

# Asian Indian Immigrant and White American Maternal Emotion Socialization and Child Socio-Emotional Functioning

Bethany L. McCord<sup>1</sup> · Vaishali V. Raval<sup>1</sup>

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**Abstract** Previous research provides an inadequate account of parental emotion socialization and its relation to child functioning among ethnic minority groups in the United States. This study compared reports of Asian Indian immigrant and White American mothers' emotion socialization and examined relations between mothers' emotion socialization and child outcomes in these two groups. Indian immigrant ( $n = 34$ ) and White American ( $n = 38$ ) mothers completed measures of child behavior problems and social competence, as well as self-report measures of two types of emotion socialization, responses to children's negative emotions and emotion expressivity. Children completed a self-report measure of social competence. Results revealed that Indian immigrant mothers were more likely than White American mothers to report responding nonsupportively to their children's negative emotions. However, reports of mothers' nonsupportive responses were not related to child outcomes in the Indian immigrant group. In the White American group, reports of mothers' nonsupportive responses were positively related to child behavior problems. Mothers' self-reported negative emotion expressivity was positively related to child behavior problems and negatively related to mother-rated child social competence for Indian immigrants, while no significant relation was found between mothers' negative emotion expressivity and child outcomes for White Americans. Moderation analyses were performed with these variables but were nonsignificant. Results are discussed in the

context of cultural influences on emotion socialization and subsequent impact on child functioning.

**Keywords** Culture · Ethnicity · Emotion socialization · Child socio-emotional functioning · Parenting

## Introduction

Parents raise their children to act in accordance with sociocultural norms, including norms of emotional experience, expression, and control. This process of shaping children's emotions is referred to as emotion socialization (ES). The sociocultural norms that drive parents' ES practices are determined by many factors, including cultural meanings of emotion expression (Markus and Kitayama 1991) and adaptations to the unique social circumstances faced by one's ethnic group (Nelson et al. 2012; Parker et al. 2012). It is important to understand variation in ES because this process fosters children's emotion regulation (ER), the ability to express and control emotions in an adaptive way. In turn, child ER is associated with important child socio-emotional outcomes, such as social competence (Eisenberg et al. 2001). Thus, a context-specific understanding of parental ES may help clarify the diverse pathways that lead to positive and negative socio-emotional outcomes for children.

Although there is an emerging cross-cultural ES literature, less research has examined ES in US ethnic minority groups. Asian immigrants have been the fastest growing US ethnic group within the past decade, with the Asian Indian immigrant population growing at a rate of 69.37 % (US Census Bureau 2012). Asian Indians' socio-cultural heritage also provides a very different cultural context to examine ES than White, middle-class Americans

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✉ Bethany L. McCord  
mccordbl@miamioh.edu

<sup>1</sup> Department of Psychology, Miami University,  
90 N. Patterson Ave., Oxford, OH 45056, USA

(Raghavan et al. 2010). Demographically, Asian Indian US immigrants represent a well-educated and upper-middle class community. Attention has been drawn to the mental health needs of this group, and research is needed to understand parental influences on child functioning in this population (Tummala-Narra et al. 2011). Moreover, few cross-ethnic studies of emotion have included Asian Indian immigrants.

Parental ES involves various methods, including parents' responses to their children's emotions, parents' own emotion expressivity, and parent–child discussions about emotions (Eisenberg et al. 1998). Surprisingly little research attention has been devoted to examining different modes of ES and their relations to child outcomes in a single study. This is true even in research with White American samples, with whom a bulk of the ES research is conducted. Parental ES may have direct effects on child socio-emotional outcomes or indirect effects through variables such as child ER or the quality of the parent–child relationship (Eisenberg et al. 1998).

Based primarily on work with White, middle class, American samples, parents' responses to children's emotions have been conceptualized as either supportive or nonsupportive, that is, as either facilitating or interfering with child ER (Eisenberg et al. 1998; Malatesta-Magai 1991). Supportive responses are emotion-focused (e.g., comforting the child), problem-focused (e.g., helping the child resolve the upsetting issue), or encourage children to express their emotions. In contrast, nonsupportive responses are punitive (e.g., verbal or physical punishment) or minimizing (e.g., minimizing the significance of the child's emotion). In addition, O'Neal and Magai (2005) have examined mothers' neglecting responses (e.g., ignoring the child's emotion), which are considered nonsupportive, and magnifying and overriding responses, which have not been conceptualized as exclusively supportive or nonsupportive. Magnifying is defined as "when the child expresses an emotion and the parent subsequently responds to the child by expressing the same emotion with equal or stronger intensity" (O'Neal and Magai 2005; p. 468). Slight changes in the wording of these items can give rise to non-punitive (e.g., "I got upset for my child") and punitive (e.g., "I got upset") interpretations by respondents, and previous studies have assessed different combinations of these items (Garside 2003; O'Neal and Magai 2005). Overriding is defined as "a parent silencing a child's expressed emotion by dismissing or distracting the child" (O'Neal and Magai 2005; p. 468). This includes dismissive responses that may be nonsupportive, inhibiting further expression or discussion of children's emotions, or distraction responses that may be supportive and are intended to comfort the child. Some studies link overriding responses with

negative child outcomes (Garside and Klimes-Dougan 2002; O'Neal and Magai 2005).

