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Parental affect profiles predict child emotion regulation and classroom adjustment in families experiencing homelessness

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Abstract

Parenting shapes the development of emotion regulation skills in early childhood, laying a key foundation for social-emotional adjustment. Unfortunately, high adversity exposure may disrupt parental emotion socialization practices and children's regulatory development. The current study used variable- and person-centered approaches to evaluate links among parental emotion expressiveness, children's observed emotion regulation, and teacher-reported adjustment among 214 4- to 6-year-old children experiencing homelessness, an indicator of high cumulative risk and acute adversity. Structured parent-child interaction tasks were recorded on site in emergency shelters over the summer and micro-socially coded for parent and child expressions of anger, positive affect, and internalizing distress. We anticipated that parental modeling of predominantly negative emotion expression would be associated with more child dysregulation during parent-child interaction and worse adjustment at school, as reported by teachers the following school year. Preliminary analyses indicated that children's observed difficulty downregulating anger was associated robustly with teacher-reported social-behavioral problems.

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Latent profile analysis was used to identify three patterns of parental emotion expression characterized by above-average expression of positive affect, internalizing distress, and anger. Parents' likelihood of membership in the elevated anger profile significantly predicted children's observed difficulty down-regulating anger and higher social-behavioral problems at school. In addition to ongoing efforts to reduce poverty-related risk, supporting adaptive anger regulation in parents and young children may be important for enhancing resilience among families experiencing homelessness and similar conditions of high cumulative risk.

KEYWORDS

cumulative risk, emotion regulation, emotion socialization, homelessness, parent-child interaction, person-centered analysis

1 | INTRODUCTION

Emotion regulation (ER), defined as adaptive modulation of emotional arousal in the service of social interaction and goal-directed behavior, is a powerful predictor of social-emotional adjustment across the lifespan (Thompson, 1994). Better ER has been linked to children's social competence and academic achievement, as well as reduced internalizing and externalizing behavior (Cole et al., 2004; Eisenberg et al., 2010; Zeman et al., 2006). Additionally, better ER has been shown to buffer effects of sociodemographic risk on children's psychosocial functioning, suggesting ER may serve as a protective factor for children experiencing poverty-related stress (Lengua et al., 2008). The broader construct of self-regulation, which encompasses top-down regulation of emotions, behaviors, and cognition, has been linked consistently to resilient adjustment among young homeless children (Herbers et al., 2011; Masten et al., 2012; Obradović, 2010) and formerly homeless school-age youth (Buckner et al., 2009). Unfortunately, children experiencing homelessness often show regulatory difficulties across emotional, behavioral, and cognitive domains (Fantuzzo et al., 2013; Samuels et al., 2010).

The early development of ER occurs in the context of parent-child relationships (Morris et al., 2007; Zeman et al., 2006). Parents communicate norms for appropriate emotional expression and regulation through a range of behaviors known as emotion socialization. Emotion socialization includes parental modeling (whether intentional or unintentional) of their own emotional responses (Eisenberg et al., 1998; Morris et al., 2007). Among predominantly White, middle-class samples, research suggests that parental expression of predominantly positive emotions and effective regulation of negative emotions promotes children's social-emotional competence (Eisenberg et al., 2010; Morris et al., 2007). However, less is known about these processes in other racial/ethnic, cultural, and sociodemographic groups, despite evidence that emotion socialization processes may be altered in the context of poverty and racism. For example, Black parents may respond more restrictively to children's emotion displays to prepare them for potential discrimination (Dunbar et al., 2017; Labela, 2018). The current study addresses gaps in the literature by assessing parental modeling of emotion expression as a predictor of child ER and social-emotional adjustment among predominantly Black families experiencing homelessness.

2 | Emotion socialization in the context of poverty-related risk

Severe poverty is associated with a wide range of risk factors known to threaten children's healthy social-emotional development (Evans et al., 2013), and families experiencing homelessness often report even higher levels of cumulative risk than low-income families who are stably housed (Masten et al., 1993; Samuels et al., 2010; Shinn & Khadduri, 2020). Nonetheless, many children experiencing homelessness function well despite adversity, motivating a search for protective and promotive factors associated with resilience. Although research indicates that high-quality parenting and effective self-regulation are associated with better social, emotional, and academic outcomes among children and youth experiencing homelessness (e.g., Herbers et al., 2020; Masten et al., 2015), little research has focused on the specific role of ER and parental emotion socialization in this high-risk population.

A limited body of research suggests that poverty-related stress may alter parental emotion socialization processes, including parent emotional expressiveness. Lower income and more poverty-related stress have been linked to greater expression of negative emotion among parents of preschoolers (Raver & Spagnola, 2003; Zalewski et al., 2012). Among mother-toddler dyads involved in Early Head Start, sociodemographic risk was related to lower positive expressiveness and maternal warmth (Brophy-Herb et al., 2012). Very few studies assess emotion socialization behaviors among families experiencing homelessness, an experience that may be expected to challenge parents' and children's regulatory capacities. One study of families in emergency housing found that parents' warmth and negativity when describing their young children predicted child affect during a subsequent interaction task, and parental negativity additionally predicted lower prosocial behavior at school (Labella et al., 2016). In another study with families of young children experiencing homelessness, parents' self-reported use of maladaptive cognitive ER strategies (e.g., rumination) was associated with higher teacher-reported internalizing symptoms in the context of low parenting quality (Palmer et al., 2020). We are not aware of any studies directly assessing parental modeling of emotion expression as a predictor of child adjustment among families in emergency housing. Further research is needed to clarify risk and protective processes related to parental socialization of adaptive ER among marginalized and disadvantaged families, including those facing the acute crisis of homelessness.

3 | Methodological issues in studying parental socialization of emotion regulation

To date, research in this area has been dominated by use of self-report measures, variable-centered analyses, and global approaches to coding emotion. In addition to expanding inclusion of families historically underrepresented in research, literature on parental socialization of child ER would benefit from greater use of observational measurement, person-centered analysis, and microsocial coding strategies.

3.1 | Observational measurement

Existing emotion socialization research relies heavily on self-report of parenting behaviors, which may be biased by motivation, mood, and memory (DeGarmo et al., 2006). In a comprehensive study of the coherence of emotion socialization, mothers' observed emotion coaching did not load with self-reported measures onto a latent factor of emotion socialization (Baker et al., 2010). Modest overlap between self-reported and observed parenting measures highlights a need for more observational studies of parental emotion socialization. A subset of studies using observational measures has found that parental emotion expression during parent-child interaction predicts child outcomes, including emotion expression, effortful control, and parent-reported behavior problems (Newland & Crnic, 2011; Robinson et al., 2009). More observational research is needed to clarify the role of parental modeling of emotion expression in predicting child ER, particularly in the context of poverty-related stress.

