally, parent's emotion socialization goals and attitudes change as children get older (Settler & Katz, 2014).

### **Dichotomous Approach to Studying PSE: Limitation and Alternatives**

Parent's responses to their children's negative emotions are often measured with the Coping with Children's Negative Emotions Scale (CCNES; Fabes, et al., 1990). There are other measures of PSE and responses to children's emotions, however this measure is the most frequently used and was used in the current study. The CCNES assesses parents' reactions to their children's negative emotions in a variety of situations (e.g., child becomes upset when they spill something, child is angry because they are not allowed to have a snack). Parents are presented with vignettes in which a child experiences distress and are asked to rate the likelihood of engaging in six different responses. Each response corresponds to one of 6 subscales which categorizes different emotion socialization strategies: expressive encouragement (telling children it is okay to feel and express their emotions), emotion-focused responses (responses that target the negative emotion and aim to soothe the child reduce the negative emotion), problem-focused responses (responses that target the problem that is causing the negative emotion and through this aim to help the child get eliminate the negative emotion by fixing the problem that made

them feel that way in the first place), punitive responses (punishing the child for expressing their negative emotions), minimization responses (parent tells their child that what is making them upset is not a big deal or encourages them not to express their emotions), and distress responses (parent becomes distressed themselves in response to their child's negative emotion).

In most of the literature, PSE behaviors have been classified dichotomously as supportive and unsupportive/nonsupportive (Eisenberg et al., 1998) with supportive PSE typically being linked to adaptive emotional development and unsupportive PSE being linked to maladaptive emotional development. For example, higher levels of supportive PSE have been linked to better emotion regulation and fewer internalizing symptoms (Jin et al., 2017), and higher levels of unsupportive PSE have been linked to higher levels of emotion dysregulation (Shaffer et al., 2012). Most of the studies, including those using the CCNES, dichotomize the strategies measured into supportive and unsupportive by averaging the 3 strategies classified as supportive (expressive encouragement, emotion-focused responses, and problem-focused responses) and the 3 strategies classified as unsupportive (punitive responses, minimization responses, and distress responses) to generate two subscales. Spinrad and colleagues (2007) confirmed this dichotomy by using principal component analysis (PCA) using the CCNES adapted for toddlers (CCNES-T; Eisenberg et al., 1996; Fabes et al, 1990). The PCA found two factors: supportive which included emotion focused responses, problem focused responses, and expressive encouragement and unsupportive which included minimization and punitive reactions.

Recent work has critiqued this dichotomous approach for conceptual and methodological limitations. First, the dichotomy fails to capture the nuances of parent's PSE behaviors by combining various strategies together into two overarching constructs, that do not reflect how parents can use a combination of both supportive and unsupportive behaviors. Parents can use

both supportive and unsupportive behaviors in a single interaction with their children, and also across situations (Lunkenheimer et al., 2007; Miller et al., 2015). In addition, previous work has demonstrated that different PSE practices interact to predict child outcomes. Specifically, emotion dismissing PSE, a form of unsupportive PSE, is associated with increased behavior problems and poorer emotion regulation, but emotion coaching PSE, a form of supportive PSE, buffered the negative effects of emotion dismissing (Lunkenheimer et al., 2007). Thus, by analyzing supportive and unsupportive responses separately or by looking at individual strategies alone we can not capture the nuances of PSE behaviors that parents engage in.

In addition, the dichotomy oversimplifies the theoretical construct of PSE. That is, high levels of supportive PSE are not always adaptive for all children and across age or context, and likewise, unsupportive PSE is not always maladaptive. Mirabile and colleagues (2018) demonstrated that supportive PSE behaviors only promote adaptive outcomes (i.e., better emotion regulation, fewer internalizing symptoms, and fewer externalizing behaviors) for younger children, and as children get older supportive PSE was no longer adaptive, as supportive PSE was associated with poorer emotion regulation, more internalizing symptoms, and more externalizing behaviors (Mirabile et al., 2018). In addition, supportive PSE can have negative associations with children's school adjustment as reported by their teachers (Castro et al., 2018). Parent's reports of more supportive PSE were associated with teacher reports of fewer socioemotional skills and more behavior problems, indicating that supportive PSE may have detrimental effects on children's school functioning.

In addition, unsupportive PSE strategies can be adaptive in the context of racism and discrimination (Dunbar et al., 2017, 2021). Minimization responses are an important strategy of ethnic-racial socialization for black children, and parent's endorsement of

minimizing/suppression of children's negative emotions was associated with fewer externalizing symptoms (Dunbar et al. 2021). By using the label of "supportive" we give the impression that these behaviors are always good and "unsupportive" are always bad despite growing empirical evidence that the relations are more complex. In summary, there is work that demonstrates that the use of the dichotomy 1) does not capture co-occurrence of strategies, 2) limits our understanding of how the use of individual PSE strategies and combinations of individual strategies shapes child emotional development, and 3) leads to a tendency to assume that supportive strategies will always have a positive outcome regardless of context or age.

In response to these criticisms and limitations, recent studies have used a person-centered approach to measure PSE arguing that this type of approach will overcome the limitation of the standard variable-centered approach of creating averages of supportive and unsupportive behaviors (Mckee et al., 2021). Person-centered approaches differ from variable-centered approaches as they analyze parameters first at the level of the individual then aggregation takes place at the level of the parameters rather than the raw data (Von Eye & Wiedermann, 2015). Whereas variable-centered approaches compare variables to each other and consider individuals to be random data carriers, person-centered analyses allow us to characterize groups of individuals with similar responses into "profiles." This allows us to identify distinct patterns of responding across various measures. Taking a person-centered approach thus allows researchers to measure multiple strategies in different "profiles" of PSE rather than creating composites of behaviors based only on averaged patterns.

Turning back to PSE as measured by the CCNES, Miller and colleagues found two profiles of parental PSE behaviors in a sample of children aged 18 months to 5-year-olds (Miller et al., 2015). Specifically, the first profile they called low-involvement, which included low

levels of all emotion socialization strategies, and the second they called high-involvement which was characterized by high levels of all emotion socialization strategies. The high involvement profile, which included high levels of both theoretically “supportive” (e.g., emotion-focused responses) and “unsupportive” (e.g., minimization) strategies was linked with better regulation. This approach provides evidence that both theoretically supportive and unsupportive behaviors co-occur within individuals suggesting that all strategies should be studied together. In addition, high levels of a range of strategies appeared to be most adaptive profile for child outcomes.

Additional studies using a person-centered approach have found different types of profiles including varying levels of strategies. In one study of infants (up to age 3) researchers found three profiles of parents’ PSE behaviors (Buhler-Wassmann et al., 2021). The first profile, disengaged, included parents who had neutral to moderate levels of all responses to children’s emotions. The second profile, engaged, reflected parents who used high levels of expression encouragement, problem focused, and emotion focused responses and low levels of distress, punishment, and minimization. The third profile, engaged + supportive, was similar to the engaged profile except expressive encouragement, problem focused, and emotion focused responses were higher than engaged profile and distress, punishment or minimization were lower than engaged profile. In addition, Buhler-Wassmann and colleagues (2021) found that children’s diurnal cortisol levels were higher, and slopes were flatter, when mothers used more disengaged emotion socialization strategies reflecting poorer regulation.

In another study, four profiles of PSE behaviors were identified in children age 15 months to 5 years (McKee et al., 2021). The first profile was an emotion coaching profile which included low levels of distress, punishment and minimization and high levels of expressive encouragement, problem focused, and emotion focused responses. In contrast, the second profile



was an emotion dismissive profile which included high levels of distress, punishment and minimization and low levels of expressive encouragement, problem focused, and emotion focused responses. These profiles are consistent with a dichotomous approach. However, the third profile, limited engagement, included low levels of all strategies. The fourth profile, a moderate profile, included moderate levels of all strategies overall but high levels of problem focused reactions and low levels of emotion focused reactions. This profile in particular demonstrates the nuances we can identify by using a person-centered approach that does not combine strategies into two overarching constructs (McKee et al., 2021).

Previous research has also generated profiles of family emotion socialization and found that a diverse set of responses to children's emotions within a family, rather than exclusively supportive reactions, is most adaptive for children's psychosocial adjustment (Miller-Slough et al., 2017). Family profiles that included fathers who used high levels of supportive and unsupportive reactions and mothers who used low levels of supportive and unsupportive reactions predicted lower internalizing symptoms for children, demonstrating the importance of considering both supportive and unsupportive PSE responses for children's ER together. These emerging findings demonstrate that some parents use high levels of all strategies, others use low levels of all strategies, and some parents use high levels of some strategies and low or moderate levels of other strategies and therefore, studying only supportive or unsupportive PSE does not give researchers a comprehensive picture of what PSE behaviors parents are using. These studies suggest that supportive and unsupportive PSE strategies together predict child outcomes, and thus must be analyzed together.

