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Emotion socialization and internalizing behavior problems in diverse youth: A bidirectional relationship across childhood



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ABSTRACT

Mothers' and fathers' emotion socialization (ES) practices have been widely associated with child socioemotional outcomes. To extend this research, we examined the bidirectional relationship between parent ES practices (supportive and non-supportive parenting) and internalizing behavior problems in children of Anglo and Latino parents. Participants were 182 mothers and 162 fathers and their children with or without intellectual disability (ID). We compared the stability of mother and father ES practices across child ages 4–8. We utilized cross-lagged panel modeling to examine the bidirectional relationship between parents' ES and child internalizing behavior problems. Emotion socialization practices differed across time by parent gender, with mothers displaying higher levels of supportive parenting and lower levels of non-supportive parenting than fathers. Cross-lagged panel models revealed differential relationships between child internalizing behaviors and emotion socialization practices by parent gender and by ethnicity. Implications for intervening with culturally diverse families of children with ID are discussed.

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1. Introduction

Childhood is a time in which individuals develop independence in their self-regulation abilities. Children with intellectual disability (ID) are particularly at risk for deficits in emotion regulation (Nader-Grosbois, 2014; Wilson, 1999), which increases the likelihood of developing psychological disorders (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Children with ID are up to four times as likely as typically developing (TD) children to meet criteria for a psychiatric disorder at any given time (Dekker & Koot, 2003; Einfeld et al., 2011). Depressive and anxiety disorders have been found to be significantly higher in children with ID than in their TD peers (Green, Berkovits, & Baker, 2015; Hammen & Brennan, 2003). Prevalence rates of anxiety disorders range from 10% to 22% in youth with ID compared to rates of 3%–7% in TD youth (Dekker & Koot, 2003; Emerson, 2003). Though there has been a focus on the elevated level of externalizing disorders in children with ID, there is still much to be learned about internalizing disorders in this population. Further, contextual factors also contribute to children's social-emotional outcomes. Parents' reactions to children's emotions have been shown to play an important role in the development of emotion regulation (Eisenberg, Cumberland, & Spinrad, 1998). These processes are likely to differ among families of children with ID and among families of diverse background.

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1.1. *Emotion socialization and child outcomes*

Parents' reactions to children's emotional displays have been well documented as a form of emotion socialization and have been associated with both child emotion regulation and expression (Eisenberg et al., 1998; Kopp, 1989). Fabes and colleagues (2003) classified parents' reactions to children's negative emotions as supportive or non-supportive. Supportive reactions include: emotion-focused reactions, problem-focused reactions, and expressive encouragement, while non-supportive include: punitive reactions, minimization reactions, and distress reactions. Non-supportive parental reactions have been shown to be associated with children displaying more inhibition and internalizing problems (Denham, Bassett, & Wyatt, 2007; Hastings & De, 2008), while supportive parental reactions have been associated with adaptive emotion regulation skills and greater social competence in children (Eisenberg et al., 1998; Gottman, 1997). Prior literature has examined the effect of emotion socialization on child outcomes; however, there is a need to examine the bidirectional relationship between emotion socialization and child behavior longitudinally.

1.2. *Emotion socialization in children with intellectual disability*

There is still much to be learned about how emotion socialization processes work for children with intellectual disability (ID). Mothers of children at developmental risk appear to show increased negative affect, while their children show elevated externalizing emotional expression (Newland & Crnic, 2011). Paczkowski and Baker (2007) found that children with ID expressed higher levels of overall problem behaviors when compared to their TD peers, particularly when their mothers displayed higher levels of non-supportive parenting.

Examination of emotion socialization and parenting of children with ID has often focused on mothering, though research in TD children has indicated that both fathers and mothers contribute to a child's social-emotional and cognitive functioning (Schacht, Cummings, & Davies, 2009). Research has suggested that fathers are comparable to mothers in their emotional availability and sensitivity when parenting their children with ID (de Falco, Venuti, Esposito, & Bornstein, 2009). However, differences have been noted between mothers and fathers of children with ID in regard to parent-child interactions. Mother negative-controlling behavior has been associated with subsequent increases in children's difficult behaviors; while for fathers, children's initial level of difficult behavior predicted change in father's negative-controlling behavior (Fenning, Baker, Baker, & Crnic, 2014). Further, one study found that both mothers and fathers of young children with ID were significantly more non-supportive than parents of TD children (Rodas, Zeedyk, & Baker, *in press*). This study also found that children of depressed fathers in particular were especially vulnerable to developing internalizing behavior problems in an unsupportive parenting context. Green & Baker (2011) found that mothers displayed higher levels of negative affect when compared to fathers. Additionally, mother positive affect predicted increased social skills for TD children but not for children with ID, while father positive affect predicted lower social skills. Lastly, this study found that both mother and father negative affect predicted lower social skills for children with ID.

1.3. *Latino and anglo parenting*

In addition to potential differences between mother and father parenting practices, culture is an important variable that may affect parenting practices and emotional socialization in youth with or without ID. Studies suggest that Latino parents—primarily of Latin American origin—have differing parenting beliefs from Anglo parents. These differing beliefs include placing more importance on “*familismo*” (familism or a focus on family), on “*respeto*” (respect), and being “*bien educado*” (well-mannered) (Calzada, Fernandez, & Cortes, 2010; Harwood, Leyendecker, Carlson, Asencio, & Miller, 2002). These differing parenting beliefs are likely to influence emotion socialization practices in Latino parents. The bulk of the research on emotion socialization in Latino families has focused on emotion expression. Studies have shown Anglo mothers display more warmth than Latina mothers (Ispa et al., 2004). Notably, one study found that Anglo and Latina mothers used similar emotion socialization practices, though Latina mothers were more likely to utilize minimization responses to their children's negative affect (Lugo-Candelas, Harvey, & Breaux, 2015).

Researchers are beginning to examine Latino mother and father similarities and differences in their emotion socialization. Gamble, Ramaku, and Diaz (2007) found that Mexican-American mothers and fathers did not differ in their report of emotion socialization strategies, though there were differences in their observed supportiveness. Mothers were consistently more supportive and responsive than fathers. This is interesting given that prior research has found differences among mother and father report of emotion socialization in European American families, such that fathers report being more minimizing and less supportive than mothers (Eisenberg et al., 1998).