3.2 | Person-centered approaches

Although variable-centered approaches predominate research on emotion socialization, some researchers have used person-centered analyses to capture general patterns of parental emotion expression, situating modeling of individual emotions in their overall affective context. Using median splits, Fosco and Grych (2007) found that children whose parents reported expressing both high negative and low positive affect showed elevated self-blame. Nelson et al. (2012) used cluster analysis to identify three patterns of parent self-reported expressive style, which were associated in the theoretically expected ways with child emotional development. Although these studies provide valuable insight, these statistical approaches to person-centered analysis are limited by use of arbitrary distance metrics and lack of model fit indices. Research in this area would benefit from mixture modeling, a contemporary model-based clustering technique that allows for probabilistic classification of individual observations and evaluation of model fit (Masyn, 2013).

3.3 | Microsocial coding of emotion dynamics

Finally, research on ER may be improved by microsocial coding strategies (i.e., fine-grained behavioral ratings made repeatedly across brief intervals), which facilitate nuanced observation of emotions unfolding in real time (Cole et al., 2004). An inherent challenge in measuring ER is the difficulty in differentiating emotion *reactivity* (i.e., the intensity of emotional arousal in response to a given situation) from emotion *regulation* (i.e., the modulation of this emotional arousal in pursuit of personal goals) (Cole & Deater-Deckard, 2009). Because emotional arousal may be regulated without being visibly expressed, observational measures cannot capture these constructs directly. However, using multiple measures of emotion dynamics derived from microsocial coding has proven useful for clarifying regulatory processes related to outcomes of interest. For example, Sheeber et al. (2009) used a microsocial coding strategy to rate adolescent affect in real time across a parent-child interaction, and analyses revealed that duration rather than frequency or intensity of negative emotions distinguished healthy and depressed adolescents. Similarly, among low-income families of young children, longer duration of child anger was associated with more rapid recurrence of anger during parent-child interactions and more antisocial behavior (Snyder et al., 2003). Studies that assess multiple aspects of emotion dynamics, including affect intensity and duration, are needed to clarify predictors of children's regulatory functioning and social-emotional competence in ethnically diverse families experiencing poverty-related stress.

3.4 | The present study

The current study addresses gaps in the literature by evaluating emotional expression and regulation during observed parent-child interaction as predictors of classroom social-emotional adjustment among predominantly Black families of young children experiencing homelessness. Analyses employ data from data collections conducted in collaboration with family emergency housing shelters in the summers of 2012 and 2014. Previously published research using the 2014 data collection linked parents' self-reported ER strategies and observed parenting quality with children's internalizing symptoms (Palmer et al., 2020). The present study is the first to analyze microsocial coding of parent and child affect during structured interaction tasks.

Preliminary analyses were planned to clarify functional outcomes associated with children's observed emotion dynamics. We anticipated that greater intensity and duration of child anger and distress, as well as lower intensity and duration of positive affect, would be associated with teacher reports of more social-behavioral problems and worse ER at school. We then conducted latent profile analysis (LPA) of parental emotion expression and evaluated profile membership as predictors of children's observed ER and teacher-reported social-emotional adjustment. Although analyses were exploratory with respect to the number and form of latent profiles, we expected that some profile(s) would be distinguished by greater negative affect, and that these profile(s) would be associated with higher sociodemographic

risk and higher family adversity. We further hypothesized that high-negative affect parent profile(s) would be associated with worse child ER during parent-child interactions, more teacher-reported social-behavioral problems, and worse ER at school.

4 | METHOD

4.1 | Participants

Participants were 214 primary caregivers and their 4- to 6-year-old children (54.2% male, $M_{age} = 5.8$ years, $SD = .6$; 62.6% Black/African American, 23.8% Multiracial, 5.1% American Indian, 3.7% White, 4.6% other). Participants were recruited from two urban emergency shelters in a Midwestern city. One shelter (hereafter called "private") was funded entirely by donations and assigned families to apartment-style housing. The other (hereafter called "public") was funded by a mixture of public funds and private donations and allocated families primarily to single rooms. Families were recruited to participate in two protocols in the summers of 2012 and 2014, with 107 eligible families participating each year. Families were eligible if they had a child entering kindergarten or first grade and lived in shelter for at least 3 days (to allow for acclimation). Only one child per family participated. Exclusion criteria were insufficient English to complete tasks or severe developmental delay interfering with study completion. Families were recruited through fliers in mailboxes and informational tables set up during mealtimes.

The current study included all dyads with affect codes from parent-child interaction ($n = 203$). Of 214 participating families, five did not complete interaction tasks and six were excluded because video-recordings did not yield codable affect data (e.g., faces offscreen for both interaction tasks).

4.2 | Procedure

The University of Minnesota IRB approved all study procedures. Parents provided informed consent and children provided verbal assent. Study sessions took place on site in dedicated research rooms. Children participated in an assessment of school readiness skills while parents were interviewed about demographics, child behavior, and stressful life events. Following individual sessions, parents and children participated in a structured sequence of video-recorded interaction tasks, which were later coded for parent and child affect. Parents received an honorarium and children received a small toy. With parent permission, teachers were later contacted to report on children's social-emotional adjustment, after children had been in school for at least 2 months.

4.3 | Measures

4.3.1 | Parent and child affect

Parent-child interaction tasks were developed by the Parent Management Training: Oregon Model (PMTO) research team, adapted for use with homeless and highly mobile families (DeGarmo et al., 2004; Gewirtz et al., 2009), and abridged to decrease participant burden. Tasks were designed to elicit mutual enjoyment, limit setting, communication, cooperation, and competitive play (DeGarmo et al., 2004). Two tasks (problem-solving discussion and marble maze game) were selected for the current study because they were available across both protocols and expected to elicit a range of emotions. During the problem-solving discussion, parents were asked to lead their child in a discussion of a topic they had previously identified from a list of common parent-child conflicts as the biggest problem in their relationship with their child. They were asked to discuss the problem for 5 min and try to come to a solution.

During the marble maze game, parents and children were asked to work together to guide a marble through a maze by each turning knobs on their side of the maze board. The problem-solving discussion was expected to elicit distress and anger, whereas the marble maze was expected to elicit positive affect.

Parent and child affect were coded using a microsocial coding system adapted from prior research (Cui et al., 2015; Morris et al., 2011). Independent coding teams rated intensity of one affect (anger, internalizing distress, positive affect) on a five-point scale from 1–none to 5–very strong. Different coders were responsible for rating affect in parents and children to minimize bias. Intensity of each affect was coded for each dyad partner in 10-s intervals across the two interaction tasks (5–6 min per task; 10–12 min total). Individual intervals were coded as missing if there was no evidence of a given affect from a given dyad member and the individual was not codable at least half the interval (e.g., moved offscreen). Affect indices were calculated if at least 20 intervals (3.33 min) in a given task were codable, to ensure that composites were drawn from relatively stable estimates. The number of participants meeting this threshold ranged from 184 to 197 for the discussion, and from 191 to 197 for the game.

The first author served as anchor coder for all affect coding teams. Ten undergraduate, graduate, and postbaccalaureate coders achieved good reliability with the anchor coder [*Intraclass correlation (ICC)* $\geq .75$] on practice tapes before coding for the present study. Twenty percent of videotapes were randomly selected for double coding. Discrepancies were discussed and resolved by consensus at weekly reliability meetings. When available, consensus codes were used for analyses. Inter-rater reliability of affect codes ranged from moderate to good (child *ICC* = .67 for anger, .77 for distress, .89 for positive affect; parent *ICC* = .70 for anger and distress, *ICC* = .86 for positive).