While an increasing number of studies are beginning to study emotion socialization using a person-centered approach, this is still a relatively novel approach. There has not been

much consistency across studies in profiles that have been identified. The most consistent profile is the profile that is low on use of all emotion socialization strategies. Other than this profile, we do not see significant overlap in the profiles identified. Thus, one might conclude that profile analyses are not a good way to measure PSE, as there is a lack of consistency in the current literature. Instead, if we take a closer look, we notice that these studies have been done cross sectionally with large child age ranges (i.e., 3 to 12 years; 3 to 7 years; 15 months to 5 years; Buhler-Wassmann et al., 2021; McKee et al., 2021; Miller et al., 2015). We believe these differing and wide age ranges may be partially accounting for the differences between studies because of the differing developmental needs and PSE practices. Previous variable centered research has demonstrated that parent's emotion socialization goals and attitudes change over time (Settler & Katz, 2014) and that the impacts of emotion socialization for children's emotional development can vary by age (Mirabile et al., 2018). Additionally, previous person-centered research has shown age to be a significant predictor of PSE profile membership (McKee et al., 2021). Therefore, we believe that the best approach to understanding emotion socialization is to use a person-centered approach to study PSE within ages and to compare differences in profiles across ages.

Once distinct profiles are identified across age we can try to generalize the findings and the profiles identified across studies. Taking this next step will give researchers a more nuanced view of emotion socialization that takes into consideration the fact that parents use a variety of emotion socialization behaviors and that not all supportive behaviors are adaptive and unsupportive behaviors maladaptive. In addition, this approach will generate a more complete understanding of profiles of emotion socialization that can be generalized across studies.

## The Current Study

More research is needed to understand parent's emotion socialization profiles in early childhood. Specifically, this thesis will address whether a consistent set of profiles of PSE can be identified across age. A more accurate/nuanced measurement of PSE that captures the pattern of behaviors will advance the field of how PSE is associated with child social and emotional development. To date, all studies of PSE profiles have used cross-sectional designs with wide ranges of ages. No study, to our knowledge, has identified profiles of PSE within a single age or considered how profiles of PSE differ between ages in the same sample. Therefore, the aims of our study are as follows.

**Aim 1a:** Characterize PSE profiles at age 2 and 5. **H1a** At age 2, we hypothesize identification of three PSE profiles with one profile that is low on all strategies. In addition, a second profile will emerge that includes high levels of distress and punitive strategies and moderate to low levels of other strategies. Finally, we expect to see a profile that is high on expressive encouragement, emotion focused, and problem focused strategies and low on distress, punitive, and minimization strategies. **H1a** At age 5, we also hypothesize identification of three PSE profiles with one profile that is low on all strategies. We also expect to see a second profile that includes high levels of distress, punitive, and minimization strategies and moderate to low levels of other strategies. Finally, we expect to see a profile that is high on expressive encouragement, emotion focused, problem focused, and minimization strategies and low on distress and punitive strategies.

**Aim 1b.** Given the differences in these measures across ages, direct associations cannot be conducted, but we will examine descriptive differences between PSE profile results at age 2 and 5. **H1b:** Profiles of PSE will differ between ages 2 and 5. At age 5, we expect to see profiles

of PSE that include high levels minimization strategies that we do not expect to see at age 2. Specifically, at age 5 we expect to see a profile that includes high levels of emotion focused, problem focused, expressive encouragement, and minimization strategies. And a profile that includes high levels of distress, punitive, and minimization strategies. However, we do expect to find a profile of low strategy use at both ages.

Once we have identified and explored profiles at these two ages, we examine how known child correlates of PSE are associated with these profiles. Children's negative affectivity, the propensity toward experiencing and expressing negative emotions (Watson & Clark, 1984), is one child characteristic that has been associated with PSE (Eisenberg & Fabes, 1994; Putnam et al., 2002; Wong et al., 2009). Specifically, higher child negative affectivity has been associated with increased use of distress and punitive responses to children's negative emotions (Eisenberg & Fabes, 1994). Parenting style is another known correlate of PSE (Chan et al., 2009). Specifically, authoritative parenting has been shown to be associated with higher levels of expressive encouragement, emotion focused, and problem focused responses and authoritarian parenting was associated with more emotion dismissing PSE.

**Aim 2a:** Examine associations of temperamental negative affectivity with PSE profile membership at age 2 and 5. **H2a:** Temperamental negative affectivity will predict PSE profile membership at both age 2 and age 5. Higher temperamental negative affectivity will predict membership in a profile that includes higher use of distress and punitive responses at both ages.

**Aim 2b:** Examine associations of parenting style with PSE profile membership at age 2 and 5. **H2b:** Parenting style will predict PSE profile membership at both age 2 and age 5. Higher levels of authoritative parenting will be associated with a profile that is high on use of all strategies at both ages. Higher levels of authoritarian parenting will be associated with a profile that includes

higher use of distress and punitive responses at both ages. Finally, higher levels of permissive parenting will be associated with membership in a profile that is low on use of all strategies.

### **Method**

Data for the current study come from a larger longitudinal study of toddlers' temperament designed to investigate socioemotional development and adjustment from 24 months to age 6 (kindergarten school year). Participants were recruited from a rural area of the northeastern part of the United States primarily from local birth records by mail and were enrolled as part of this study after they participated in an 18-month screening survey. The study initially oversampled for children high in fear from a set of 18-month screening questionnaires including the Infant-Toddler Social Emotional Assessment (ITSEA; Carter et al., 2003) and a six-item questionnaire about the toddler's fearfulness in novel situations.

### **Participants**

125 children, 63 selected as fearful and 62 unselected, participated in a 2-year laboratory visit (61 girls,  $M_{age} = 24.43$  months,  $SD_{age} = .47$ ) In order to balance the sample to ensure full range of temperament traits, 45 more children who were identified as exuberant based on the 18-month screening were recruited at a later timepoint. As this study is primarily focused on parents' patterns of PSE, we only use the portion of this sample that reported on PSE. At age 2 ( $M_{age} = 24.448$  months,  $SD = 0.4903$  months) this included 111 dyads (55 girls). At age 5 ( $M_{age} = 5.818$  years,  $SD = 4.076$  months), this included 97 dyads (45 girls). At age 2, children's race/ethnicity was reported by parents as predominantly non-Hispanic, European American (91.9%), 5.4% Asian/Asian American, 1.8% American Indian, 0.9% Hispanic, and 0.9% African American. Family annual incomes ranged from less than \$15,000 (1.8%) to more than \$60,000 (49.5%), with most families (81.2%) earning more than \$30,000. Mothers' education ranged

from 12 to 20 years ( $M = 16.22$  years,  $SD = 2.316$ ), and fathers' education ranged from 10 to 20 years ( $M = 15.62$  years,  $SD = 2.406$ ). At age 5, children's race/ethnicity reported by parents remained as predominantly non-Hispanic, European American (89.7%), 5.2% Asian/Asian American, 1% American Indian, 1% Hispanic, and 1% African American. Family annual incomes ranged from less than \$15,000 (1%) to more than \$60,000 (53.6%), with most families (91.9%) earning more than \$30,000. Mothers' education ranged from 12 to 20 years ( $M = 16.56$  years,  $SD = 2.23$ ), and fathers' education ranged from 10 to 20 years ( $M = 15.55$  years,  $SD = 2.375$ ).

## **Procedure**

As part of this study, children and parents attended laboratory visits when children were 2 and 3.5 years old, and in the fall of their kindergarten year. At laboratory visits, parents and children completed a variety of tasks designed to measure child temperament. For the purposes of this study, we will use data from parent questionnaires when children were 2 years old and during the fall of their kindergarten year (5 years old).

## **Measures**

### ***Emotion Socialization***

At age 2, mothers completed a modified version of the Coping with Children's Negative Emotions Scale for use with Toddlers (CCNES-T; Eisenberg et al., 1996; Fabes et al, 1990) this measure assesses mothers' reactions to their children's negative emotions in a variety of contexts (e.g., child becomes upset when they spill something, child is angry because they are not allowed to have a snack). There are six subscales: expressive encouragement, emotion-focused reactions, problem-focused reactions, punitive / minimization responses, distress responses, and granting wish reactions. The CCNES-T combines the minimization and punitive responses subscales. For

the purposes of this study, we separated the punitive and minimization scales and did not use the granting wishes scale, so we could mirror the scales used in the CCNES.

In the CCNES-T , mothers are presented with twelve vignettes in which a child experiences distress. Mothers are asked to rate the likelihood of their having seven specific reactions to each (1 = Very Unlikely to 7 = Very Likely). For example, one vignette from the CCNES-T reads, “If my child becomes upset because I removed something that my child should have not been playing with, I would: Tell my child that if he touches it again he will not be allowed to do something enjoyable (punitive) (b) Help my child think of something else to do that is fun (problem-focused) (c) Become upset myself (distress) (d) Tell my child it is okay to feel angry (expressive encouragement) (e) Distract my child with something else interesting (emotion-focused) (f) Give my child what he wants (granting wish) (g) Ignore my child’s upset reactions and take the object away (minimization)”. Subscales are computed by summing the likelihood of responding each way to each vignette and dividing by 12.

At age 5, mothers completed the Coping with Children’s Negative Emotions Scale (CCNES; Fabes, et al., 1990), this measure has six subscales: expressive encouragement, emotion-focused reactions, problem-focused reactions, punitive responses, minimization responses, and distress responses. Mothers are presented with twelve vignettes in which a child experiences distress. Mothers are asked to rate the likelihood of their having seven specific reactions to each (1 = Very Unlikely to 7 = Very Likely). For example, one vignette from the CCNES reads, “If my child loses some prized possession and reacts with tears, I would: tell my child that s/he is over-reacting (minimization) (b) help my child think of places s/he has not looked yet (problem-focused) (c) get upset with him/her for being so careless and then cry about it (distress) (d) tell him/her it is OK to cry when you feel unhappy (expressive encouragement) (e)

distract my child by talking about happy things (emotion-focused) (f) tell him/her that's what happens when you are not careful (punitive)". Subscales are computed by summing the likelihood of responding each way to each vignette and dividing by 12. This measure has adequate internal consistency, test–retest reliability and construct validity, according to published reports of its psychometric properties (e.g., Eisenberg & Fabes, 1994).