1.4. *Parenting differences by ethnic group and delay status*

The research on ethnicity and parenting in children with ID is growing. Researchers have found that, compared with Anglo mothers, Latina mothers of children with ID place less responsibility on their children for their behavior problems (Chavira, Lopez, Blacher, & Shapiro, 2000), and value independence in their child less (Rueda, Monzo, Shapiro, Gomez, & Blacher, 2005). Latina mothers also have reported that their child with ID has had a greater positive impact on the family when compared to Anglo mothers (Blacher and Baker, 2007; Blacher et al., 2013). To date there has been little research directly examining

the impact of ethnic differences in child rearing beliefs or parenting practices on mental health outcomes in children with ID. Marquis and Baker (2014) found that higher maternal sensitivity and scaffolding predicted a significant decrease in child externalizing behavior problems for Latino but not Anglo families. Ethnic differences in outcomes between children with or without ID were not found. However, given that Latino and Anglo parents differ on beliefs regarding their children with ID, further examination is needed. The current study expands on the literature by examining the differential effects of emotion socialization practices on child internalizing behavior problems in Latino and Anglo families.

1.5. Research questions and hypotheses

The first aim of this study was to examine whether emotion socialization practices vary across time by parent gender or child delay status. We examined the following research questions:

1a) Do mothers and fathers differ in their supportive and non-supportive parenting reactions from child ages 4 and 8?

1b) Do parents of children with ID or TD differ in their supportive and non-supportive parenting reactions from child ages 4 and 8?

The second aim was to examine the bidirectional relationship between parent emotion socialization and internalizing behavior problems. Additionally, to determine how child and parent characteristics—including child delay status, parent gender, and ethnic background—affect the relationship between parental emotion socialization and child internalizing behavior problems.

2a) What is the direction of effect over time between *supportive parenting reactions* and child internalizing behavior problems in Latino and Anglo parents of children with or without ID?

2b) What is the direction of effect over time between *non-supportive parenting reactions* and child internalizing behavior problems in Anglo and Latino parents of children with or without ID over time?

Based on prior research, we expected that fathers would demonstrate lower levels of supportive and higher levels of non-supportive parenting than mothers (e.g. Eisenberg et al., 1998). We also expected that non-supportive parenting reactions at child age 4 would relate positively with later child internalizing behavior problems, and that supportive parenting reactions would be inversely related to child internalizing behaviors; child internalizing behavior problems at age 4 would in turn predict parenting reactions at age 8. Finally, we explored the role of ethnicity on this bidirectional relationship, though there was not a sufficient research base as to advance a hypothesis.

2. Materials and methods

2.1. Participants

Participants were 182 mothers and 162 fathers and their children at child ages four and eight years. Families were participating in the Collaborative Family Study, conducted at three universities located in Southern California and Central Pennsylvania, to study family processes in youth with ID or TD. Families of children with ID were recruited from agencies that provided diagnostic and intervention services for persons with intellectual disabilities. Children with autism were excluded from the study. Families of children with typical development (TD) were recruited through local preschools and daycare programs.

Children were included in the ID sample if, at their age 5 laboratory visit, they were determined to have: (a) an IQ in the clinical or borderline range for ID, below 85 on the Stanford-Binet Intelligence Scale (Thorndike, Hagen, & Sattler, 1986), and (b) a standard score below 85 on the Vineland Adaptive Behavior Scales (VABS; Sparrow, Cicchetti, & Balla, 2005). We combined those with IQs below 70 and those with IQs ranging from 71 to 84 (i.e., in the borderline range) in the ID group. This decision was based on prior research demonstrating similarities in the difficulties faced by those with borderline intellectual functioning and those with ID (DSM-IV-TR, APA, 2000; Fenning, Baker, Baker, & Crnic, 2007). Participants in the TD group had an IQ of 85 or above on the Stanford-Binet Intelligence Scale, a standard score above 85 on the VABS, and no previous history of a developmental delay or other disability.

2.2. Procedure

The Institutional Review Boards of the participating universities approved study procedures. Participating mothers and fathers signed informed consent forms. The child's intellectual and adaptive functioning levels were assessed during a research center visit at child age 5. Mothers and fathers completed measures of child behavior problems and of their responses to the child's negative affect, at child ages 4 and 8 years. Families received an honorarium for their participation.

2.3. Measures

2.3.1. Stanford-Binet intelligence scale, 4th edition (Thorndike et al., 1986)

Child intellectual status was determined utilizing the Stanford-Binet. This widely used instrument is particularly well suited for evaluating children with developmental delays, because the examiner adapts the starting points according to the child's developmental level. The eight sub-tests most appropriate for 5-year-olds were used (i.e., Vocabulary, Comprehension,

Absurdities, Pattern Analysis, Copying, Quantitative, Bead Memory, and Memory for Sentences). The composite standard IQ score ($M = 100$; $SD = 15$) was used. High internal consistency has been reported, and there is sufficient evidence for validity, as reported in the technical manual (Thorndike et al., 1986).

2.3.2. Vineland adaptive behavior scales (VABS; Sparrow et al., 2005)

To assess adaptive functioning (in order to establish group membership further), the VABS was administered to mothers as a semi-structured interview at child age 5. The overall adaptive composite ($M = 100$; $SD = 15$)—comprised of communication, daily living skills and socialization domains—was utilized. The VABS instrument has an internal consistency from 0.75 to 0.80 and Cronbach's alpha of 0.93 (Sparrow et al., 2005).

2.3.3. Child behavior checklist (CBCL) for ages 1½–5 years and ages 6–18 years (Achenbach & Rescorla, 2000, 2001)

To assess child behavior problems, mothers and fathers completed the CBCL at child ages 4 and 8. Two parent versions of the CBCL were used: the preschool version at child age 4 years (for ages 1.5–5 years; 99 items), and the youth version at child age 8 years (for ages 6–18 years, 113 items). Each item is rated on a 3-point scale: 0 (not true), 1 (somewhat or sometimes true), or 2 (very true or often true). The CBCL yields a total problem score, broadband externalizing and internalizing scores, and seven narrow-band scales. The present study used T scores for internalizing behavior problems ($M = 50$ and $SD = 10$). The CBCL parent report form has alpha coefficients from 0.85 to 0.88 for the internalizing score.

2.3.4. The coping with children's negative emotions scale (CCNES; Fabes, Eisenberg, & Bernzweig, 1990)

The CCNES is a self-report measure used to assess the degree to which parents perceive themselves as being reactive to young children's negative affect in distressful situations. Parents are presented with 12 hypothetical scenarios in which their child is either sad or angry. On each scenario, they are asked to rate the likelihood (on a 7-point scale from “very likely” to “very unlikely”) of their responding in each of six ways, which represent the six subscales of the measure. For example, parents are presented with the following type of scenario: if my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party I would: (a) send my child to his/her room to cool off (i.e. punitive reaction), (b) get angry at my child (i.e. distress reaction), (c) help my child think about ways that he/she can still be with friends (i.e. problem-focused reactions), (d) tell my child not to make a big deal out of missing the party (i.e. minimization reaction), (e) encourage my child to express his/her feelings of anger and frustration (i.e. expressive encouragement), (f) soothe my child and do something fun with him/her to make him/her feel better about missing the party (i.e. emotion-focused reaction). The CCNES has good internal reliability and test-retest reliability, as well as good concurrent and construct validity (Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002). In the present study, a principal components analysis with a varimax rotation was employed to create two orthogonal components. The results of this analysis revealed the same two components (supportive parenting reactions and non-supportive reactions) as described by Fabes et al. (2002). The corresponding subscales were averaged to create the composite variables of supportive and non-supportive parenting reactions. Alphas for Latino and Anglo mothers and fathers were all high, ranging from 0.88 to 0.94 for supportive parenting reactions and 0.82–0.91 for non-supportive.