Parent affect

Mean affect intensity scores were selected for inclusion in LPA because of their relatively normal distribution and summary-level information about overall modeling of emotion expression. Mean intensity ratings were derived separately by task to capture the differential demands of a conflict discussion versus collaborative game.

Child affect

Two distinct measures were derived for each child affect to capture different aspects of ER: maximum intensity and maximum duration. Maximum intensity was defined as the highest affect rating (from 1 to 5), whereas maximum duration was indexed by the highest number of consecutive intervals with *clear*, *strong*, or *very strong* affect (intensity rating ≥ 3), divided by the number of codable intervals. Intensity and duration variables were calculated for each task separately as well as the interaction overall.

4.3.2 | Sociodemographic risk

In both protocols, parents reported sociodemographic information, including education, employment status, and history of homelessness. Ten binary risk factors previously identified as relevant to disadvantaged families (Evans et al., 2013; Obradović et al., 2012) were summed to create a cumulative sociodemographic risk score (Labella et al., 2019). Risk factors included the following: single parent; four or more children in the household; parent under 18 at birth of first child; primary caregiver has less than high school education; primary caregiver unemployed; family unable to afford rent; lived in substandard housing; lived in unsafe neighborhood; target child has lived at five or more addresses; and primary caregiver homeless three or more times.

4.3.3 | Family adversity

In both protocols, parents reported on their child's lifetime experience of stressful life events using the Lifetime Events Questionnaire (Masten et al., 1993). Consistent with previous research (Labella et al., 2019), ten items were selected

to reflect adverse experiences within the family unit (death of parent; death of sibling; inter-parental conflict; parental separation or divorce; parental substance abuse problem; parental mental illness; parental physical illness; parental incarceration; foster care; prolonged parent-child separation). Endorsed items were summed to create a cumulative family adversity score.

4.3.4 | Child social-emotional adjustment in the classroom

In both protocols, teachers reported on children's social-emotional adjustment using standardized questionnaires.

Emotion regulation

Teachers completed the emotion regulation subscale of the Emotion Regulation Checklist (ERC), a valid and reliable proxy-report measure of child emotion regulation (Shields & Cicchetti, 1997). The emotion regulation subscale consists of eight items rated on a 4-point scale reflecting the degree to which the child behaves appropriately in the context of strong emotion ($\alpha = .80$).

Social-behavioral problems

Teachers completed the conduct problems, emotional symptoms, hyperactivity, and peer problems subscales of the Strengths and Difficulties Questionnaire (SDQ), a valid and reliable measure of children's social-behavioral problems (Goodman, 1997). Each subscale consists of five items rated on a 3-point scale from *Not true* to *Certainly true*. Item scores are summed to form subscale scores, which are summed to form a total problems composite. The total problems score, reflecting all teacher-reported social-behavioral problems, is the primary focus of this study ($\alpha = .87$), with planned follow-up testing by individual problem domains to clarify significant findings.

4.3.5 | Covariates

Parents provided information on age and sex of parents and children. Protocol (2012 or 2014) and shelter type (public or private) were included as additional covariates to evaluate potential contextual influences on parent and child behavior.

4.4 | Plan for analysis

Preliminary analyses assessed associations linking child affect variables (maximum intensity and duration) with teacher-reported social-emotional adjustment, with the goal of clarifying the functional significance of different aspects of child ER and identifying variables of particular relevance for analyses linking parental profiles with child emotion dynamics. Next, mean intensity ratings for each parental affect during each task were used as indicators for the LPA, conducted in Mplus, Version 8 (Muthén & Muthén, 1998–2017). We fit series of k -class models for each of four possible variance/covariance structures. Within each variance-covariance structure, models were compared to each other and a fully saturated model, providing a benchmark of absolute fit. Models also were evaluated on several indicators of relative fit: Likelihood Ratio Test, Akaike information criterion, Bayesian information criterion, consistent Akaike information criterion, approximate weight of evidence criterion, Bayes Factor, and approximate correct model probability (Masyn, 2013).

After identifying the best-fitting candidate model from each variance/covariance structure, solutions were evaluated further for theoretical interpretability and classification diagnostics, including entropy, average posterior class

probability, odds of correct classification ratio, and modal class assignment proportion. After a final k -class solution was identified, associations between latent profiles and auxiliary observed variables were explored using the modified Bolck-Croon-Hagenaars (BCH) method (Asparouhov & Muthen, 2014). This method addresses limitations of analysis using modal class assignments by incorporating weights based on classification uncertainty. The BCH method was used to investigate profile differences in sociodemographics, observed child ER, and children's social-emotional adjustment at school.

4.4.1 | Missing data

The proportion of missing data from the shelter session was minimal, ranging from 0% (sociodemographic variables) to 6.5% (child affect). About 80% of children were located successfully in schools (80.3% located across 50 schools in 2012, 78.5% located across 47 schools in 2014) and the vast majority of identified teachers completed questionnaires (96.5% in 2012, 94.0% in 2014). Overall, teacher data were available for 75.7% of the sample. This rate of missingness is typical for studies following highly mobile families, even with helpful information from families about best ways to stay in touch. Little's test suggested that data were missing completely at random ($\chi^2(126, N = 214) = 88.58, p = 1.00$; Little, 1988), and full information maximum likelihood (FIML) estimation was used to generate unbiased parameter estimates (Peng et al., 2006).

5 | RESULTS

5.1 | Preliminary analyses

Preliminary analyses were conducted to clarify the functional significance of child affect variables prior to linking them with parental affect profiles. Observed maximum intensity and maximum duration were correlated moderately to strongly within affect ($r_s = .43-.68$, all $p_s < .001$; Table 1). Teacher-reported total problems were related significantly to higher anger intensity, longer anger duration, and higher sociodemographic risk. Teacher reports of adaptive ER were associated strongly with lower social-behavioral problems but were not related significantly to observed child affect.

Preliminary findings supported further investigation of associations linking measures of observed child anger expression with teacher-reported social-behavioral problems. Multiple regression models were specified using maximum likelihood estimation with robust standard errors, entering anger intensity and duration together on the first step, followed by covariates showing bivariate associations with the predictor or outcome variables (Table 2). When entered together, anger duration but not intensity significantly predicted teacher-reported total problems. This association was robust to covariates in Step 2 ($\beta = .34, p < .01$); teacher-reported social-behavioral problems additionally were related to higher sociodemographic risk ($\beta = .16, p = .05$). Planned follow up analyses revealed that, controlling for covariates, anger duration was related positively to each teacher-reported problem domain (peer problems $\beta = .36, p < .001$; hyperactivity $\beta = .22, p < .05$; emotional symptoms $\beta = .32, p = .06$; conduct problems $\beta = .18, p = .08$). Although significance judgments varied, regression coefficients were not significantly different from each other (maximum $z = 1.28, p = .20$). Finally, follow-up analyses were conducted regressing total teacher-reported social-behavioral problems on task-specific variables. Child anger duration during the conflict discussion (but not the game) was related significantly to social-behavioral problems at school.