### ***Temperamental Negative Affect***

At age 2, mother completed the toddler behavior assessment questionnaire (TBAQ; Goldsmith, 1996). Mothers are asked to report how often their child engaged in 120 different behaviors on a 7-point Likert scale where 1 is never and 7 is always. For example, one question reads “When in a high place (for example, on a balcony), how often did s/he seem afraid?”. Each question corresponds to one or more of the following subscales: activity level, anger, appropriate attentional allocation, inhibitory control, interest, object fear, perceptual sensitivity, pleasure, sadness, social fear, and soothability. A composite score of negative affect was generated from the mean of the following subscales: anger, sadness, social fear, and object fear.

At age 5, mothers completed the children’s behavior questionnaire (CBQ; Rothbart et al., 2001). Mothers are presented with 94 statements that describe children's reactions to a number of situations and are asked to respond how likely their child is to react in a certain way on a 7-point likert scale (1= extremely untrue of your child and 7= extremely true of your child). The following subscales are computed: activity level, anger/frustration, approach/positive anticipation, attentional focusing, discomfort, fear, high intensity pleasure, impulsivity, inhibitory control, low intensity pleasure, perceptual sensitivity, sadness, shyness, and smiling and laughter. 3 super factors are computed from the subscales: surgency, negative affectivity,



and effortful control. We used the negative affectivity factor composite of the CBQ which includes the scales of anger/ frustration, sadness, discomfort, fear, and low soothability.

### ***Parenting Style***

At both age 2 and age 5 parents reported on their parenting style using the Parent Practices Questionnaire (PPQ; Robinson et al., 1995). Parents are asked to rate how often they exhibit 62 different behaviors with their child on a scale of 1-5 (1= never, 5= always). From this questionnaire the following subscales are generated: warmth and involvement, reasoning/induction, democratic participation, good natured/easy going, verbal hostility, corporal punishment, nonreasoning punitive strategies, directiveness, lack of follow through, ignoring misbehavior, self- confidence. From these subscales, 3 overarching measures of parenting style are generated. The authoritative parenting scale was computed as the mean of the warmth and involvement, reasoning/induction, democratic participation, and good natured/easy going subscales. The authoritarian parenting scale was computed as the mean of the corporal punishment, nonreasoning punitive strategies, and directiveness subscales. Finally, the permissive scale was computed as the mean of the lack of follow through, ignoring misbehavior, and self- confidence subscales.

## **Results**

### **Preliminary Analyses**

Descriptive statistics for age 2 variables are shown in Table 1 and descriptive statistics for age 5 variables are shown in Table 2. Correlations for age 2 variables are shown in Table 3. As expected, some PSE strategies were correlated. Specifically, expressive encouragement was positively associated with distress responses, minimization responses, and emotion-focused responses and negatively associated with punitive responses. Emotion-focused responses were

negatively associated with punitive responses and problem-focused responses and positively associated with minimization responses and expressive encouragement. Finally, problem-focused responses were positively associated with punitive reactions.

In addition, some PSE strategies were associated with parenting style. Authoritative parenting was negatively associated with punitive reactions and positively associated with minimization responses, expressive encouragement, and emotion-focused responses. Authoritarian parenting was positively associated with punitive reactions and problem-focused responses and negatively associated with minimization responses, expressive encouragement, and emotion-focused responses. Finally, permissive parenting was positively associated with distress responses, punitive reactions, and expressive encouragement. Authoritative parenting was negatively associated with authoritarian and permissive parenting, and permissive parenting and authoritarian parenting were positively associated.

Correlations for age 5 variables are shown in Table 4. As expected, some PSE strategies were correlated. Specifically, distress responses, punitive reactions, and minimization were positively associated. Expressive encouragement was negatively associated with punitive reactions and minimization responses and positively associated with problem-focused responses. Problem-focused responses were also positively associated with emotion-focused responses. In addition, some PSE strategies were associated with parenting style at age 5. Authoritative parenting was positively associated with punitive reactions, minimization responses, and emotion-focused responses. Authoritarian parenting was positively associated with expressive encouragement, emotion-focused responses, and problem-focused responses. Finally, permissive parenting was associated with minimization responses. Authoritarian parenting, permissive parenting, and authoritative parenting were all positively associated.

### **Profiles of Emotion Socialization at Age 2**

Model fit indices for age 2 LPA analyses examining 1-4 profile solutions are found in Table 5. A three-profile solution minimized the BIC. BIC penalizes model complexity, so this suggests that 3 is the minimum number of profiles to fit the data is 3. BLRT suggested that a 4-profile solution provided better fit than a 3-profile solution. In addition, entropy was higher for the 4-profile solution. However, the BIC suggested that a 3-profile solution provided the best fit. We examined both 3 and 4 profile solutions (Figure 1 & 2) and associations with parenting style. We use theoretical and empirical evidence to inform which profile solution should be accepted.

First, we outline the results of the 3-profile solution. Across all 3 profiles, parents endorsed more problem-focused, emotion-focused, and expressive encouragement than minimization, punitive, and distress responses. The first profile was the highest on problem-focused, emotion-focused, and expressive encouragement and low on minimization, punitive, and distress responses. This profile appears to follow the dichotomous approach's idea of a most adaptive profile, as it is highest in emotion-focused, problem focused, and expressive encouragement. This profile is distinct from the other two in their endorsement of emotion and problem focused strategies; thus, we categorize this profile as emotion and problems focused. The second profile had the highest levels of minimization, punitive, and distress responses, moderate levels of expressive encouragement and high levels of problem-focused and emotion-focused responses, however they were lower than the first profile in their endorsement of problem-focused and emotion-focused responses. Parents in this profile are distinct from parents in the other two profiles because they tend to use a diverse set of strategies at moderate and high levels. Therefore, we named this profile diverse strategy use. Lastly, there was a third profile that had similarly low levels of minimization, punitive, and distress responses as the first profile,

similarly high levels of problem-focused and emotion-focused responses as the moderate profile, and the lowest levels of expressive encouragement of any profile. We consider this profile solutions-focused, as parents in this profile use high levels of problem focused and emotion focused responses in comparison to other strategies and are distinct from the other two profiles in their low endorsement of expressive encouragement.

A one-way between subjects ANOVA was conducted to compare differences in parenting style by PSE profile membership (Table 6). There was a significant main effect of PSE profile membership on endorsement of authoritative  $F(2, 114) = 12.24, p < .001$ , authoritarian  $F(2, 114) = 13.08, p < .001$ , and permissive  $F(2, 114) = 4.25, p = .02$  parenting practices at the  $p < .05$  level. Post hoc comparisons using the Tukey HSD test indicated that parents in profile 1- emotions and problems focused ( $M = 4.01$ ) were more likely to endorse authoritative parenting than parents in profile 2- diverse strategy use ( $M = 3.76$ ) or profile 3- solution focused ( $M = 3.65$ ). In addition, parents in profile 2- diverse strategy use ( $M = 2.01$ ) were more likely to endorse authoritarian parenting than those in profile 1- emotions and problems focused ( $M = 1.71$ ) or profile 3- solutions focused ( $M = 1.71$ ). Likewise, parents in profile 2- diverse strategy use ( $M = 2.05$ ) were more likely to endorse permissive parenting than those in profile 1- emotions and problems focused ( $M = 1.88$ ) or profile 3- solution focused ( $M = 1.83$ ). There was no significant main effect of profile membership on child negative affectivity  $F(2, 112) = 1.49, p = .23$ .

Next, we outline the results of the 4-profile solution. Again, across all profiles, parents endorsed more problem-focused, emotion-focused, and expressive encouragement than minimization, punitive, and distress responses. The first profile looked very similar to the first profile in the 3-profile solution. This profile was the highest on problem-focused, emotion-focused, and expressive encouragement and low on minimization, punitive, and distress

responses. This profile is distinct from the other profiles in their high focus on emotions and problems over other strategies. Therefore, we classified this profile as emotions and problems focused. The second profile endorsed moderate levels of all strategies. This profile endorsed the lowest levels of emotion-focused and problem focused responses, moderate levels of expressive encouragement, and higher levels of punitive and minimization responses than the first or fourth profile. This profile is distinct from the others in their moderate endorsement of all strategies. The third profile endorsed similar levels of distress and punitive responses to the second profile, and the highest level of minimization of any profile. This profile endorsed higher levels of expressive encouragement than the second or fourth profile, but less than the first profile. However, this profile endorsed similarly high levels of emotion-focused, and problem focused responses to the first profile. The second and third profiles are distinct from the other profiles in their higher endorsement of punitive and minimization responses. However, the third profile endorses higher levels of minimization, expressive encouragement, emotion-focused, and problem-focused responses. Thus, we classify profile 2 as diverse use at low levels and profile 3 as diverse use at high levels. The fourth profile endorsed low levels of distress, punitive, and minimization responses similar to the first profile, and high levels of emotion-focused and problem-focused response. Notably, this profile endorsed the lowest levels of expressive encouragement of any profile. Therefore, we consider this profile similar to the third profile in the 3-profile solution and classify it as solutions-focused.