2.4. Data analytic plan

First, differences in emotion socialization practices were examined by parent gender (mother, father) and developmental status (TD, ID), utilizing a subsample of families with complete mother ($N = 90$) and father ($N = 90$) data across child ages 4–8 years (17.8% of parents in the subsample were Latino). A repeated measures ANCOVA was conducted using supportive parenting reactions as the dependent variable, child delay status, parent gender and child age as independent variables and parental education as a covariate.

Next, to examine the bidirectional effects between emotion socialization and child internalizing behavior problems over time, separate cross-lagged panel analyses were conducted for mothers and fathers with Mplus Version 6 (Muthén & Muthén, 2010). We used full information maximum likelihood (FIML) to estimate missing data; FIML has been demonstrated to be a robust estimator (Enders & Bandalos, 2001; Schlomer et al., 2010). Each model was tested for goodness of fit using the comparative fit index (CFI; Bentler, 1990), the Tucker Lewis Index (TLI; Tucker & Lewis, 1973), the root mean-square error of approximation (RMSEA; Browne & Cudeck, 1993), and the chi-square fit statistic.

First, we examined the association between supportive parenting reactions and child internalizing behavior problems over time. We fit two multi-group models and allowed paths to differ by ethnicity (Anglo/Latino). Child delay status was included as a predictor of both supportive parenting reactions and child internalizing behaviors at the initial time point, and parental education was included as a covariate in predicting parenting at child age 4. The dependent variables, supportive parenting reactions and child internalizing behavior problems, were measured at child ages 4 and 8. Predictor variables were supportive parenting reactions and child internalizing behaviors measured at child age 4. Next, we ran cross-lagged panel analyses to examine the bidirectional effects between parental non-supportive parenting reactions and child internalizing behavior problems over time. Again, we fit two multi-group models and allowed paths to vary by ethnicity. Child delay status was included as a predictor of non-supportive reactions and child internalizing behavior problems, and parental education was included as a covariate.

Table 1
Demographic characteristics by status (ID, TD) and ethnicity (Anglo, Latino).

	Child Delay Status			Mother			Father		
	TD (N = 119)	ID (N = 66)	<i>t</i> or χ^2 status	Anglo (N = 136)	Latino (N = 46)	<i>t</i> or χ^2 ethnicity	Anglo (N = 128)	Latino (N = 34)	<i>t</i> or χ^2 ethnicity
Child IQ (SD)	103.3 (11.2)	60.8 (16.4)	$t = 18.82^{***}$						
Child Sex (% Male)	58.9	59.1	$\chi^2 = 0.00$	61.0	54.3	$\chi^2 = 0.64$	59.4	55.9	$\chi^2 = 0.14$
Mother's age	35.0 (5.6)	33.2 (5.9)	$t = 2.09^*$	34.9 (5.9)	32.5 (5.2)	$t = -2.45^*$			
Father's age	37.0 (6.1)	37.6 (7.4)	$t = -0.53$				34.8 (5.4)	32.7 (5.7)	$t = -2.00^*$
Mother's education	15.6 (2.5)	14.1 (2.0)	$t = 4.40^{***}$	15.4 (2.5)	13.8 (1.9)	$t = -4.60^{***}$			
Father's education	15.6 (3.1)	13.9 (2.5)	$t = 3.38^{**}$				15.3 (2.5)	14.2 (2.5)	$t = -2.45^*$

Note. * $p < 0.01$, ** $p < 0.05$, *** $p < 0.001$.

Table 2a
Parenting Means by child delay status.

Variable	ID (N = 50) Mean/Frequency	TD (N = 130) Mean/Frequency	<i>t</i>
Supportive parenting at age 4	5.14 (0.91)	5.27 (0.71)	0.87
Supportive parenting at age 8	5.16 (0.92)	5.02 (0.77)	-0.91
Non-Supportive parenting at age 4	2.63 (0.66)	2.49 (0.69)	-1.27
Non-Supportive parenting at age 8	2.79 (0.77)	2.50 (0.66)	-2.29**

Note. ** $p < 0.05$.

Table 2b
Parenting Means by parent gender.

Variable	Mothers (N = 90) Mean/Frequency	Fathers (N = 90) Mean/Frequency	<i>t</i>
Supportive parenting at age 4	5.50 (0.63)	4.96 (0.81)	5.03***
Supportive parenting at age 8	5.33 (0.73)	4.79 (0.81)	4.68***
Non-Supportive parenting at age 4	2.34 (0.52)	2.73 (0.76)	-3.97***
Non-Supportive parenting at age 8	2.49 (0.66)	2.68 (0.74)	-1.84*

Note. * $p < 0.10$, *** $p < 0.001$.

3. Results

3.1. Demographics

Table 1 shows participant demographics at child age 4 by child delay status (TD, ID), as well as by mother and father ethnicity (Anglo, Latino). The average child age for the entire sample was 35.1 months ($SD = 3.0$) at study intake, and there were more boys (59%) than girls. Mothers' mean age was 34.3 years and fathers' mean age was 37.2 years. The socioeconomic status was generally high, with 55% of families having an annual household income above \$50,000. Mothers' and fathers' years of schooling each averaged 15.0. On average both mothers' and fathers' report of child internalizing behavior *t*-scores were close to normative mean, with 10% of children being at or above the borderline range and 5% being at or above the clinical range.

Demographics for the TD and ID status groups were similar, though the TD group had significantly more years of education for mothers ($t = 4.40$, $p < 0.001$), and fathers ($t = 3.38$, $p < 0.01$), and slightly older mothers ($t = 2.09$, $p < 0.05$). Demographics for the Anglo and Latino ethnicity groups followed a similar pattern with Anglo group mothers and fathers being significantly older and with more years of education than Latino mothers and fathers. Parental education levels were significantly associated with the parent and child variables of interest, and therefore were covaried in all analyses.