Given results from preliminary analyses, maximum duration (but not intensity) variables were selected for inclusion in analyses linking child emotion dynamics with parent affect profiles, with particular interest in predictors of child anger duration during the discussion.

TABLE 1 Descriptive statistics and bivariate associations among child affect intensity and duration, social-emotional adjustment, and sociodemographic covariates

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child distress intensity	-													
2. Child distress duration	.43***	-												
3. Child anger intensity	.19*	.16*	-											
4. Child anger duration	.30***	.24**	.68***	-										
5. Child positive intensity	.04	.03	.14†	.03	-									
6. Child positive duration	.09	.06	-.00	-.11	.50***	-								
7. Social-behavioral problems	-.03	.02	.19*	.31***	.11	-.10	-							
8. Emotion regulation	-.03	.02	-.14†	-.11	-.06	.06	-.56***	-						
9. Child sex (Male) ^a	-.02	.02	.14†	.02	-.00	.07	.12	-.20*	-					
10. Child age	-.10	.03	-.13†	-.25**	.01	.07	-.12	.04	-.00	-				
11. Sociodemographic risk	.01	.07	.09	-.03	-.08	-.04	.17*	-.08	.15*	-.04	-			
12. Family adversity	.14†	.06	.03	.12	.05	-.01	.09	-.11	.04	-.00	.22**	-		
13. Shelter (Public) ^a	.06	.06	.22**	.13†	.12	.06	.14†	-.18*	.05	.04	.06	.18*	-	
14. Protocol (2014) ^a	-.16*	-.12	.06	.00	-.01	.03	-.01	.10	-.03	-.12†	-.11	.15*	.13	-
Mean (% if binary)	3.6	.2	2.8	.0	3.1	.1	10.8	22.6	56%	5.8	4.1	2.1	68%	51%
Standard Deviation	.6	.1	.7	.0	1.1	.1	7.8	4.0	56%	.6	1.6	1.7	-	-
Range	3-5	.01-.52	2-5	.00-.22	1-5	.00-.45	0-31	13-31	-	4-7	1-9	0-7	-	-

N = 203.

†p < .10.

*p < .05.

**p < .01.

***p < .001.

^aReported correlations are point-biserial correlations.

TABLE 2 Child anger intensity and duration as predictors of total teacher-reported social-behavioral problems

	β	95% CI (β)		R^2
		Lower bound	Upper bound	
1. Step one				
Child anger intensity	-.03	-.23	.18	.10
Child anger duration	.31**	.09	.53	
2. Step two				
Child anger intensity	-.04	-.25	.17	.16*
Child anger duration	.34**	.12	.56	
Child distress intensity	-.12	-.29	.06	
Child distress duration	-.00	-.17	.17	
Child age	-.04	-.20	.12	
Shelter (Public)	.08	-.06	.23	
Sociodemographic risk	.17*	>.00	.33	

Abbreviation: SDQ, Strengths and Difficulties Questionnaire.

† $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

5.2 | Latent profile analysis

Descriptive statistics and bivariate correlations linking observed parental affect to demographic covariates and adjustment outcomes are presented in Table 3. Parent affect indicators were used to fit of a series of latent profile models with each of four variance/covariance structures (Table 4): diagonal/invariant (indicator covariance set to zero, indicator variance constrained to be equal across classes), diagonal/class-varying indicator covariance set to zero, indicator variance allowed to vary across classes), non-diagonal/class-invariant (indicators allowed to covary, variance constrained to be equal), and non-diagonal/class-varying (indicators allowed to covary, variance allowed to vary). Based on information criteria and comparison statistics, best-fitting candidate models represented two-class (diagonal/class-varying; non-diagonal/class-varying) and three-class solutions (diagonal-class invariant). No candidate model was advanced from the non-diagonal/class-invariant structure, as all models failed to converge on a stable solution.

The three candidate models were evaluated further based on relative fit, theoretical considerations, and classification diagnostics (Table 5). The two-class non-diagonal/class-varying solution was eliminated from consideration because it showed the poorest fit and required the largest number of parameters to be estimated ($npar = 55$). The remaining two candidate models had similar model complexity ($npar = 26$ vs. 25) and both fit the data well. The two-class diagonal/class-varying solution had lower information criteria and a higher Bayes Factor, suggesting slightly better relative fit; however, overall entropy was higher for the three-class diagonal/class-invariant solution, indicating higher classification accuracy. Exploratory analyses indicated the two-class diagonal/class-varying solution was incompatible with the BCH method, as low entropy introduced negative weights. Because our analysis plan required well-separated classes, and because we had no theoretical basis for predicting different variances across classes, the three-class diagonal/class-invariant solution was selected as the final model.

The final three-class model is presented in Table 6. The first profile (estimated class proportion 8.7%) showed heightened parental anger expression primarily during the discussion, followed by another modestly sized profile (estimated class proportion 10.8%) characterized by heightened parental distress. The largest profile (estimated class

TABLE 3 Descriptive statistics and bivariate associations linking parent affect with child affect, social-emotional adjustment, and covariates

	1	2	3	4	5	6
1. Mean parent distress: discussion	–					
2. Mean parent distress: game	.46***	–				
3. Mean parent anger: discussion	–.13 [†]	–.05	–			
4. Mean parent anger: game	.03	.18*	.26**	–		
5. Mean parent positive: discussion	–.12*	.04	–.18**	–.08	–	
6. Mean parent positive: game	–.11 [†]	–.14**	–.09	–.02	.43***	–
7. Child distress duration	.03	.06	.13	.04	–.08	–.02
8. Child anger duration	–.06	.02	.45**	.16 [†]	–.13*	–.21**
9. Child positive duration	–.01	–.01	.02	.00	.13	.33***
10. Social-behavioral problems	–.18**	.06	–.04	.00	.00	–.14
11. Emotion regulation	–.01	–.01	–.14	–.04	.02	–.16 [†]
12. Child sex (Male) ^a	.02	–.02	.08	.08	.03	–.02
13. Child age	.04	.11 [†]	–.25***	–.14*	–.14*	.07
14. Sociodemographic risk	.10	–.04	–.07	.03	.00	.04
15. Family adversity	–.12**	–.06	–.02	.04	–.04	–.03
16. Shelter (Public) ^a	–.06	.03	–.01	.18**	.03	–.12
17. Protocol (2014) ^a	–.21***	.03	–.11	–.24**	–.02	.11
Mean	1.9	1.5	1.4	1.3	1.8	2.2
Standard Deviation	.4	.3	.7	.3	.2	.5
Range	1.08–3.93	1.03–2.97	1.00–3.26	1.00–1.95	1.00–3.66	1.00–3.91

N = 203.

[†]*p* < .10.

**p* < .05.

***p* < .01.

****p* < .001.

^aReported correlations are point-biserial correlations.

proportion 81.4%) was distinguished by higher parental positive affect across tasks. Profiles were termed Parental Anger, Parental Distress, and Parental Positive, respectively.