A one-way between subjects ANOVA was conducted to compare differences in parenting style by PSE profile membership for the 4-class solution (Table 7). There was a significant main effect of PSE profile membership on endorsement of authoritative  $F(2, 113) = 10.55, p < .001$ , authoritarian  $F(2, 113) = 8.24, p < .001$ , and permissive  $F(2, 113) = 4.05, p = .01$  parenting

practices at the  $p < .05$  level. Post hoc comparisons using the Tukey HSD test indicated that parents in profile 1-emotions and problems focused ( $M = 3.91$ ) endorsed higher levels of authoritative parenting than those in profile 4- solutions focused ( $M = 3.63$ ). In addition, parents in the profile 3- diverse use-high ( $M = 4.02$ ) endorsed more authoritative parenting than those in profile 2- diverse use-low ( $M = 3.66$ ) or profile 4- solutions focused ( $M = 3.63$ ). Parents in profile 1-emotions and problems focused ( $M = 2.03$ ) endorsed higher levels of authoritarian parenting than those in profile 3- diverse use-high ( $M = 1.71$ ) or profile 4- solutions focused ( $M = 1.71$ ), and parents in profile 2- diverse use low ( $M = 1.95$ ) endorsed more authoritarian parenting than those in profile 3- diverse use-high ( $M = 1.71$ ). Parents in profile 1-emotions and problems focused ( $M = 2.10$ ) endorsed higher levels of permissive parenting than those in profile 3- diverse use-high ( $M = 1.87$ ) or profile 4- solutions focused ( $M = 1.83$ ). There was no significant main effect of profile membership on child negative affectivity  $F(3, 111) = 1.40, p = .25$ .

### **Profiles of Emotion Socialization at Age 5**

Model fit indices for age 3 LPA analyses examining 1-4 profile solutions are found in Table 8. A three-profile solution minimized the BIC, SABIC, AIC, and improved entropy. However, the 3 and 4 profile solutions included profiles with only 1 participant in them. The 2-profile solution reduced BIC, SABIC, AIC in comparison to the 1-profile solution. Therefore, we accepted the 2-profile solution (Figure 3). In both profiles, parents endorsed more problem-focused, emotion-focused, and expressive encouragement than minimization, punitive, and distress responses. The first profile was high on problem-focused, emotion-focused, and expressive encouragement and low on minimization, punitive, and distress responses. This profile was similar to the emotions and problems focused profile we identified at age 2, so we also classified this profile as emotions and problems focused.. The second profile had similarly

high levels of emotion focused and problem-focused responses to the first profile and higher levels of distress responses punitive reactions, minimization responses, and expressive encouragement. This profile is characterized by moderate to high use of all strategies, so we classified it as diverse strategy use, similar to profiles identified at age 2.

An independent samples t- test was conducted to compare differences in parenting style by PSE profile membership for the 2-class solution (Table 9). There was a significant effect of PSE profile membership on endorsement of authoritative  $t(95) = 3.97, p < .001$  and permissive  $t(95) = 1.83, p = .04$  parenting practices at the  $p < .05$  level, but there was no significant effect of PSE profile membership on endorsement authoritarian parenting practices  $t(95) = 0.48, p = .32$ . Parents in profile 1- emotions and problems focused ( $M = 2.67$ ) endorsed more authoritative parenting than parents in profile 2- diverse strategy use ( $M = 2.43$ ), and parents in profile 1- emotions and problems focused ( $M = 3.14$ ) endorsed more permissive parenting than parents in profile 2- diverse strategy use ( $M = 3.09$ ). There were no significant differences in child negative affectivity between profiles  $t(90) = 1.21, p = .99$ .

## **Discussion**

The goals of the current study were to identify profiles of PSE at two ages, to compare the sets of profiles identified, and to validate the profiles with known correlates of PSE. PSE has significant implications for children's emotional development and has been linked to emotion regulation (Blair et al., 2014;), social competence (Spirad et al., 2007), internalizing symptoms (Jin et al., 2017), behavior problems (Denham et al., 2000), and other developmental outcomes. However, the traditional dichotomous way we have studied, and measured PSE may be limiting our understanding of how PSE impacts child development, as the dichotomous approach oversimplifies the construct of PSE. Thus, recent work has used a person-centered approach to

create profiles of PSE. However, these studies have generated inconsistent sets of profiles that vary across studies making it difficult to draw generalizable conclusions. We hypothesized that the inconsistencies across studies may be due in part to the differing and wide age ranges used, as children of different ages have different developmental needs and require varying levels and types of PSE. Thus, the current study aimed to identify profiles, using a person-centered approach, of PSE at two ages (2 and 5 years old), in the same sample and compare the profiles identified at the two ages.

We hypothesized identification of three PSE profiles at age two with one profile that is low on all strategies, a profile that includes high levels of distress and punitive strategies and moderate to low levels of other strategies, and a profile that is high on expressive encouragement, emotion focused, and problem focused strategies and low on distress, punitive, and minimization strategies. Results were partially consistent with our hypotheses; we found three profiles of PSE. One profile, that we named diverse strategy use, had the highest levels of minimization, punitive, and distress responses and moderate levels of expressive encouragement, but high levels of problem-focused and emotion-focused responses. We expected to see a profile that endorsed high levels of distress and punitive strategies and moderate to low levels of other strategies. Therefore, we did not see exactly the profile we expected but our profile was generally in line with our prediction. We also expected to identify a profile that is high on expressive encouragement, emotion focused, and problem focused strategies and low on distress, punitive, and minimization strategies, and our first profile did match this pattern of responses. We named this profile emotion and problem focused.

Previous studies have consistently found a profile that was low on all strategies (Buhler-Wassmann et al., 2021; McKee et al., 2021; Miller et al., 2015), so we expected to find a profile



that was low on all strategies, however we did not find that profile. We instead identified a profile that had low levels of minimization, punitive, and distress responses, high levels of problem-focused and emotion-focused responses, and low levels of expressive encouragement. We named this profile solutions focused because parents endorsed the highest levels of problem-focused and emotion-focused responses. We were surprised by the identification of this profile, as a similar profile has not been identified in the previous literature. It is possible that this profile is only seen for children in this developmental stage (i.e., age 2), and because of the wide age ranges used in other studies they did not see this profile. The emergence of this profile at age 2 suggests that some parents focus on stopping their child's negative emotions rather than encouraging their expression of emotion. We do not see this profile at age 5, so these parents may shift their PSE goals over time to include higher levels of expressive encouragement. It is also possible that this profile is unique to our sample.

At age 5, we hypothesized identification of one profile that is low on all strategies, another profile that includes high levels of distress, punitive, and minimization strategies and moderate to low levels of other strategies, and a profile that is high on expressive encouragement, emotion focused, problem focused, and minimization strategies and low on distress and punitive strategies. Results did not align with our hypotheses, we only identified two profiles of PSE. We identified a profile that is high on expressive encouragement, emotion focused, problem focused, and minimization strategies and low on distress and punitive strategies, which was consistent with our hypothesis. However, we expected to see one profile that was low on all strategies, and similarly to age 2 we did not identify this profile. Additionally, we expected to see a profile that endorsed high levels of distress, punitive, and minimization strategies and moderate to low levels of other strategies. We did not identify this profile; however, we did see a profile that had

moderate levels of distress responses, punitive reactions, minimization responses, and expressive encouragement and high levels of emotion focused and problem-focused responses.

At age 2, we found three profiles. One included parents who were focused on emotions and problems, one that was solutions focused, and one that endorsed diverse strategy use. At age 5 we found 2 profiles, one that was focused on emotions and problems and one that endorsed diverse strategy use. The profiles we identified across age 2 and age 5 were not entirely consistent with profiles identified in other studies that have used a person-centered approach to study PSE. Although, there were some similarities between the profiles we identified and those identified in other studies. The first profile we identified at age 2 and age 5 that we classified as emotions and problems focused is similar to the engaged + supportive profile and emotion coaching profiles identified in previous studies (Buhler-Wassmann et al., 2021; McKee et al., 2021). These profiles all included high levels of expressive encouragement, problem-focused, and emotion-focused responses and low levels of punitive, minimization, and distress responses. These profiles all reflect what the dichotomous approach considers the most adaptive profile as they are high on supportive PSE and low on unsupportive PSE. The consistency of this profile lends support to this pattern of PSE being an important cluster of parental socializing behavior, as we see it across age and samples. While this profile was consistent across these three studies, the other profiles we identified were unique to our study. Thus, we continue to see inconsistencies across studies, and believe that may be in part due to the different ages of the samples used, as previous research has shown that the most adaptive pattern of PSE may vary for children of different ages (Mirabile et al., 2018). In addition, other sample characteristics may influence what profiles are seen, as PSE can have different implications for children from different ethnic/racial backgrounds (Dunbar et al. 2021).

Next, turning to the second goal of the study, we compared profiles across the two ages. When we examined the profiles identified at age 2 and age 5 descriptively, we did see two different sets of profiles. However, some of the profiles were similar. We identified a profile that was high on emotion focused, problem focused, and expressive encouragement but low on minimization, distress and punitive responses that was consistent across both ages. This profile most closely aligns with the dichotomous theory's perspective of a supportive profile and has been seen in other studies that have used a person-centered approach to capture PSE (Buhler-Wassmann et al., 2021; McKee et al., 2021). We classified these profiles as being both emotion and problem focused, as parents endorsed the highest levels of expressive encouragement, emotion-focused responses, and problem-focused responses.