3.2. Emotion socialization across age 4 and 8

Regarding research question 1a, whether emotion socialization differed by parent gender, supportive parenting practices varied by parent gender across time, $F(1, 175) = 25.19$, $p < 0.001$, partial $\eta^2 = 0.13$. Mothers consistently reported higher levels of supportive parenting reactions than fathers, at both child ages 4 and 8 (Table 2a and b). For non-supportive parenting reactions, there was a significant interaction between child age and parent gender, $F(1, 175) = 6.44$, $p = 0.012$, partial $\eta^2 = 0.04$; such that from child ages 4–8 the difference between mothers and fathers decreased. Mothers' levels of non-supportive parenting reactions increased, while fathers' levels of non-supportive reactions remained more stable.

Regarding research question 1b, whether emotion socialization differed by child delay status across time, there was a trend-level interaction between child age and child delay status, $F(1, 175) = 2.90$, $p = 0.090$, $\eta^2 = 0.02$. Parents of TD group children decreased in their level of supportive parenting from child ages 4–8, though parents of children with ID remained more stable over time. In examining non-supportive parenting reactions, there was a trending main effect of child delay

Table 3
Parenting Means by Ethnicity.

Variable	Anglo Mean (SD)	Latino Mean (SD)	t
Mother Supportive parenting at age 4	5.50 (0.67)	5.55 (0.66)	0.44
Mother Supportive parenting at age 8	5.38 (0.68)	5.06 (0.92)	−2.16 [*]
Mother Non-Supportive parenting at age 4	2.28 (0.51)	2.47 (0.57)	2.06 [*]
Mother Non-Supportive parenting at age 8	2.41 (0.63)	2.64 (0.70)	1.73 [*]
Father Supportive parenting at age 4	5.00 (0.86)	5.17 (0.79)	1.00
Father Supportive parenting at age 8	4.78 (0.79)	4.52 (0.79)	−1.18
Father Non-Supportive parenting at age 4	2.69 (0.75)	2.74 (0.79)	0.35
Father Non-Supportive parenting at age 8	2.63 (0.75)	2.92 (0.79)	1.43

Note. ^{*}p < 0.10, ^{*}p < 0.05.

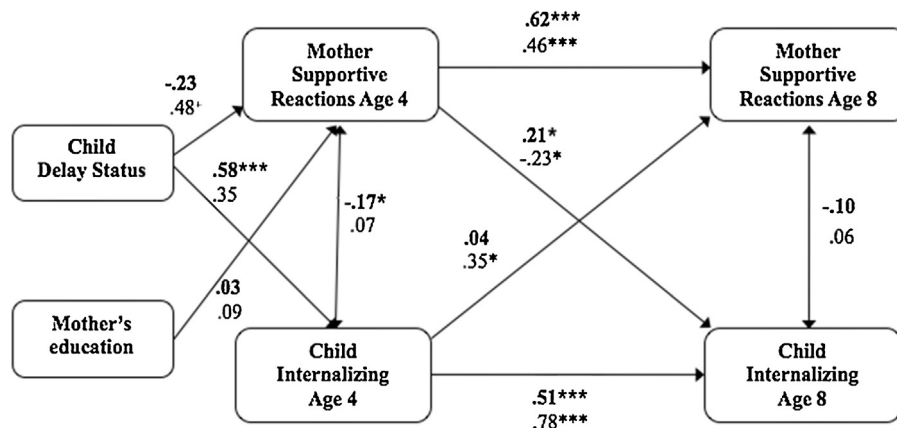


Fig. 1. Mother Supportive Reactions and Child Internalizing Behavior. Note. Bold values displayed on top are Anglo mothers and non-bold values displayed below are Latina mothers; ^{*}p < 0.10, ^{*}p < 0.05, ^{**}p < 0.01, ^{***}p < 0.001.

status, $F(1, 175) = 3.43$, $p = 0.066$, partial $\eta^2 = 0.02$. Parents of children with ID displayed higher levels of non-supportive reactions than parents of TD children.

3.3. Emotion socialization and child internalizing behaviors

Group differences were not observed for supportive parenting reactions between Anglo and Latina mothers at child age 4 (Table 3). However, at child age 8 Anglo mothers reported higher levels of supportive parenting than Latina mothers ($t = -2.16$, $p < 0.05$). Latina mothers reported higher levels of non-supportive parenting reactions when compared to Anglo mothers at both time points (age 4: $t = 2.06$, $p < 0.05$; age 8: $t = 1.73$, $p < 0.10$). Anglo and Latino fathers did not differ at either time point on either supportive or non-supportive parenting reactions.

3.3.1. Supportive parenting

Regarding research question 2a, examining the direction of effect between supportive parenting reactions and child internalizing behavior problems, the full model for mothers showed good fit; CFI = 0.98, TLI = 0.96, RMSEA = 0.04, $\chi^2(10) = 11.58$, $p = 0.31$ (Fig. 1). Supportive parenting reactions were moderately stable from child ages 4–8 for Latina and Anglo mothers. Child internalizing behaviors were also moderately stable over time. Child delay status was not significantly related to mother supportive parenting reactions for either Anglo or Latina mothers. Child delay status was significantly related to mother's perceptions of child internalizing behaviors in Anglo mothers ($B = 0.58$, $p = 0.001$), but not in Latina mothers. The cross-lagged effect from mother supportive parenting reactions at child age 4 to child internalizing behaviors at child age 8 was significant for both Anglo ($B = 0.21$, $p = 0.025$) and Latina ($B = -0.23$, $p = 0.033$) mothers. The cross-lagged effects from child internalizing behavior problems at age 4 predicting mother supportive parenting reactions at child age 8 was significant for Latina mothers ($B = 0.35$, $p = 0.039$) but not for Anglo mothers.

The full model for fathers also showed good fit; CFI = 1.00, TLI = 1.12, RMSEA = 0.00, $\chi^2(10) = 6.80$, $p = 0.74$ (Fig. 2). Similarly, for fathers there was moderate stability in supportive parenting reactions from child ages 4–8. Child internalizing behavior problems were also moderately stable across ages 4–8 as reported by fathers. Child delay status was not related to father supportive parenting in either group. Child delay status was significantly related to father's perceptions of child internalizing behaviors for Anglo fathers ($B = 0.58$, $p = 0.001$). The cross-lagged effect from father supportive parenting reactions at child age 4 to child internalizing behaviors at child age 8 was significant for Latino fathers ($B = 0.56$, $p = 0.003$). The cross-lagged