5.3 | Associations with sociodemographic covariates and child outcomes

BCH weights generated from the three-class solution were used in secondary models relating affect profile membership to auxiliary variables. A series of models were estimated to identify potential sociodemographic predictors of affect profile membership: protocol, shelter, child age, child sex, parent age, parent sex, sociodemographic risk, and family adversity. For each model, a Wald statistic was computed as an omnibus test of overall association between the covariate and the latent class variable, with significant effects followed by pairwise comparisons of class-specific means. Unexpectedly, affect profile membership was not related significantly to any sociodemographic variables, including family adversity and sociodemographic risk.

TABLE 4 Fit indices for latent profile analyses of parent affective expression

Model	LL	npar	AIC	BIC	CAIC	AWE	LRTS χ^2 (k, k + 1)	LMR-LRT p-value	Bootstrap p-value	BF(K, K + 1)	cmP(K)	BF(K, M0)
<i>Diagonal class-invariant</i>												
1-class solution	-466.8	12	957.5	997.3	1009.3	1097.2	69.1	.40	<.001	.00	.00	.00
2-class solution	-432.2	19	902.5	965.5	984.5	1123.5	48.4	.16	<.001	.00	.00	.00
3-class solution	-393.0	26	838.0	924.3	950.3	1140.6	-	-	-	-	1.0	4230.4
Saturated model	-398.7	27	851.4	941.0	968.0	1165.6	-	-	-	-	-	-
<i>Diagonal class-varying</i>												
1-class solution	-466.8	12	957.5	997.3	1009.3	1097.2	183.8	<.001	<.001	.00	.0	.0
2-class solution	-374.8	25	799.7	882.6	907.6	1090.6	-	-	-	-	1.0	4.7*10¹²
3-class solution	-	-	-	-	-	-	-	-	-	-	-	-
4-class solution	-316.2	51	734.1	903.4	954.4	1327.6	-	-	-	-	.0	1.5*10⁸
Saturated model	-398.7	27	851.4	941.0	968.0	1165.6	-	-	-	-	-	-
<i>Non-diagonal class-invariant</i>												
1-class solution/Saturated	-398.7	27	851.4	941.0	968.0	1165.6	-	-	-	-	-	-
<i>Non-diagonal class-varying</i>												
1-class solution/Saturated	-398.7	27	851.4	941.0	968.0	1165.6	156.1	.0012	<.001	.03	.03	1.0
2-class solution	-320.7	55	751.3	933.8	988.8	1391.3	-	-	-	-	.97	36.2

LL = loglikelihood; n = number of parameters; AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; CAIC = Consistent Akaike Information Criterion; AWE = Approximate Weight of Evidence Criterion; LRTS = Likelihood Ratio Test Statistic; LMR-LRT p-value = adjusted Lo-Mendell-Rubin Likelihood Ratio Test (H_0 comparing K classes vs. K + 1 classes); BF(K, K+1) = Bayes Factor ratio of Models K and K+1; cmP(K) = correct model probability; BF(K, M0) = Bayes Factor ratio of Model K and the Mean-Variance Saturated Model. Bolded values correspond to the best fit indicator for a given variance/covariance structure. Columns with no bolded values indicate that index was not reached prior to the maximum class extraction supported by the data.

TABLE 5 Classification diagnostics for three candidate models

Solution	Class	Estimated k-class proportion	mcaP _k	AvePP _k	OCC _k	Entropy
Diagonal, class-invariant 3-class	Profile 1	.09	.08	.91	103.6	.86
	Profile 2	.12	.11	.88	53.8	
	Profile 3	.79	.81	.95	5.1	
Diagonal, class-varying 2-class	Profile 1	.69	.72	.92	5.3	.69
	Profile 2	.31	.28	.89	18.1	
Non-diagonal, class-varying 2-class	Profile 1	.77	.78	.95	6.1	.80
	Profile 2	.23	.22	.89	26.5	

mcaP_k = modal class assignment proportion for class k (goal = comparable to estimated k-class proportion).

AvePP_k = Average posterior class probability (goal = .70+). OCC_k = odds of correct classification ratio for class k (goal = 5.0+).

TABLE 6 Mean levels of parent affect by profile

Profile	Parent distress discussion	Parent distress game	Parent anger discussion	Parent anger game	Parent positive discussion	Parent positive game
Profile 1	1.8 (SD .1)	1.5 (SD .1)	2.1 (SD .1)	1.3 (SD .0)	1.4 (SD .2)	1.7 (SD .3)
Profile 2	2.6 (SD .1)	1.9 (SD .1)	1.4 (SD .1)	1.3 (SD .0)	1.4 (SD .2)	1.7 (SD .3)
Profile 3	1.8 (SD .1)	1.5 (SD .1)	1.3 (SD .1)	1.3 (SD .0)	1.9 (SD .2)	2.3 (SD .3)

We then tested associations between parental affect profiles and maximum duration of each child affect. Parental affect profiles were associated differentially with maximum duration of child anger (Wald = 10.28, $p = .006$) but not distress (Wald = 2.22, $p = .33$) or positive affect (Wald = 2.43, $p = .30$). Pairwise comparisons indicated that the Parental Anger profile was associated with longer child anger duration ($M = .07$) compared to both Parental Distress ($M = .02$, $p = .002$) and Parental Positive ($M = .02$, $p = .001$) profiles, which did not differ significantly from each other. Task-specific follow-up analyses indicated that parental affect profiles differed on child anger duration during the discussion (Wald = 12.50, $p = .002$) but not the game (Wald = 4.27, $p = .12$).

Parental affect profiles then were evaluated as predictors of children's teacher-reported social-emotional adjustment. Parental affect profiles were associated significantly with teacher reports of social-behavioral problems (Wald = 51.07, $p < .001$) but not ER (Wald = 2.83, $p = .24$). Pairwise comparisons indicated that the Parental Anger profile was associated with more teacher-reported social-behavioral problems ($M = 16.79$) than the Parental Distress ($M = 9.76$, $p = .024$) and Parental Positive ($M = 10.42$, $p = .007$) profiles, which did not differ significantly from each other. Planned follow-up analyses by problem domain indicated that parental affect profiles were associated significantly with peer problems (Wald = 7.85, $p = .02$) and marginally with conduct problems (Wald = 5.30, $p = .07$), again such that parents in the Parental Anger profile had children with higher teacher-reported problems. Parental affect profiles were not related significantly to teacher-reported hyperactivity (Wald = 1.70, $p = .43$) or emotional symptoms (Wald = 2.53, $p = .28$).

6 | DISCUSSION

The current study extends existing research on emotion socialization by investigating associations among observed patterns of parental emotion expression, child ER, and social-emotional adjustment in a very high-risk sample of young

children experiencing homelessness. We anticipated that parental affect profiles would be associated with sociodemographic risk and family adversity, as well as children's observed ER and social-emotional adjustment at school. Results provided partial support for hypotheses. Preliminary analyses revealed that children's observed difficulty downregulating anger was linked uniquely to more teacher-reported social-behavioral problems (but not teacher-reported ER), controlling for covariates. This association was driven by difficulty downregulating anger during the emotionally evocative problem-solving discussion, rather than playing a game, highlighting the relevance of anger regulation when the dyadic system is under stress. This finding may reflect in part greater difficulty downregulating anger observed during the discussion compared to the game (maximum duration $M = 1.48$, $SD = 2.20$ for discussion; $M = 0.72$, $SD = 0.96$ for game, $t(182) = 5.11$, $p < .001$).