Additionally, at both ages we identified profiles with moderate levels of all strategies that we classified as diverse strategy use. However, the diverse strategy use profiles at age 2 and age 5 varied somewhat on certain strategy endorsement compared to other profiles. That is, although they were similar across age, how they were differentiated from other profiles differed by age. Specifically, at age 5, the diverse strategy profile endorsed similarly high levels of problem-focused and emotion-focused responses but higher levels of distress, punitive, and minimization responses than the other profile we identified at age 5 which we classified as emotions and problems focused.

At age 2, however, the diverse strategy use profile endorsed lower levels of problem-focused, emotion-focused, and expressive encouragement responses and higher levels of punitive and minimization responses than the emotions and profile focused profile. So, the diverse strategy profile at age 2 used less of the "supportive" strategies compared to the age 5 diverse strategy profile, especially compared to the other profiles within age. This is consistent with

previous variable centered research that has shown that more supportive PSE is associated with less adaptive outcomes as children get older (Mirabile et al., 2018). Notably, at age 2, we identified a unique profile that was not present at age 5, the solutions focused profile that endorsed high levels of emotion focused and problem focused responses and lower levels of expressive encouragement, minimization, punitive, and distress responses. This profile was only present at age 2. We believe this may be due to child age. For younger children some parents are primarily concerned with stopping children's negative emotions and not encouraging expression, but as children get older these parents also encourage emotion expression. However, this may also be due to measurement differences, as the specific scenarios presented in the CCNES-T differ from those presented in the CCNES.

Overall, the pattern of results is partially consistent with our hypothesis, as we saw that different types of profiles emerge at different ages. We expected this result as parents change their PSE goals and attitudes over time and likely change their patterns of PSE and use of various PSE strategies (Settler & Katz, 2014). However, we expected to see even more differentiation between the profiles identified at the two ages. In addition, the impacts of PSE for children's emotional development can vary by age and greater use of the traditional supportive strategies has been shown to sometimes have maladaptive effects on children's socioemotional development as they get older (Mirabile et al., 2018). The years before children start formal schooling are a critical period for children's emotional development as children make dramatic increases in their emotional development, so 2-year-old children and 5-year-old children require different emotional support (Cole & Hollenstein, 2018). Thus, we expected parents to use different patterns of PSE at age 2 and age 5. In addition, these results suggest that the lack of consistency across person-centered PSE research could in fact be due to the use of large age

ranges and that generalizable profiles are more likely to be identified if future studies use smaller age ranges.

The third goal of this study was to validate the profiles we identified with known correlates of PSE. We aimed to validate the profiles at both ages by examining associations with known correlates of PSE. We expected to find temperamental negative affectivity to predict PSE profile membership at both age 2 and age 5 such that higher temperamental negative affectivity would predict membership in a profile that includes higher use of distress and punitive responses at both ages. However, we did not find any significant associations with negative affectivity at either age.

It is hard to know why we did not replicate the findings of previous research that show negative affectivity to be associated with PSE. However, it could be because our measure of negative affectivity examined temperamental negative affectivity, and there could be other aspects of affectivity, such as regulatory processes, that are more closely associated with PSE. Our measure of PSE captures how parents respond to children's emotions and represents what they do to help children manage their negative emotions. Therefore, it is possible that temperament and propensity to experience negative emotion may not be the best measure of effectiveness of PSE. In contrast, ER is likely a better measure of effectiveness of PSE, as ER has a robust association with PSE (Blair et al., 2014; Jin et al., 2017; Shaffer et al., 2012). In addition, our sample was over sampled for fearful children, so the children and parents in our sample may not follow typical patterns of negative affectivity and PSE because our sample has less variability in negative affectivity compared to unselected samples.

We did find significant associations with parenting style. We found that parents in the emotions and problems focused profile at age 2 endorsed the highest levels of authoritative

parenting and parents in the diverse strategy use profile endorsed the highest levels of permissive and authoritative parenting. These patterns of association align with prior research which has shown authoritative parenting to be associated with higher levels of expressive encouragement, emotion focused, and problem focused responses and authoritarian parenting was associated with more emotion dismissing PSE (Chan et al., 2009). These results partially support our hypothesis. We hypothesized higher levels of authoritarian parenting would be associated with a profile that includes higher use of distress and punitive responses. Our results support this hypothesis, as the diverse strategy use profile was associated with the highest endorsement of authoritarian parenting. However, we expected higher levels of authoritative parenting to be associated with a profile that is high on use of all strategies, but our results show authoritative parenting to be associated with a profile that is high on expressive encouragement, emotion-focused responses, and problem-focused responses. Finally, we expected permissive parenting to be associated with a profile that was low on all strategies. We did not identify this profile, and permissive parenting was associated with the diverse strategy use profile.

At age five, parents in the emotions and problems focused groups endorsed more authoritative and permissive parenting. We hypothesized the same pattern of association between PSE profiles and parenting style at age 5 and age 2. Thus, at age 5 our results did not support our hypothesis that higher levels of authoritative parenting would be associated with a profile that is high on use of all strategies, higher levels of authoritarian parenting would be associated with a profile that includes higher use of distress and punitive responses, and higher levels of permissive parenting would be associated with membership in a profile that is low on use of all strategies.

We validated the profiles we identified by examining associations with parenting style. We also found different patterns of association with parenting style at age two and age 5. The emotions and problems focused profile was associated with the highest levels of authoritative parenting at both ages. However, this profile was also associated with the highest endorsement of permissive parenting only at age 5. In addition, the diverse strategy use profile was associated with the highest endorsement of authoritarian parenting only at age 2. The different patterns of association further support that parents use different patterns of PSE at age 2 and 5, as general parenting style is associated with different profiles of PSE at different ages.

### **Limitations and Future Directions**

This study is not without limitations. PSE can have differing associations with developmental outcomes for children from different contexts, and our sample was largely comprised of white families with moderate-to-high levels of education and income. Thus, the results of this study may only be generalizable to similar populations. Future research should examine profiles of PSE between different socioeconomic and racial/ethnic groups or examine SES and race/ethnicity as predictors of profile membership. In addition, the sample size of our study was relatively small for this type of analyses and may have limited the variety of profiles that emerged. At age 5, fit indices favored a 3 or 4 profile solution, however, we accepted the 2-profile solution because the 3rd profile only included one parent. It is possible that a 3-profile solution is more representative of the population, but our sample size was too small to identify another profile. Finally, because the measure of PSE that is used at age 2 (i.e., CCNES-T) is not the same as the measure of PSE used at age 5 (i.e., CCNES) we were not able to directly compare the two profile solutions and instead had to rely on descriptive comparison. However, these measures are similar and developmentally appropriate for 2 and 5 year-olds. Future

research is still needed to create generalizable profiles of PSE. Studies should consider how context, as well as age is related to profiles of PSE. In addition, studies should consider how PSE behaviors change over time and examine profiles of change.

The results of this study support the growing body of research using a person-centered approach to study PSE, as we identified and validated profiles of PSE that show more nuance in PSE beyond what we can capture with the dichotomous approach. Some of our profiles more closely align with the dichotomous approach than others. Specifically, the emotions and problems focused profiles identified at age 2 and age 5 correspond to the most adaptive pattern of PSE according to the dichotomous approach. However, the diverse strategy use profiles we identified at both ages contradict what you would expect to see from the dichotomy. This profile along with the solution-focused profile that we identified at age 2 demonstrate the nuance in PSE that we are able to identify using a person-centered approach that is lost when using the dichotomy to study PSE. Further, the results of this study shed light on a possible reason for the inconsistency between profiles identified in prior studies, as we saw two different sets of profiles at age 2 and age 5. The results of our study, along with other studies that have used a person-centered approach to study PSE, suggest that the traditional dichotomous approach fails to capture the nuances of PSE. Further, the results of this study suggest that we can get a nuanced measure of PSE by examining profiles of emotion socialization within individual ages.

Accurately capturing the nuances of PSE will allow researchers to more accurately understand how PSE impacts children's development. We know that PSE has important implications for children's development (e.g., emotion regulation, social competence, internalizing symptoms, behavior problems (Blair et al., 2014; Denham et al., 2000; Jin et al.,



2017; Spirad et al., 2007)). Therefore, by measuring PSE using a person-centered approach we can better understand the implications of PSE for child development.