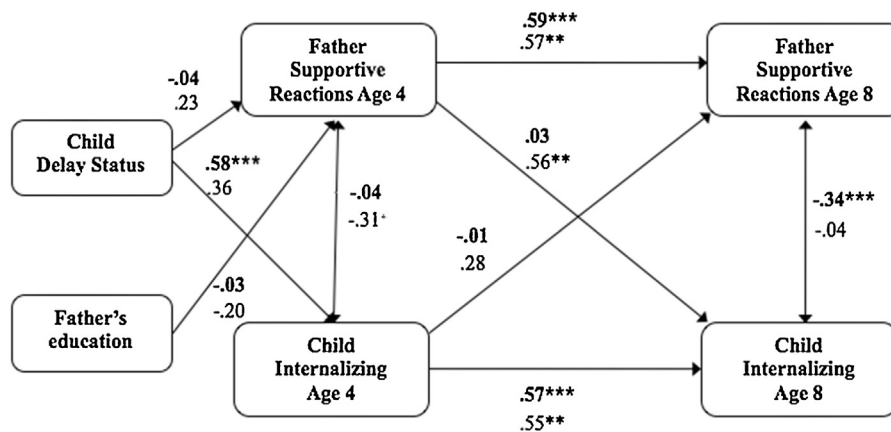


Fig. 2. Father Supportive Reactions and Child Internalizing Behavior. *Note.* Bold values displayed on top are Anglo fathers and non-bold values displayed below are Latino fathers; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.001$.

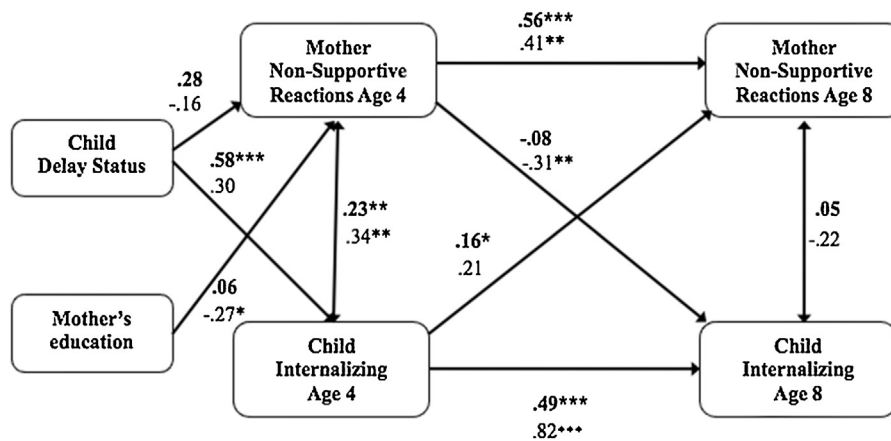


Fig. 3. Mother Non-Supportive Reactions and Child Internalizing Behavior. *Note.* Bold values displayed on top are Anglo mothers and non-bold values displayed below are Latina mothers; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.001$.

effect from child internalizing behavior problems at age 4 predicting father supportive parenting reactions at child age 8 was not significant for either group.

3.3.2. Non-supportive parenting

Regarding research question 2b, the direction of effect between non-supportive parenting reactions and child internalizing behavior problem, the full model for mothers showed good fit; CFI = 1.00, TLI = 1.10, RMSEA = 0.00, $\chi^2(10) = 6.14$, $p = 0.80$ (Fig. 3). Non-supportive parenting reactions were moderately stable from child ages 4–8 for Anglo and Latina mothers. Child delay status was not significantly related to mother non-supportive parenting reactions for either Anglo nor Latina mothers. The cross-lagged effect from mother non-supportive parenting reactions at child age 4 to child internalizing behaviors at child age 8 was significant for Latina mothers ($B = -0.31$, $p = 0.009$). The reverse cross-lagged effect, from child internalizing behavior problems at age 4 to mother supportive parenting reactions at child age 8, was significant for Anglo mothers ($B = 0.16$, $p = 0.05$).

The full model for fathers also showed good fit; CFI = 1.00, TLI = 1.18, RMSEA = 0.00, $\chi^2(10) = 3.13$, $p = 0.98$ (Fig. 4). Anglo and Latino fathers displayed stability in non-supportive parenting reactions from child ages 4–8. Child delay status was not found to be significantly related to father non-supportive reactions in either group. The cross-lagged effects were not significant for either Latino or Anglo fathers.

4. Discussion

The focus of this study was on the relationship between parents' emotion socialization and child internalizing behavior problems in Anglo and Latino parents of children with or without ID. The first set of research questions addressed mother and father differences in emotion socialization practices from early to middle childhood. Mothers reported higher levels of supportive parenting reactions when compared to fathers. This is consistent with prior literature involving TD children, which

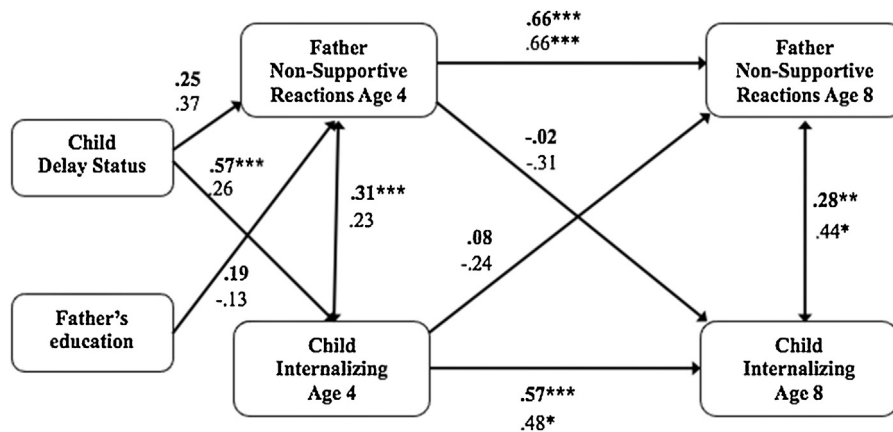


Fig. 4. Father Non-Supportive Reactions and Child Internalizing Behavior. *Note.* Bold values displayed on top are Anglo fathers and non-bold values displayed below are Latino fathers; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, **** $p < 0.001$.

has found that mothers are more focused on emotions and encourage more emotional expression than fathers (Cassano, Perry-Parrish, & Zeman, 2007; Eisenberg, Fabes, & Murphy 1996). There was also a significant interaction between child age and parent gender found in non-supportive parenting, such that from child ages 4–8 the difference between mothers and fathers decreased. Mothers' levels of non-supportive parenting reactions increased, while fathers' remained relatively stable. This could be due to the fact that as children grow older fathers may not be as involved with childrearing, while mothers are more directly influenced by a child's behavior problems (Hastings, 2003; Tehee et al., 2009), thus affecting their parenting. It is also likely that as children grow older, mothers are engaging in different parenting practices. For example, rather than reacting to the child's negative emotion in a problem focused way, parents may increasingly expect their child to self-regulate by sending him/her to his/her room. Further, Dallaire and Weinraub (2005) found that while positive aspects of parenting were stable over time, negative parenting behaviors fluctuated. The present study expands on these findings by demonstrating that mothers' levels of non-supportive parenting are likely to increase from early to middle childhood.