Planned follow-up analyses revealed that observed child anger duration predicted more severe teacher-rated problems across domains, whereas variables indexing maximum intensity, internalizing distress, and positive affect were not associated significantly with classroom adjustment. Overall, observed anger duration emerged as a robust predictor of teacher-reported social-behavioral problems in young homeless children across multiple problem domains, suggesting that difficulty downregulating anger may be an important target for intervention. Notably, sociodemographic risk robustly predicted social-behavioral problems controlling for child anger expression, highlighting the importance of public policies aimed at reducing family poverty.

Focal analyses using mixture modeling identified three parental affect profiles, characterized by above-average expression of anger (especially during a conflict discussion), distress, and positive affect. In contrast to prior research using other analytic techniques (Fosco & Grych, 2007; Nelson et al., 2012), no profiles reflected differential combinations of discrete affects (e.g., high negative/low positive) or low levels of all affects. This finding illuminates the structure of affective processes in this population while suggesting that variable-centered analyses may be particularly informative in this case. Importantly, most parents showed a preponderance of positive affect across interaction tasks, reflecting high levels of resilient parenting in the context of substantial cumulative psychosocial risk and an acute crisis of homelessness. Contrary to hypotheses, parent affect profiles were not associated with demographic or contextual covariates, including family adversity and sociodemographic risk. Future research should investigate other predictors, such as parental psychopathology, perceived stress, and/or ER strategy use, as predictors of parents' modeling of emotion expression.

Using the modified BCH method to account for classification uncertainty, Parent Anger profile membership was linked to children's observed difficulty down-regulating anger, particularly during the problem-solving discussion. Parent Anger profile membership was also associated with higher child social-behavioral problems (but not worse ER) by teacher report. These results echo findings from prior studies illustrating links between parent affect, child affect, and children's social-emotional adjustment (e.g., Newland & Crnic, 2011). Planned follow-up testing indicated that Parent Anger profile membership predicted significantly more teacher-rated peer problems and marginally more teacher-rated conduct problems. In contrast to findings for observed child anger duration, the Parent Anger profile was not associated significantly with teacher-rated hyperactivity, suggesting that pathways from family risk to hyperactivity may not be mediated through parental affect. Future research is needed to further illuminate potential mechanisms for the link between sociodemographic risk and child adjustment.

Unexpectedly, neither parent nor child affective variables were associated significantly with teacher-reported ER. Of note, only the emotion regulation subscale of the ERC was administered across both data collections and used in current analyses. The other subscale taps emotional lability/negativity, which may be more relevant to observed difficulty with anger regulation during parent-child interactions.

6.1 | Strengths and limitations

The current study has notable strengths, extending research on emotion socialization and regulation to an understudied, predominantly Black population of children at very high risk. Research with families in emergency housing

offers unique insight into resilience processes in the context of acute adversity, with potential to inform policy and practice. The study was strengthened by multi-method measurement strategies, including observational measures of affect and teacher reports of child adjustment. Additionally, microsocial coding was used to capture multiple aspects of child emotion dynamics, clarifying the specific regulatory processes conferring risk with the goal of guiding future interventions. Analyses synthesized multiple aspects of parental emotion expression into latent profiles and used an appropriate weighting strategy to take classification uncertainty into account when relating parental affect profiles to child outcomes, increasing confidence in results.

Limitations include the use of summary measures of parent and child affect, which are not suited to examining dynamic contingencies over time. Recruitment was limited to homeless families staying in emergency housing, and generalizability would be strengthened by replicating findings with unsheltered homeless families (e.g., those living in cars or staying with friends) and demographically similar families who are stably housed. Additionally, including non-English-speaking parents would enhance generalizability to other cultural and language groups excluded from the current sample (e.g., Latinx and Hmong families). Affect coders, who identified as White, Multiracial, and Asian, did not match the racial/ethnic composition of participants being coded, raising the possibility of bias. Affect during brief structured tasks may not be representative of day-to-day emotional expression, although associations with classroom outcomes suggests that the tasks provide meaningful insight into emotion socialization and regulation. Finally, teacher-reported outcome data were not available for 24% of the sample, due to the practical challenges of locating highly mobile children in schools; however, the response rate of teachers was extremely high (95%) for those who were located.

6.2 | Implications and future directions

Overall, results clarify the role of emotion socialization and regulation in predicting social-emotional adjustment among young children experiencing homelessness. High levels of parental anger expression during a mildly stressful conflict discussion predicted children's concurrent difficulty downregulating anger, as well as subsequent teacher-reported social-behavioral problems at school. Parents showing high levels of anger may benefit from interventions focused on adaptive ER strategies, as well as from instrumental and emotional support to mitigate effects of accumulating stressors that may be contributing to negative emotions. Importantly, more negative emotional expressiveness may represent a proximal adaptation to a stressful environment, for example, an effort to prepare children to experience discrimination (Dunbar et al., 2017; McLoyd, 1990). Further research is needed to clarify the role of sociocultural context and functional outcomes of parental emotion modeling across cultural groups.

The salience of anger duration in predicting classroom outcomes suggests that this may be a promising target for resilience-promoting interventions. Group interventions may be helpful in enhancing parental socialization of child anger regulation, in addition to supporting parents' own ER skills. Interventions targeting child regulation may be particularly impactful during early childhood, a period of rapid brain development and heightened neural plasticity (Zelazo, 2020). Furthermore, past prevention programs have improved children's outcomes effectively by changing parenting behavior, confirming that parenting is both malleable and influential. One relevant program has successfully improved social-emotional functioning in Australian preschoolers by coaching parents to support children's efforts to express and regulate emotions (Havighurst et al., 2010). Importantly, group-based parenting interventions have shown feasibility and acceptability when delivered in shelter settings (Haskett et al., 2018; Sheller et al., 2018).

Persistent associations between sociodemographic risk and social-behavioral problems highlight the importance of strategies to reduce socioeconomic risk in order to promote child and family adaptation, complementing interventions that build families' adaptive capacity. Public policies aimed at poverty reduction may help to reduce children's behavioral dysregulation and initiate positive cascades toward social-emotional health (Masten & Labelle, 2016). A multi-pronged intervention approach that combines poverty relief measures with support for adaptive anger regulation in both parents and children may help families thrive in the face of homelessness.

Future research is needed to extend these findings to larger, more diverse samples, incorporating additional adaptive outcomes (e.g., emotional lability/negativity, teacher-child relationships) and following children over longer time periods. Additionally, given racial, ethnic, and cultural variations in emotion socialization (Dunbar et al., 2017; Labella, 2018), it is important for further studies to incorporate measures of sociocultural influences on norms for emotion expression, regulation strategies, and socialization goals. Additionally, research that incorporates physiological data would provide more comprehensive insight into self-regulation processes and may help to identify biological mechanisms linking environmental challenge and child adjustment. Ongoing research clarifying associations between parent and child ER and subsequent school adjustment, as well as sociocultural context and potential biological pathways, may further specify targets for interventions promoting resilience among vulnerable children and families. The current study suggests new avenues for research and practice, highlighting processes of parent and child affect regulation as promising targets for further research and intervention studies designed to enhance resilience in families at high psychosocial risk.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author.