## References

- Beauchaine, T. P., & Thayer, J. F. (2015). Heart rate variability as a transdiagnostic biomarker of psychopathology. *International Journal of Psychophysiology*, *98*(2), Article 2.
- Blair, B. L., Perry, N. B., O'Brien, M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2014). The indirect effects of maternal emotion socialization on friendship quality in middle childhood. *Developmental Psychology*, *50*(2), Article 2.
- Blair, C. (2016). Developmental science and executive function. *Current Directions in Psychological Science*, *25*(1), 3–7.
- Blair, C., & Raver, C. C. (2015). School readiness and self-regulation: A developmental psychobiological approach. *Annual Review of Psychology*, *66*, 711.
- Buhler-Wassmann, A. C., Hibel, L. C., Fondren, K., & Valentino, K. (2021). Child diurnal cortisol differs based on profiles of maternal emotion socialization in high risk, low income, and racially diverse families. *Developmental Psychobiology*, *63*(3), Article 3.  
<https://doi.org/10.1002/dev.22048>
- Calkins, S. D. (1994). Origins and outcomes of individual differences in emotion regulation. *Monographs of the Society for Research in Child Development*, *53*–72.
- Carter, A. S., Briggs-Gowan, M. J., Jones, S. M., & Little, T. D. (2003). The infant–toddler social and emotional assessment (ITSEA): Factor structure, reliability, and validity. *Journal of Abnormal Child Psychology*, *31*(5), 495–514.
- Castro, V. L., Halberstadt, A. G., & Garrett-Peters, P. T. (2018). Changing Tides: Mothers' Supportive Emotion Socialization Relates Negatively to Third-Grade Children's Social Adjustment in School. *Social Development (Oxford, England)*, *27*(3), Article 3. PubMed.  
<https://doi.org/10.1111/sode.12251>

Chan, S. M., Bowes, J., & Wyver, S. (2009). Parenting Style as a Context for Emotion Socialization.

*Early Education and Development*, 20(4), Article 4. <https://doi.org/10.1080/10409280802541973>

Cole, P. M., & Hollenstein, T. (2018). *Emotion regulation: A matter of time*. Routledge.

Cole, P. M., & Jacobs, A. E. (2018). From children's expressive control to emotion regulation:

Looking back, looking ahead. *European Journal of Developmental Psychology*, 15(6), 658–677.

Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct:

Methodological challenges and directions for child development research. *Child Development*, 75(2), Article 2.

Cole, P. M., Tan, P. Z., Hall, S. E., Zhang, Y., Crnic, K. A., Blair, C. B., & Li, R. (2011).

Developmental changes in anger expression and attention focus: Learning to wait.

*Developmental Psychology*, 47(4), 1078.

Cunningham, J. N., Kliewer, W., & Garner, P. W. (2009). Emotion socialization, child emotion

understanding and regulation, and adjustment in urban African American families: Differential associations across child gender. *Development and Psychopathology*, 21(1), Article 1.

Cambridge Core. <https://doi.org/10.1017/S0954579409000157>

Denham, S. A., Bassett, H. H., Zinsser, K., & Wyatt, T. M. (2014). How preschoolers' social-

emotional learning predicts their early school success: Developing theory-promoting,

competency-based assessments. *Infant and Child Development*, 23(4), 426–454.

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental

Contributions to Preschoolers' Emotional Competence: Direct and Indirect Effects. *Motivation and Emotion*, 21(1), Article 1. <https://doi.org/10.1023/A:1024426431247>

Denham, S. A., Workman, E., Cole, P. M., Weissbrod, C., Kendziora, K. T., & ZAHN-WAXLER, C.

(2000). Prediction of externalizing behavior problems from early to middle childhood: The role

of parental socialization and emotion expression. *Development and Psychopathology*, 12(1), 23–45.

Dunbar, A. S., Leerkes, E. M., Coard, S. I., Supple, A. J., & Calkins, S. (2017). An integrative conceptual model of parental racial/ethnic and emotion socialization and links to children's social-emotional development among African American families. *Child Development Perspectives*, 11(1), 16–22.

Dunbar, A. S., Zeytinoglu, S., & Leerkes, E. M. (2021). When is Parental Suppression of Black Children's Negative Emotions Adaptive? The Role of Preparation for Racial Bias and Children's Resting Cardiac Vagal Tone. *Research on Child and Adolescent Psychopathology*, 1–14.

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental Socialization of Emotion. *Psychological Inquiry*, 9(4), Article 4. [https://doi.org/10.1207/s15327965pli0904\\_1](https://doi.org/10.1207/s15327965pli0904_1)

Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. *Child Development*, 67(5), 2227–2247.

Eisenberg, N., & Morris, A. S. (2002). *Children's emotion-related regulation*.

Eisenberg, N., & Sulik, M. J. (2012). Emotion-related self-regulation in children. *Teaching of Psychology*, 39(1), 77–83.

Fabes, R. A., Eisenberg, N., & Miller, P. A. (1990). Maternal correlates of children's vicarious emotional responsiveness. *Developmental Psychology*, 26(4), 639.

Fabes, R. A., Leonard, S. A., Kupanoff, K., & Martin, C. L. (2001). Parental Coping with Children's Negative Emotions: Relations with Children's Emotional and Social Responding. *Child Development*, 72(3), Article 3. <https://doi.org/10.1111/1467-8624.00323>

- Goldsmith, H. (1996). Studying temperament via construction of the Toddler Behavior Assessment Questionnaire. *Child Development, 67*(1), 218–235.
- Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology, 10*(3), Article 3. <https://doi.org/10.1037/0893-3200.10.3.243>
- Hodgins, M. J., & Lander, J. (1997). Children's coping with venipuncture. *Journal of Pain and Symptom Management, 13*(5), 274–285.
- Jin, Z., Zhang, X., & Han, Z. R. (2017). Parental Emotion Socialization and Child Psychological Adjustment among Chinese Urban Families: Mediation through Child Emotion Regulation and Moderation through Dyadic Collaboration. *Frontiers in Psychology, 8*, 2198–2198. PubMed. <https://doi.org/10.3389/fpsyg.2017.02198>
- Jones, S., Eisenberg, N., Fabes, R. A., & MacKinnon, D. P. (2002). Parents' reactions to elementary school children's negative emotions: Relations to social and emotional functioning at school. *Merrill-Palmer Quarterly (1982-), 133–159*.
- Kochanska, G., Murray, K. T., & Harlan, E. T. (2000). Effortful control in early childhood: Continuity and change, antecedents, and implications for social development. *Developmental Psychology, 36*(2), Article 2. <https://doi.org/10.1037/0012-1649.36.2.220>
- Kopp, C. B. (1982). Antecedents of self-regulation: A developmental perspective. *Developmental Psychology, 18*(2), 199.
- Kopp, C. B. (1989). Regulation of distress and negative emotions: A developmental view. *Developmental Psychology, 25*(3), Article 3.

- Lunkenheimer, E., Hamby, C. M., Lobo, F. M., Cole, P. M., & Olson, S. L. (2020). The role of dynamic, dyadic parent–child processes in parental socialization of emotion. *Developmental Psychology*, *56*(3), Article 3. <https://doi.org/10.1037/dev0000808>
- Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental Emotion Coaching and Dismissing in Family Interaction. *Social Development*, *16*(2), Article 2. <https://doi.org/10.1111/j.1467-9507.2007.00382.x>
- Mangelsdorf, S. C., Shapiro, J. R., & Marzolf, D. (1995). Developmental and temperamental differences in emotion regulation in infancy. *Child Development*, *66*(6), 1817–1828.
- McKee, L. G., Duprey, E. B., & O’Neal, C. W. (2019). Emotion socialization and young adult internalizing symptoms: The roles of mindfulness and emotion regulation. *Mindfulness*, 1–8.
- Miller, R. L., Dunsmore, J. C., & Smith, C. L. (2015). Effortful control and parents’ emotion socialization patterns predict children’s positive social behavior: A person-centered approach. *Early Education and Development*, *26*(2), Article 2.
- Miller-Slough, R. L., Dunsmore, J. C., Zeman, J. L., Sanders, W. M., & Poon, J. A. (2018). Maternal and paternal reactions to child sadness predict children’s psychosocial outcomes: A family-centered approach. *Social Development*, *27*(3), Article 3. <https://doi.org/10.1111/sode.12244>
- Mirabile, S. P., Oertwig, D., & Halberstadt, A. G. (2018). Parent emotion socialization and children’s socioemotional adjustment: When is supportiveness no longer supportive? *Social Development*, *27*(3), Article 3.
- Morasch, K. C., & Bell, M. A. (2012). Self-regulation of negative affect at 5 and 10 months. *Developmental Psychobiology*, *54*(2), 215–221.

- Morris, A. S., Criss, M. M., Silk, J. S., & Houlberg, B. J. (2017). The impact of parenting on emotion regulation during childhood and adolescence. *Child Development Perspectives, 11*(4), Article 4. <https://doi.org/10.1111/cdep.12238>
- Parke, R. D. (1994). Progress, paradigms, and unresolved problems: A commentary on recent advances in our understanding of children's emotions. *Merrill-Palmer Quarterly (1982-), 157–169*.
- Perry, N. B., & Calkins, S. D. (2018). A biopsychosocial perspective on the development of emotion regulation across childhood. In *Emotion regulation* (pp. 3–30). Routledge.
- Perry, N. B., Calkins, S. D., & Bell, M. A. (2016). Indirect effects of maternal sensitivity on infant emotion regulation behaviors: The role of vagal withdrawal. *Infancy, 21*(2), 128–153.
- Perry, N. B., Calkins, S. D., Nelson, J. A., Leerkes, E. M., & Marcovitch, S. (2012). Mothers' responses to children's negative emotions and child emotion regulation: The moderating role of vagal suppression. *Developmental Psychobiology, 54*(5), 503–513.
- Perry, N. B., Dollar, J. M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2020). Maternal socialization of child emotion and adolescent adjustment: Indirect effects through emotion regulation. *Developmental Psychology, 56*(3), Article 3. <https://doi.org/10.1037/dev0000815>
- Porges, S. W. (2007). The polyvagal perspective. *Biological Psychology, 74*(2), Article 2. PubMed. <https://doi.org/10.1016/j.biopsycho.2006.06.009>
- Posner, M. I., & Rothbart, M. K. (2000). Developing mechanisms of self-regulation. *Development and Psychopathology, 12*(3), 427–441.
- Putnam, S. P., Sanson, A. V., & Rothbart, M. K. (2002). Child temperament and parenting. In *Handbook of parenting: Children and parenting, Vol. 1, 2nd ed.* (pp. 255–277). Lawrence Erlbaum Associates Publishers.