Next, we examined the effect of child delay status on parents' perceptions of internalizing behavior problems. We found that child delay status was associated with parents' perceptions of higher internalizing behavior problems for Anglos but not Latinos. Prior research has established that cultural groups vary in their beliefs regarding child development and disability (Skinner & Weisner, 2007). Latino parents of children with developmental delays do not often perceive their children as being responsible for their behavior problems (e.g. Chavira et al., 2000), which may impact the frequency with which they report internalizing behavior problems. This discrepancy could also be due to the differential levels of mental health literacy among Anglo and Latino parents (Alegria et al., 2002), leading Latino parents to be less likely to identify problems such as anxiety and depression. These factors likely influence parents' perceptions of internalizing behavior problems in their child with an ID.

4.1. Supportive parenting and child internalizing behaviors

We then examined whether there was a bidirectional relationship between parent emotion socialization and child internalizing behavior problems in Latino and Anglo parents of children with or without ID. We found that mother supportive parenting reactions earlier in childhood were related to child internalizing behaviors later in childhood for both ethnic groups. For Anglo mothers, higher levels of supportive parenting during early childhood led to higher levels of internalizing behavior problems in later childhood. These findings are discordant with prior research demonstrating that supportive parenting promotes adaptive emotion regulation skills in children (Eisenberg et al., 1998; Gottman, 1997). However, in this study, we examined internalizing behavior problems specifically rather than overall emotion regulation, which may account for the discordant findings. It may also be possible that higher levels of supportive parenting increase a child's level of avoidance over time, resulting in fewer corrective learning experiences. For example, if a parent is constantly trying to solve the problem that has caused the child distress, rather than validate the child's emotions or teach the child how to confront their problem, it may lead to increased internalizing behaviors in the child over time. Prior literature on anxiety has demonstrated that overly involved or overprotective parenting are associated with child internalizing behaviors (Bayer, Sanson, & Hemphill, 2006; Chorpita & Barlow, 1998). The present finding suggests that high levels of supportive parenting may also contribute to internalizing behavior problems over time for Anglo mothers and their children.

In contrast, for Latina mothers, higher levels of supportive parenting led to lower levels of child internalizing behavior problems. This finding is consistent with literature that has demonstrated parental acceptance to be associated with less internalizing disorders in Latino populations (Hill, Bush, & Roosa, 2003). This finding represents an interesting cross-cultural difference that may be explained by an emphasis on interdependence and familismo within Latino culture that may translate into more protective parenting (Domenech, Rodriguez, Donovan, & Crowley, 2009). Particularly given that familismo is

characterized by a great deal of indulgence and care for young children (Halberstadt & Lozada, 2011). Thus, higher levels of supportive mothering may be culturally consistent with Latino values in early childhood, and conducive to later child well-being in Latino families.

Furthermore, we found that child internalizing behaviors earlier in childhood significantly related to higher levels of mother supportive reactions in later childhood for Latina but not Anglo mothers. The present findings suggest that as children get older, Anglo mothers may promote more independence irrespective of whether their child presents with internalizing behaviors problems. Latina mothers, on the other hand, may continue to be consistently supportive toward their child with internalizing behavior problems. This is consistent with findings that suggest that Latino and Anglo parents differ in their expectations of their child's developmental trajectory. For example, prior research has found that Latino parents of children with disabilities expect their children to meet certain developmental milestones (e.g. acquiring language) much later than Anglo parents' expectations (Gannotti, Handwerker, Groce, & Cruz, 2001; Garcia, Perez, & Ortiz, 2000). However, when it comes to comportment that is valued by Latino culture (e.g. respect, responsibility, closeness to their families, etc.), parents expect their child with a disability to display behavior that is in line with typical development (Arcia, Reyes-Blanes, & Vazques-Montilla, 2000). The present study expands on this by demonstrating that Anglo and Latina mothers differ with regard to supportive parenting practices throughout their child's development.

In examining father supportive reactions, we found that father supportive parenting reactions earlier in childhood were related to higher child internalizing behaviors later in childhood for Latino but not Anglo fathers. This finding is inconsistent with the pattern found for Latina mothers as well. One explanation for this difference may be that children perceive and experience Latino mothers' and fathers' supportive parenting differently. For example, fathers may be perceived as more demanding or controlling when reacting to their child's negative emotions, while mothers may present as more warm. Prior research has found that Latino fathers place a higher emphasis on their child's control of emotions (e.g. not crying) than Anglo parents (Durrett, O'Bryant, & Pennebaker, 1975; Julian, McKenry, & McKelvey, 1994). Further, parenting characterized as intrusive or controlling has also been associated with greater child internalizing behaviors (e.g. Chorpita & Barlow, 1998). Therefore, it is plausible that Latino fathers' nonverbal cues and overall demeanor differ from mothers' when reacting to their child, which may lead to different emotional sequelae. Future qualitative and observational studies may help to further characterize father's parenting behaviors. In particular, it may be important for future research to take into account tone of voice as well as other non-verbal cues when examining supportive parenting reactions. Latino fathering practices are infrequently studied, therefore further research is necessary in order to gain a better sense of the impact that their parenting has on child outcomes.

4.2. *Non-supportive parenting and child internalizing behaviors*

Next, we examined the bidirectional relationship between non-supportive parenting reactions and child internalizing behavior problems. For Anglo mothers, higher levels of child internalizing behavior problems led to higher levels of non-supportive parenting reactions. This is in line with prior research that has shown mothers of anxious children to be more negative than mothers of non-anxious children (Hudson & Rapee, 2001). This current study finding suggests that this mechanism may be driven by initial levels of child internalizing behaviors for Anglo mothers. This pattern of findings was not observed in Latina mothers and their children. For Latina mothers, in the presence of higher child internalizing behavior problems, they displayed higher supportive parenting as opposed to non-supportive parenting. Therefore, while Latina mothers respond in a supportive manner to heightened levels of internalizing behavior problems, Anglo mothers respond in a non-supportive manner.