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REFERENCES

- Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, 21(3), 329–341. <https://doi.org/10.1080/10705511.2014.915181>
- Baker, J. K., Fenning, R. M., & Crnic, K. A. (2010). Emotion socialization by mothers and fathers: Coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development*, 20(2), 412–430. <https://doi.org/10.1111/j.1467-9507.2010.00585.x>
- Brophy-Herb, H. E., Stansbury, K., Bocknek, E., & Horodynski, M. A. (2012). Modeling maternal emotion-related socialization behaviors in a low-income sample: Relations with toddlers' self-regulation. *Early Childhood Research Quarterly*, 27(3), 352–364. <https://doi.org/10.1016/j.ecresq.2011.11.005>
- Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2009). Self-regulation and its relation to adaptive functioning in low-income youths. *American Journal of Orthopsychiatry*, 79(1), 19–30. <https://doi.org/10.1037/a0014796>
- Cole, P. M., & Deater-Deckard, K. (2009). Emotion regulation, risk, and psychopathology. *Journal of Child Psychology and Psychiatry*, 50(11), 1327–1330. <https://doi.org/10.1111/j.1469-7610.2009.02180.x>
- Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development*, 75(2), 317–333. <https://doi.org/10.1111/j.1467-8624.2004.00673.x>
- Cui, L., Morris, A. S., Harrist, A. W., Larzelere, R. E., & Criss, M. M. (2015). Dynamic changes in parent affect and adolescent cardiac vagal regulation: A real-time analysis. *Journal of Family Psychology*, 29(2), 180–190. <https://doi.org/10.1037/fam0000067>

- DeGarmo, D. S., Patterson, G. R., & Forgatch, M. S. (2004). How do outcomes in a specified parent training intervention maintain or wane over time? *Prevention Science*, 5(2), 73–89. <https://doi.org/10.1023/B:PREV.0000023078.30191.e0>
- DeGarmo, D. S., Reid, J. B., & Knutson, J. F. (2006). Direct laboratory observations and analog measures in research definitions of child maltreatment. In: M. M. Feerick, J. F. Knutson, P. K. Trickett, & S. M. Flanzer (Eds.), *Child abuse and neglect: Definitions, classifications, and a framework for research*, pp. 293–328. Brookes.
- Dunbar, A. S., Leerkes, E. M., Coard, S. I., Supple, A. J., & Calkins, S. (2017). An integrative model of parental racial/ethnic and emotion socialization and links to social-emotional development among African American families. *Child Development Perspectives*, 11(1), 16–22. <https://doi.org/10.1111/cdep.12218>
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, 9(4), 241–273. https://doi.org/10.1207/s15327965pli0904_1
- Eisenberg, N., Spinrad, T. L., & Eggum, N. D. (2010). Emotion-related self-regulation and its relation to children's maladjustment. *Annual Review of Clinical Psychology*, 6(1), 495–525. <https://doi.org/10.1146/annurev.clinpsy.121208.131208>
- Evans, G. W., Li, D., & Whipple, S. S. (2013). Cumulative risk and child development. *Psychological Bulletin*, 139(6), 1342–1396. <https://doi.org/10.1037/a0031808>
- Fantuzzo, J., LeBoeuf, W., Brumley, B., & Perlman, S. (2013). A population-based inquiry of homeless episode characteristics and early educational well-being. *Children and Youth Services Review*, 35(6), 966–972. <https://doi.org/10.1016/j.childyouth.2013.02.016>
- Fosco, G. M., & Grych, J. H. (2007). Emotional expression in the family as a context for children's appraisals of interparental conflict. *Journal of Family Psychology*, 21(2), 248–258. <https://doi.org/10.1037/0893-3200.21.2.248>
- Gewirtz, A. H., DeGarmo, D. S., Plowman, E. J., August, G., & Realmuto, G. (2009). Parenting, parent mental health, and child functioning in families residing in supportive housing. *American Journal of Orthopsychiatry*, 79(3), 336–347. <https://doi.org/10.1037/a0016732>
- Goodman, R. (1997). Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38(5), 581–586. <https://doi.org/10.1111/j.1469-7610.1997.tb01545.x>
- Haskett, M. E., Armstrong, J., Neal, S. C., & Aldianto, K. (2018). Perceptions of Triple P-Positive Parenting Program seminars among parents experiencing homelessness. *Journal of Child and Family Studies*, 27(6), 1957–1967. <https://doi.org/10.1007/s10826-018-1016-5>
- Havighurst, S. S., Wilson, K. R., Harley, A. E., Prior, M. R., & Kehoe, C. (2010). Tuning in to Kids: Improving emotion socialization practices in parents of preschool children – findings from a community trial. *Journal of Child Psychology and Psychiatry*, 51(12), 1342–1350. <https://doi.org/10.1111/j.1469-7610.2010.02303.x>
- Herbers, J. E., Cutuli, J. J., Keane, J. N., & Leonard, J. A. (2020). Childhood homelessness, resilience, and adolescent mental health: A prospective, person-centered approach. *Psychology in the Schools*, 57(12), 1830–1844. <https://doi.org/10.1002/pits.22331>
- Herbers, J. E., Cutuli, J. J., Lafavor, T. L., Vrieze, D., Leibel, C., Obradović, J., & Masten, A. S. (2011). Direct and indirect effects of parenting on academic functioning of young homeless children. *Early Education and Development*, 22(1), 77–104. <https://doi.org/10.1080/10409280903507261>
- Labella, M. H. (2018). The sociocultural context of emotion socialization in African American families. *Clinical Psychology Review*, 59, 1–15. <https://doi.org/10.1016/j.cpr.2017.10.006>
- Labella, M. H., Narayan, A. J., & Masten, A. S. (2016). Emotional climate in families experiencing homelessness: Associations with child affect and socioemotional adjustment in school. *Social Development*, 25(2), 304–321. <https://doi.org/10.1111/sode.12154>
- Labella, M. H., Narayan, A. J., McCormick, C. M., Desjardins, C. D., & Masten, A. S. (2019). Risk and adversity, parenting quality, and children's social-emotional adjustment in families experiencing homelessness. *Child Development*, 90(1), 227–244. <https://doi.org/10.1111/cdev.12894>
- Lengua, L. J., Bush, N. R., Long, A. C., Kovacs, E. A., & Trancik, A. N. (2008). Effortful control as a moderator of the relation between contextual risk factors and growth in adjustment problems. *Development and Psychopathology*, 20(2), 509–528. <https://doi.org/10.1017/S0954579408000254>
- Little, R. J. A. (1988). A testing of missing completely random for multivariate data with missing values. *Journal of the American Statistical Association*, 83(404), 1198–1202. <https://doi.org/10.2307/2290157>
- Masten, A. S., Fiat, A. E., Labella, M. H., & Strack, R. A. (2015). Educating homeless and highly mobile students: Implications of research on risk and resilience. *School Psychology Review*, 44(3), 315–330. [10.17105/spr-15-0068.1](https://doi.org/10.17105/spr-15-0068.1)
- Masten, A. S., Herbers, J. E., Desjardins, C. D., Cutuli, J. J., McCormick, C. M., Sapienza, J. K., Long, J. D., & Zelazo, P. D. (2012). Executive function skills and school success in young children experiencing homelessness. *Educational Researcher*, 41(9), 375–384. <https://doi.org/10.3102/0013189X12459883>
- Masten, A. S., & Labella, M. H. (2016). Risk and resilience in child development. In: L. Balter & C. S. Tamis-LeMonda (Eds.), *Child psychology: A handbook of contemporary issues*, pp. 423–450. Taylor & Francis.