- Robinson, C. C., Mandleco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports, 77*(3), 819–830.
- Rothbart, M. K., Ahadi, S. A., Hershey, K. L., & Fisher, P. (2001). Investigations of Temperament at Three to Seven Years: The Children's Behavior Questionnaire. *Child Development, 72*(5), Article 5. <https://doi.org/10.1111/1467-8624.00355>
- Shaffer, A., Suveg, C., Thomassin, K., & Bradbury, L. L. (2012). Emotion socialization in the context of family risks: Links to child emotion regulation. *Journal of Child and Family Studies, 21*(6), Article 6.
- Spinrad, T. L., Eisenberg, N., Gaertner, B., Popp, T., Smith, C. L., Kupfer, A., Greving, K., Liew, J., & Hofer, C. (2007). Relations of maternal socialization and toddlers' effortful control to children's adjustment and social competence. *Developmental Psychology, 43*(5), Article 5. <https://doi.org/10.1037/0012-1649.43.5.1170>
- Sroufe, L. A. (1997). *Emotional development: The organization of emotional life in the early years*. Cambridge University Press.
- Stettler, N., & Katz, L. F. (2014). Changes in parents' meta-emotion philosophy from preschool to early adolescence. *Parenting, 14*(3–4), 162–174.
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development, 25*–52.
- Von Eye, A., & Wiedermann, W. (2015). Person-Centered Analysis. *Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource*, 1–18.
- Walden, T. A., & Smith, M. C. (1997). Emotion regulation. *Motivation and Emotion*.



Watson, D., Clark, L. A., & Carey, G. (1988). Positive and negative affectivity and their relation to anxiety and depressive disorders. *Journal of Abnormal Psychology, 97*(3), Article 3.

<https://doi.org/10.1037/0021-843X.97.3.346>

Wong, M. S., McElwain, N. L., & Halberstadt, A. G. (2009). Parent, family, and child characteristics: Associations with mother- and father-reported emotion socialization practices. *Journal of Family Psychology, 23*(4), Article 4. <https://doi.org/10.1037/a0015552>

Yi, C. Y., Gentzler, A. L., Ramsey, M. A., & Root, A. E. (2016). Linking maternal socialization of positive emotions to children's behavioral problems: The moderating role of self-control. *Journal of Child and Family Studies, 25*(5), 1550–1558.

**APPENDIX**  
**FIGURES AND TABLES**

**Table 1***Descriptives for Study Variables Age 2*

	<b>Variable</b>	<b><i>M</i> (<i>SD</i>)</b>	<b>Range</b>	<b>Skew (<i>SE</i>)</b>	<b>Kurtosis (<i>SE</i>)</b>
Parent Socialization of Emotion Sub Scales (LPA indicators)	Distress Response	2.78 (0.63)	1.58-5.58	.94 (.25)	2.96 (.49)
	Punitive Reactions	2.12 (0.72)	1.00-5.33	1.15 (.25)	2.87 (.49)
	Minimization Response	2.33 (0.80)	1.00-4.83	.64 (.25)	.35 (.49)
	Expressive Encouragement	4.95 (1.01)	1.00-7.00	-.76 (.25)	1.37 (.49)
	Emotion-Focused Response	5.79 (0.61)	4.17-6.92	-.37 (.25)	-.25 (.49)
	Problem-Focused Response	5.89 (0.63)	3.42-6.92	-1.18 (.25)	2.34 (.49)
Profile Validation Variables	Negative Affectivity	3.91 (0.61)	2.57-5.31	.07 (.23)	-.80 (.46)
	Authoritative Parenting	2.51 (0.30)	1.77-3.19	-.12 (.25)	.001 (.49)
	Authoritarian Parenting	2.75 (0.32)	2.01-3.63	.15 (.25)	-.29 (.49)
	Permissive Parenting	3.09 (0.20)	2.61-3.56	-.07 (.25)	-.18 (.49)

*Note.* *M* = mean, *SD* = standard deviation, *SE* = standard error.

**Table 2***Descriptives for Study Variables Age 5*

	<b>Variable</b>	<b><i>M</i> (<i>SD</i>)</b>	<b>Range</b>	<b>Skew (<i>SE</i>)</b>	<b>Kurtosis (<i>SE</i>)</b>
Parent Socialization of Emotion Sub Scales (LPA indicators)	Distress Response	3.16 (0.87)	1.33-5.17	.14 (.22)	-.61 (.44)
	Punitive Reactions	2.17 (0.76)	1.00-4.67	.77 (.22)	.08 (.44)
	Minimization Response	4.95 (1.20)	1.83-7.00	-.34 (.22)	-.24 (.44)
	Expressive Encouragement	5.78 (0.69)	4.00-7.00	-.25 (.22)	-.54 (.44)
	Emotion-Focused Response	6.31 (0.56)	4.50-7.00	-.99 (.22)	.65 (.44)
	Problem-Focused Response	2.96 (1.01)	1.00-6.00	.38 (.22)	.17 (.44)
Profile Validation Variables	Negative Affectivity	3.38 (0.62)	1.77-5.68	.48 (.23)	1.03 (.45)
	Authoritative Parenting	3.88 (0.36)	3.03-4.76	-.08 (.22)	-.22 (.44)
	Authoritarian Parenting	1.80 (0.32)	1.23-2.73	.61 (.22)	.44 (.44)
	Permissive Parenting	1.93 (0.32)	1.23-3.03	.44 (.22)	.74 (.44)

*Note.* *M* = mean, *SD* = standard deviation, *SE* = standard error.

**Table 3***Correlations for Study Variables Age 2*

Variable	<i>n</i>	1	2	3	4	5	6	7	8	9	10
1. Distress Response	117	—									
2. Punitive Reactions	117	.12	—								
3. Minimization Response	117	.07	-.11	—							
4. Expressive Encouragement	117	.19*	-.18*	.37**	—						
5. Emotion-Focused Response	117	-.09	-.33**	.42**	.58**	—					
6. Problem-Focused Response	117	.13	.53**	-.08	.06	-.18*	—				
7. Negative Affectivity	115	.05	.17	.10	-.05	.02	.07	—			
8. Authoritative Parenting	117	-.02	-.19*	.48**	.38**	.59**	-.05	.03	—		
9. Authoritarian Parenting	117	.09	.52**	-.18*	-.19*	-.21*	.37**	.10	-.28**	—	
10. Permissive Parenting	117	.23*	.29**	-.02	.03	-.14	.22*	.05	-.21*	.29**	—

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

**Table 4***Correlations for Study Variables Age 5*

Variable	<i>n</i>	1	2	3	4	5	6	7	8	9	10
1. Distress Response	97	—									
2. Punitive Reactions	97	.51**	—								
3. Minimization Response	97	.47**	.70**	—							
4. Expressive Encouragement	97	-.06	-.32**	-.24*	—						
5. Emotion-Focused Response	97	.04	.14	.11	.18	—					
6. Problem-Focused Response	97	-.13	-.14	-.13	.39**	.62**	—				
7. Negative Affectivity	92	.07	.11	.18	-.06	.17	-.14	—			
8. Authoritative Parenting	97	.06	.26*	.34**	.11	.28**	.09	.20	—		
9. Authoritarian Parenting	97	-.10	-.03	.06	.31**	.33**	.30**	.16	.52**	—	
10. Permissive Parenting	97	-.01	.06	.21*	.00	.16	.04	.17	.28**	.43**	—

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

**Table 5***Fit Indices for Latent Profile Analyses for Parent Socialization of Emotion at 2 years*

Profiles	Number of free parameters	AIC	BIC	SABIC	BLRT <i>p</i> -value	Entropy	Smallest <i>N</i>
1	12	1735.440	1768.58	1730.65			117
2	19	1666.402	1718.88	1658.82	< .001	.864	32
3	26	1631.678	1703.49	1621.30	< .001	.837	20
4	33	1615.128	1706.28	1601.964	< .001	.840	15

*Note.* AIC = Akaike information criterion; BIC = Bayesian information criterion; SABIC = sample-adjusted Bayesian information criterion; BLRT = bootstrapped likelihood ratio test. The BLRT test compares the current model to a model with  $k - 1$  profiles.