For Latina mothers, higher levels of non-supportive parenting led to lower levels of child internalizing behaviors. This is contrary to what we would have expected; however, it is important to keep in mind that there were relatively low levels of non-supportive parenting displayed in our sample. Prior research has also found the relationship between non-supportive parenting and child well-being often differs in minority groups (i.e. Chinese and African American) from the relationship found in Anglo families (Bowie et al., 2013; Tao, Zhou, & Wang, 2010). Relatedly, Lugo-Candelas et al. (2015) found that while Latina mothers displayed higher levels of non-supportive parenting, this was not related to poor child functioning. It may be that children of Latina mothers are interpreting non-supportive reactions in a neutral or even positive way which helps them to develop their own self-regulation. Though further research is necessary, this finding suggests that for Latina mothers and their children, a modest level of non-supportive parenting may be beneficial to a child in developing self-regulation of his/her emotions. This pattern of findings was not found in Anglo mothers and their children. Additionally, we did not observe any significant bidirectional relationships in either of the groups in examining father non-supportive parenting.

4.3. *Study limitations*

We note three limitations of the present study. First, our small sample size of Latino fathers and mothers may have limited our ability to detect significant effects. Future research could continue our examination of emotion socialization processes in Latino mothers and fathers. Second, we did not have information regarding immigration status, cultural values, or acculturation levels of our Latino sample. Future research should examine whether acculturation levels and cultural values such as familismo/interdependence moderate and/or mediate these relationships. Third, parent emotion socialization and child behavior were both assessed utilizing parent-report questionnaires, making shared method variance a limitation.

Future research could address this by capturing either child behavior or parent emotion socialization through observational measures.

4.4. Implications for intervention

These findings have implications for child psychosocial interventions that include parental involvement, indicating that a family's ethnicity and cultural background should be taken into account both when designing and implementing programs. Clinicians working with children with ID and co-occurring internalizing disorders should consider that there may be differential risk and resilience factors based on the family's ethnicity and culture, and that mothers and fathers may differ in the extent of their supportive and non-supportive parenting. Further, what is deemed "supportive" or "non-supportive" in one cultural group may not be the same as in another, and the impact of these parenting behaviors on the child may differ. The data suggest that a standard approach to intervention may not necessarily be a good fit for all families of children with ID. Further research examining these mechanisms in Latino families is necessary in order to understand whether clinicians should be targeting specific parenting styles based on ethnicity in children with internalizing disorders. A more tailored approach to intervention may provide parents with the perception that the intervention is a better overall fit for their family and may optimize outcomes for children.

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References

- American Psychiatric Association (APA). (2000). *Diagnostic and statistical manual of mental disorders, DSM-IV* (4th ed. text revision). Washington, DC: American Psychiatric Association.
- Achenbach, T. M., & Rescorla, L. (2000). *Manual for the ASEBA preschool forms & profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families.
- Achenbach, T. M., & Rescorla, L. (2001). *Manual for the ASEBA school-age forms & profiles: An integrated system of multiinformant assessment*. Burlington, VT: University of Vermont, Research Center for Children, Youth & Families.
- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30, 217–237.
- Alegria, M., Canino, G., Rios, R., Vera, M., Calderón, J., Rusch, D., & Ortega, A. N. (2002). Mental health care for Latinos: Inequalities in use of specialty mental health services among Latinos, African Americans, and non-Latino Whites. *Psychiatric Services*, 53, 1547–1555.
- Arcia, E., Reyes-Blanes, M., & Vazquez-Montilla, E. (2000). Constructions and reconstructions: Latino parents' values for children. *Journal of Child and Family Studies*, 9, 333–350.
- Bayer, J. K., Sanson, A. V., & Hemphill, S. A. (2006). Parent influences on early childhood internalizing difficulties. *Journal of Applied Developmental Psychology*, 27, 542–559.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246.
- Blacher, J., & Baker, B. L. (2007). Positive impact of intellectual disability on families. *American Journal on Mental Retardation*, 112, 330–348.
- Blacher, J., Begum, G. F., Marcoulides, G. A., & Baker, B. L. (2013). Longitudinal perspectives of child positive impact on families: Relationship to disability and culture. *American Journal on Intellectual and Developmental Disabilities*, 118, 141–155.
- Bowie, B. H., Carrère, S., Cooke, C., Valdivia, G., McAllister, B., & Doohan, E. A. (2013). The role of culture in parents' socialization of children's emotional development. *Western Journal of Nursing Research*, 35(4), 514–533.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Beverly Hills, CA: Sage.
- Calzada, E. J., Fernandez, Y., & Cortes, D. E. (2010). Incorporating the cultural value of respeto into a framework of Latino parenting. *Cultural Diversity and Ethnic Minority Psychology*, 16, 77.
- Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development*, 16, 210–231.
- Chavira, V., Lopez, S. R., Blacher, J., & Shapiro, J. (2000). Mothers' attributions, emotions, and reactions to the problem behaviors of their children with developmental disabilities. *Journal of Child Psychology and Psychiatry*, 41, 245–252.
- Chorpita, B. F., & Barlow, D. H. (1998). The development of anxiety: The role of control in the early environment. *Psychological Bulletin*, 124, 3.
- Dallaire, D. H., & Weinraub, M. (2005). The stability of parenting behaviors over the first 6 years of life. *Early Childhood Research Quarterly*, 20(2), 201–219.
- de Falco, S., Venuti, P., Esposito, G., & Bornstein, M. H. (2009). Mother-child and father-child emotional availability in families of children with down syndrome. *Parenting Science and Practice*, 9, 198–215.
- Dekker, M. C., & Koot, H. M. (2003). DSM-IV disorders in children with borderline to moderate intellectual disability: I: Prevalence and impact. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42, 915–922.
- Denham, S. A., Bassett, H. H., & Wyatt, T. (2007). The socialization of emotional competence. In J. Grusec, & P. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 614–637). New York: Guilford Press.
- Domenech, Rodriguez, M. M., Donovan, M. R., & Crowley, S. L. (2009). Parenting styles in a cultural context: Observations of protective parenting in first-generation Latinos. *Family Process*, 48, 195–210.
- Durrett, M. E., O'Bryant, S., & Pennebaker, J. W. (1975). Child-rearing reports of white, black, and mexican-American families. *Developmental Psychology*, 11(6), 871.
- Einfeld, S. L., Ellis, L. A., & Emerson, E. (2011). Comorbidity of intellectual disability and mental disorder in children and adolescents: A systematic review. *Journal of Intellectual and Developmental Disability*, 36, 137–143.
- 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, 2227–2247.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, 9, 241–273.
- Emerson, E. (2003). Prevalence of psychiatric disorders in children and adolescents with and without intellectual disability. *Journal of Intellectual Disability Research*, 47, 51–58.

- Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 8, 430–457.
- Fabes, R. A., Eisenberg, N., & Bernzweig, J. (1990). *The coping with children's negative emotions scale: Procedures and scoring*. Arizona State University. Available from authors.
- Fabes, R. A., Poulin, R., Eisenberg, N., & Madden-Dierdich, D. (2003). The coping with negative emotions scale: Psychometric properties and relations with social competence. *Marriage and Family Review*, 34, 285–310.
- Fenning, R. M., Baker, J. K., Baker, B. L., & Crnic, K. A. (2007). Parenting children with borderline intellectual functioning: A unique risk population. *American Journal on Mental Retardation*, 112, 107–121.
- Fenning, R. M., Baker, J. K., Baker, B. L., & Crnic, K. A. (2014). Parent-child interaction over time in families of young children with borderline intellectual functioning. *Journal of Family Psychology*, 28, 324–336.
- Gamble, W. C., Ramakumar, S., & Diaz, A. (2007). Maternal and paternal similarities and differences in parenting: An examination of Mexican-American parents of young children. *Early Childhood Research Quarterly*, 22, 72–88.
- Gannotti, M. E., Handwerker, W. P., Groce, N. E., & Cruz, C. (2001). Socio cultural influences on disability status in Puerto Rican children. *Physical Therapy*, 81, 1512–1523.
- García, S. B., Perez, A. M., & Ortiz, A. A. (2000). Mexican American mothers' beliefs about disabilities: Implications for early childhood intervention. *Remedial and Special Education*, 21, 90–100.
- Gottman, J. M. (1997). *The heart of parenting: Raising an emotionally intelligent child*. NY: Simon & Schuster.
- Green, S. A., & Baker, B. L. (2011). Parent emotion expression as a predictor of child social competence: Children with or without intellectual disability. *Journal of Intellectual Disability Research*, 55, 324–338.
- Green, S. A., Berkovits, L. D., & Baker, B. L. (2015). Symptoms and development of anxiety in children with or without intellectual disability. *Journal of Clinical Child & Adolescent Psychology*, 44, 137–144.
- Halberstadt, A. G., & Lozada, F. T. (2011). Emotion development in infancy through the lens of culture. *Emotion Review*, 3(2), 158–168.
- Hammen, C., & Brennan, P. A. (2003). Severity, chronicity, and timing of maternal depression and risk for adolescent offspring diagnoses in a community sample. *Archives of General Psychiatry*, 60, 253–258.
- Harwood, R., Leyendecker, B., Carlson, V., Asencio, M., & Miller, A. (2002). Parenting among latino families in the U.S. In M. H. Bornstein (Ed.), *Handbook of parenting* (pp. 21–46). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Hastings, P. D., & De, I. (2008). Parasympathetic regulation and parental socialization of emotion: Biopsychosocial processes of adjustment in preschoolers. *Social Development*, 17, 211–238.
- Hastings, R. P. (2003). Child behaviour problems and partner mental health as correlates of stress in mothers and fathers of children with autism. *Journal of Intellectual Disability Research*, 47, 231–237.
- Hill, N. E., Bush, K. R., & Roosa, M. W. (2003). Parenting and family socialization strategies and children's mental health: low-income Mexican-American and Euro-American mothers and children. *Child Development*, 74(1), 189–204.
- Hudson, J. L., & Rapee, R. M. (2001). Parent-child interactions and anxiety disorders: An observational study. *Behaviour and Research Therapy*, 39, 1411–1427.
- Ispa, J. M., Fine, M. A., Halgunseth, L. C., Harper, S., Robinson, J., Boyce, L., . . . & Brady-Smith, C. (2004). Maternal intrusiveness, maternal warmth, and mother toddler relationship outcomes: Variations across low-income ethnic and acculturation groups. *Child Development*, 75, 1613–1631.
- Julian, T. W., McKenry, P. C., & McKelvey, M. W. (1994). Cultural variations in parenting: Perceptions of Caucasian, African-American, Hispanic, and Asian-American parents. *Family Relations*, 30–37.
- Kopp, C. B. (1989). Regulation of distress and negative emotions: A developmental view. *Developmental Psychology*, 25, 343.
- Lugo-Candelas, C. I., Harvey, E. A., & Breaux, R. P. (2015). Emotion socialization practices in Latina and European-American mothers of preschoolers with behavior problems. *Journal of Family Studies*, 21, 144–162.
- Marquis, W. A., & Baker, B. L. (2014). An examination of Anglo and Latino parenting practices: Relation to behavior problems in children with or without developmental delay. *Research in Developmental Disabilities*, 35, 383–392.
- Muthén, B. O., & Muthén, L. K. (2010). *Mplus (Version 6)*. Los Angeles, CA: Muthén & Muthén.
- Nader-Grosbois, N. (2014). Self-perception, self-regulation and metacognition in adolescents with intellectual disability. *Research in Developmental Disabilities*, 35, 1334–1348.
- Newland, R. P., & Crnic, K. A. (2011). Mother-child affect and emotion socialization processes across the late preschool period: Predictions of emerging behaviour problems. *Infant and Child Development*, 20, 371–388.
- Paczkowski, E., & Baker, B. L. (2007). Parenting children with and without developmental delay: The role of self-mastery. *Journal of Intellectual Disability Research*, 51, 435–446.
- Rodas, N. V., Zeedyk, S. M., & Baker, B. L. (2016). Unsupportive parenting and internalising behaviour problems in children with or without intellectual disability. *Journal of Intellectual Disability Research*, 60(12), 1200–1211.
- Rueda, R., Monzo, L., Shapiro, J., Gomez, J., & Blacher, J. (2005). Cultural models of transition: Latina mothers of young adults with developmental disabilities. *Exceptional Children*, 71(4), 401–414.
- Schacht, P. M., Cummings, E. M., & Davies, P. T. (2009). Fathering in family context and child adjustment: A longitudinal analysis. *Journal of Family Psychology*, 23, 790–797.
- Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology*, 57, 1–10.
- Skinner, D., & Weisner, T. S. (2007). Sociocultural studies of families of children with intellectual disabilities. *Mental Retardation and Developmental Disabilities Research Reviews*, 13, 302–313.
- Sparrow, S. S., Cicchetti, D. V., & Balla, B. A. (2005). *Vineland scales of adaptive behavior* (2nd ed.). Circle Pine, MN: American Guidance Service.
- Tao, A., Zhou, Q., & Wang, Y. (2010). Parental reactions to children's negative emotions: Prospective relations to Chinese children's psychological adjustment. *Journal of Family Psychology*, 24(2), 135.
- Tehee, E., Honan, R., & Hevey, D. (2009). Factors contributing to stress in parents of individuals with autistic spectrum disorders. *Journal of Applied Research in Intellectual Disabilities*, 22, 34–42.
- Thorndike, R. L., Hagen, E. P., & Sattler, R. L. (1986). *Stanford-Binet intelligence scale* (4th ed.). Itasca, IL: Riverside Publishing.
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1–10.
- Wilson, B. J. (1999). Entry behavior and emotion regulation abilities of developmentally delayed boys. *Developmental Psychology*, 35, 214.