- Masten, A. S., Miliotis, D., Graham-Bermann, S. A., Ramirez, M., & Neemann, J. (1993). Children in homeless families: Risks to mental health and development. *Journal of Consulting and Clinical Psychology*, 61(2), 335–343. <https://doi.org/10.1037/0022-006X.61.2.335>
- Masyn, K. (2013). Latent class analysis and finite mixture modeling. In T. D. Little (Ed.), *Oxford handbook of quantitative methods*, pp. 551–661. Oxford University Press.
- McLoyd, V. C. (1990). The impact of economic hardship and black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61(2), 311–346. <https://doi.org/10.1111/j.1467-8624.1990.tb02781.x>
- Morris, A. S., Silk, J. S., Morris, M. D. S., Steinberg, L., Aucoin, K. J., & Keyes, A. W. (2011). The influence of mother-child emotion regulation strategies on children's expression of anger and sadness. *Developmental Psychology*, 47(1), 213–225. <https://doi.org/10.1037/a0021021>
- Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., Robinson, L. R., & Orleans, N. (2007). The role of the family context in the development of emotion regulation. *Social Development*, 16(2), 361–388. <https://doi.org/10.1111/j.1467-9507.2007.00389.x>
- Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.
- Nelson, J. A., O'Brien, M., Calkins, S. D., Leerkes, E. M., & Marcovitch, S. (2012). Maternal expressive style and children's emotional development. *Infant and Child Development*, 21(3), 267–286. <https://doi.org/10.1002/icd.748>
- Newland, R. P., & Crnic, K. A. (2011). Mother-child affect and emotion socialization processes across the late preschool period: Predictions of emerging behavior problems. *Infant and Child Development*, 20(6), 371–388. <https://doi.org/10.1002/icd.729>
- Obradović, J. (2010). Effortful control and adaptive functioning of homeless children: Variable-focused and person-focused analyses. *Journal of Applied Developmental Psychology*, 31(2), 109–117. <https://doi.org/10.1016/j.appdev.2009.09.004>
- Obradović, J., Shaffer, A., & Masten, A. S. (2012). Risk and adversity in developmental psychopathology: Progress and future directions. In: L. C. Mayes & M. Lewis (Eds.), *The environment of human development: A handbook of theory and measurement*, pp. 35–37. Cambridge University Press.
- Palmer, A. R., Labella, M. H., Plowman, E. J., Foster, R., & Masten, A. S. (2020). Parental emotion regulation strategies and parenting quality predict child internalizing symptoms in families experiencing homelessness. *Social Development*, 29(3), 732–749. <https://doi.org/10.1111/sode12435>
- Peng, C.-Y. J., Harwell, M., Liou, S.-M., & Ehman, L. H. (2006). Advances in missing data methods and implications for educational research. In: S. S. Sawilowsky (Ed.), *Real data analysis*, pp. 31–78. IAP.
- Raver, C. C., & Spagnola, M. (2003). When my mommy was angry, I was speechless: Children's perceptions of maternal emotional expressiveness within the context of economic hardship. *Marriage & Family Review*, 34(1-2), 63–88. https://doi.org/10.1300/J002v34n01_04
- Robinson, L. R., Morris, A. S., Heller, S. S., Scheeringa, M. S., Boris, N. W., & Smyke, A. T. (2009). Relations between emotion regulation, parenting, and psychopathology in young maltreated children in out of home care. *Journal of Child and Family Studies*, 18(4), 421–434. <https://doi.org/10.1007/s10826-008-9246-6>
- Samuels, J., Shinn, M., & Buckner, J. C. (2010). *Homeless children: Update on research, policy, programs, and opportunities*. Report prepared for the Office of the Assistant Secretary for Planning and Evaluation, U.S., Department of Health and Human Services.
- Sheeber, L. B., Allen, N. B., Leve, C., Davis, B., Shortt, J. W., & Katz, L. F. (2009). Dynamics of affective experience and behavior in depressed adolescents. *Journal of Child Psychology and Psychiatry*, 50(11), 1419–1427. <https://doi.org/10.1111/j.1469-7610.2009.02148.x>
- Sheller, S. L., Hudson, K. M., Bloch, J. R., Bibble, B., Ewing, E. S. K., & Slaughter-Acey, J. C. (2018). Family Care Curriculum: A parenting support program for families experiencing homelessness. *Maternal and Child Health Journal*, 22(9), 1247–1254. <https://doi.org/10.1007/s10995-018-2561-7>
- Shields, A. M., & Cicchetti, D. (1997). Emotion regulation in school-age children: The development and validation of a Q-sort scale. *Developmental Psychology*, 33(6), 906–916. <https://doi.org/10.1037/0012-1649.33.6.906>
- Shinn, M., & Khadduri, J. (2020). *In the midst of plenty: Homelessness and what to do about it*. John Wiley & Sons.
- Snyder, J., Stoolmiller, M., Wilson, M., & Yamamoto, M. (2003). Child anger regulation, parental responses to children's anger displays, and early child antisocial behavior. *Social Development*, 12(3), 335–360. <https://doi.org/10.1111/1467-9507.00237>
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. In: N. A. Fox (Ed.), *The development of emotion regulation and dysregulation: Biological and behavioral aspects*. *Monographs of the Society for Research in Child Development*, 59, 25–52. <https://doi.org/10.1111/j.1540-5834.1994.tb01276.x>
- Zalewski, M., Lengua, L. J., Kiff, C. J., & Fisher, P. A. (2012). Understanding the relation of low income to HPA axis functioning in preschool children: Cumulative family risk and parenting as pathways to disruptions in cortisol. *Child Psychiatry & Human Development*, 43(6), 924–942. <https://doi.org/10.1007/s10578-012-0304-3>

- Zelazo, P. D. (2020). Executive function and psychopathology: A neurodevelopmental perspective. *Annual Review of Clinical Psychology*, 16(1), 431–454. <https://doi.org/10.1146/annurev-clinpsy-072319-024242>
- Zeman, J., Cassano, M., Perry-Parrish, C., & Stegall, S. (2006). Emotion regulation in children and adolescents. *Developmental and Behavioral Pediatrics*, 27(2), 155–168. <https://doi.org/10.1097/00004703-200604000-00014>

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