**Table 6**

*Means, Standard Deviations, and One-Way Analyses of Variance in Parenting Style Between Age 2 PSE profiles-3 class solution*

Parenting Style	[1] Emotions and Problems Focused		[2] Diverse Strategy Use		[3] Solutions Focused		<i>F</i> (2,114)	$\eta^2$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
	<b>Authoritative</b>	4.01	.30	3.76	.36	3.65		
<b>Authoritarian</b>	1.71	.24	2.01	.38	1.71	.27	13.08***	.19
<b>Permissive</b>	1.88	.29	2.05	.36	1.83	.29	4.25*	.07

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

**Table 7**

*Means, Standard Deviations, and One-Way Analyses of Variance in Parenting Style Between Age 2 PSE profiles-4 class solution*

Parenting Style	[1] Emotions and Problems Focused		[2] Diverse Strategy Use-Low		[3] Diverse Strategy Use-High		[4] Solution Focused		<i>F</i> (3,113)	$\eta^2$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
	<b>Authoritative</b>	3.91	.34	3.66	.40	4.02	.28	3.63		
<b>Authoritarian</b>	2.03	.33	1.95	.44	1.71	.24	1.71	.26	8.24***	.18
<b>Permissive</b>	2.10	.35	2.03	.34	1.87	.29	1.83	.30	4.06**	.10

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

**Table 8**

*Fit Indices for Latent Profile Analyses for Parent Socialization of Emotion at 5 years*

Profiles	Number of free parameters	AIC	BIC	SABIC	BLRT <i>p</i> -value	Entropy	Smallest <i>N</i>
1	12	1289.090	1319.987	1282.09			97
2	19	1227.777	1276.697	1216.70	< .001	.777	33
3	26	1177.374	1244.317	1162.21	< .001	0.912	1
4	33	1156.106	1241.071	1136.86	0.01	0.925	1

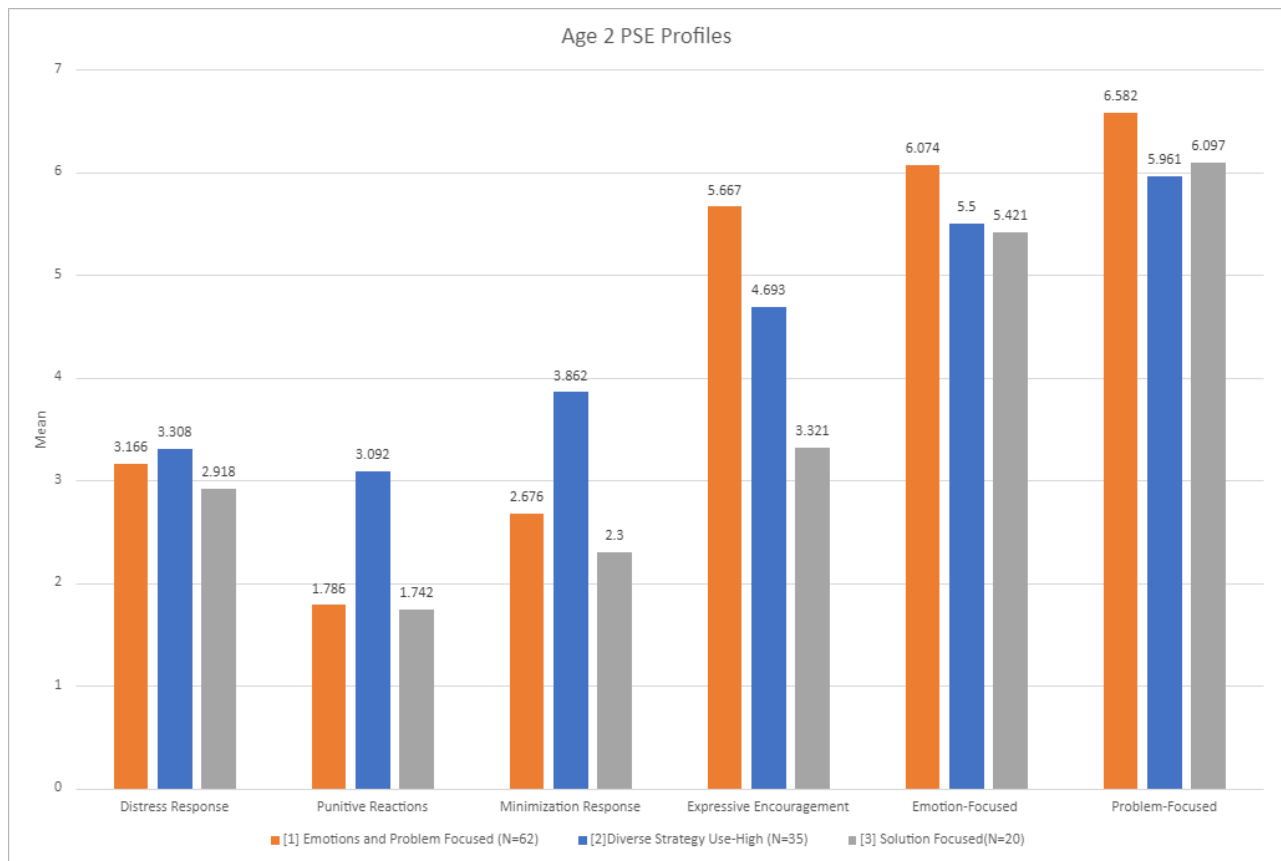
*Note.* AIC = Akaike information criterion; BIC = Bayesian information criterion; SABIC = sample-adjusted Bayesian information criterion; BLRT = bootstrapped likelihood ratio test. The BLRT test compares the current model to a model with  $k - 1$  profiles.

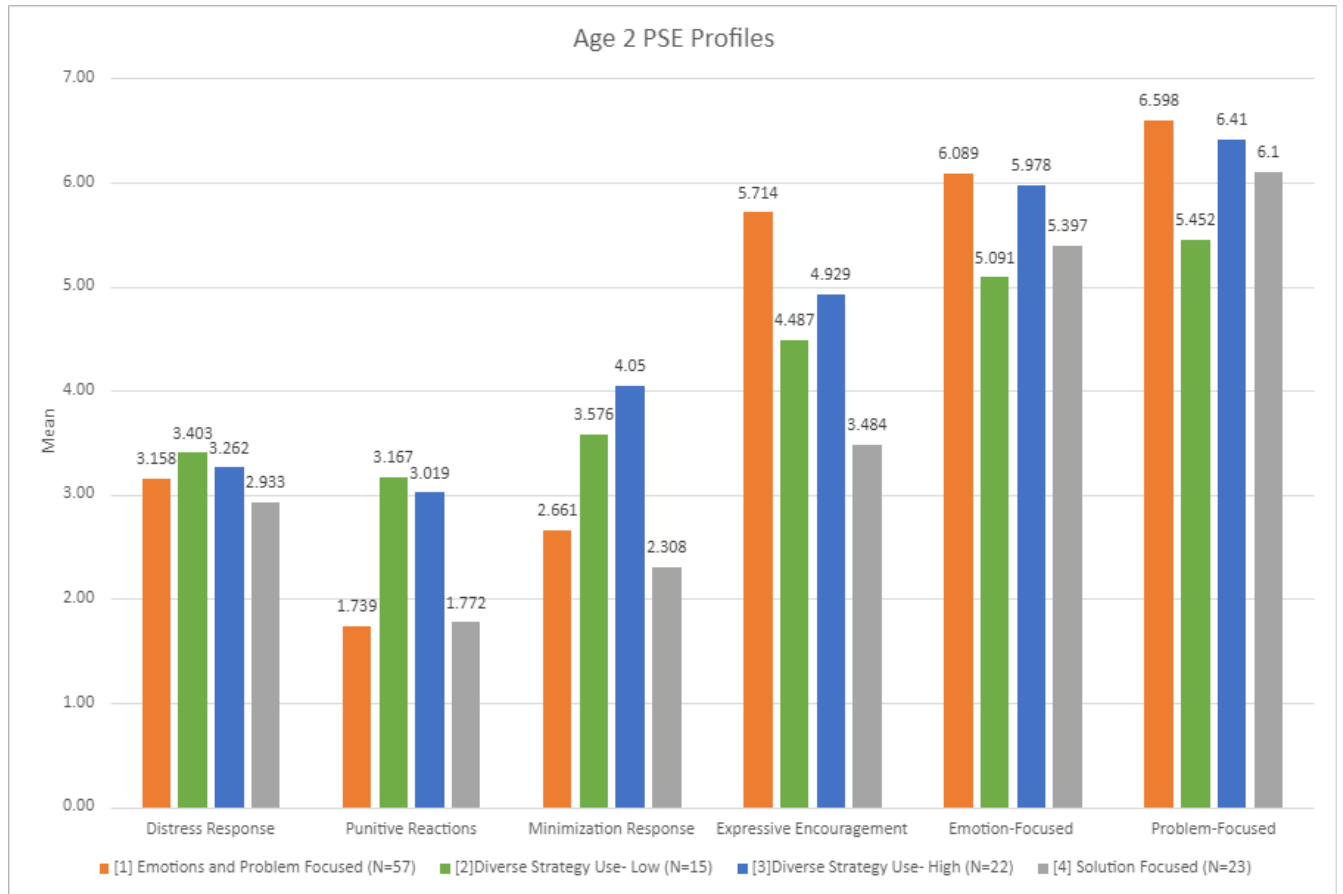
**Table 9**

*Means, Standard Deviations, and Independent Samples T-Test of Parenting Style Between Age 5 PSE profiles-2 class solution*

Parenting Style	[1] Emotions and Problem Focused		[2] Diverse Strategy Use		<i>t</i> (95)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Authoritative	2.67	.31	2.43	.26	3.97	<.001	.23
Authoritarian	2.77	.38	3.06	.28	0.48	.32	.32
Permissive	3.14	.18	3.09	.21	1.83	.04	.20



**Figure 1***Age 2 LPA Profiles of PSE-3 Profile Solution*

**Figure 2***Age 2 LPA Profiles of PSE-4 Profile Solution*

**Figure 3***Age 5 LPA Profiles of PSE*