Parents also socialize children's emotions by modeling their own emotion expressivity. Parental positive emotion expressivity is conceptualized as parents' expression of positive emotions in the family context. Previous studies with White American samples have shown that parental positive emotion expressivity is related to positive child socio-emotional outcomes, such as high social competence (Eisenberg et al. 2001). Overall, parental negative emotion expressivity, conceptualized as parents' expression of negative emotions in the family, has been shown to have a detrimental impact on child socio-emotional functioning. However, parental negative emotion expressivity has a more nuanced effect on child functioning than positive expressivity. Factors such as whether parents' negative emotions are directed at the child or others and whether the negative emotions are dominant (e.g., anger) or submissive (e.g., sadness) affect the impact of negative expressivity on child outcomes (Eisenberg et al. 1998). Furthermore, parental negative expressivity can have a beneficial impact on child functioning when parents use these opportunities to teach children about emotions (Eisenberg et al. 1998).

A bulk of the ES research has been conducted with White, middle-class families in the US and other Western cultures. In general, these groups value independence and encourage the expression of emotions as an exercise of agency, autonomy, and self-expression, and as a strategy to ensure that one's needs are met (Kağıtçıbaşı 1996; Markus and Kitayama 1991). Individuals in these cultural groups are more likely to experience and express socially disengaging emotions (e.g., pride, anger) than other cultural groups, and parental ES practices are likely to encourage emotion expression generally (Keller and Otto 2009; Kitayama et al. 2006). In contrast, in Asian and Asian American families, interdependence or inherent connectedness of individuals is generally valued (Kağıtçıbaşı 1996; Markus and Kitayama 1991). In this context, emotion expression is encouraged when it serves the purpose of maintaining relationships, but the expression of socially disengaging emotions is discouraged (Kitayama et al. 2006). Thus, socialization practices are likely to teach children to control socially disengaging emotions.

Previous investigations have provided evidence for cross-cultural differences in parental ES. Raval et al. (2013) found that mothers in India were less likely to report responding to their children's negative emotions with expressive encouragement and problem-solving than were White American mothers. Moreover, Indian mothers reported responding to their children's negative emotions by "making the child understand" (Raval and Martini 2011) the consequences of emotional displays. Overall, Indian mothers were teaching children to accept the emotion-

eliciting situation rather than utilize strategies to resolve the situation. Camras et al. (2008) examined Chinese, Chinese American, and White American mothers' emotion expressivity and found that White American mothers reported higher levels of positive emotion expressivity than Chinese mothers, but Chinese American mothers' positive expressivity was not significantly different from the other two groups. In another study of Chinese families, parental negative dominant expressivity was related to high child externalizing problems and low social competence, and the opposite pattern of results was found for parental positive expressivity (Chen et al. 2011). Together, these findings (Camras et al. 2008; Chen et al. 2011) provide evidence for cross-cultural mean differences in parental emotion expressivity but suggest that the impact of parental expressivity on child socio-emotional functioning may be similar across cultures.

Previous research has also provided evidence of parental ES varying within cultures by ethnicity and immigrant status. In contrast to previous studies (e.g., Chen et al. 2011), Morelen et al. (2013) found different relationships between parental positive expressivity and child outcomes across ethnic groups. Asian American college students retrospectively reported lower levels of parental positive expressivity than African American and White American students. Whereas positive expressivity was negatively related to ER difficulties for White American students and psychopathology for African American students, it was not related to ER difficulties or psychopathology for Asian American students. Nelson et al. (2012) examined African American and European American mothers' self-reported responses to their children's negative emotions and reports of child outcomes. For African American children, mothers' expressive encouragement in response to children's emotions was associated with teachers' reports of low academic and social-emotional competence. In contrast, mothers' problem-focused responses were positively associated with child competence for European American children. In a focus group study of African American, European American, and Lumbee Native American parents' beliefs about emotions, African American parents in particular supported children's positive and negative emotion expression to prevent emotions from building up and to gain insight into children's experiences (Parker et al. 2012). In addition, Lumbee Native Americans and some African Americans believed that parents should always know what children are feeling so that they can help children process their emotions. In another study, Mexican–American mothers (born in the US or moved to the US before age 10) and Mexican immigrant mothers (moved to the US after age 12) used dolls to create stories with their children about parent–child separation, parent–child reunion, child–child conflict, and family loss

(Cervantes 2002). Mexican–American mothers were more likely to label emotions, whereas Mexican immigrant mothers were more likely to provide explanations for expressed emotions, which the author suggests may be related to Mexican immigrant mothers' socialization of *familismo* and *respeto* in their children.

Few studies of cross-ethnic differences in ES have included Asian Indian immigrants. Asian immigrants in the US often strive to uphold the traditional cultural value systems of their countries of origin (Kim 2009; Raghavan et al. 2010). In this effort, Asian immigrant parents may more strongly uphold these traditional values than Asian parents living in Asia, who are affected by forces of globalization (Raval et al. 2013). Wang (2012) examined differences in Chinese and Chinese immigrant mothers' talk about emotions with their children during a storytelling task and during discussions of shared experiences. Compared to Chinese mothers, Chinese immigrant mothers were less likely to attribute emotions to their children when discussing past experiences but were more likely to attribute emotions to the main character during the storytelling task. In both tasks, Chinese immigrant mothers were less likely to explain the experience of emotions. Overall, Chinese immigrant mothers' ES was more consistent with traditional Chinese cultural norms. These results are interpreted as evidence of the dynamic relationship between culture and ES and of Chinese immigrant mothers striving to uphold traditional Chinese norms.

Finally, variation in norms of emotion expression across US ethnic groups may be adaptive. García Coll et al. (1996) proposed an integrative model of ethnic minority children's developmental competencies that highlights the effects of social class and ethnicity, and ensuing racism and discrimination, on the characteristics of adaptive development. According to this model, ethnic variation in parental ES may reflect a combination of upholding traditional cultural value systems and adaptation to experiences of racism and discrimination. Consistent with this model, one study found that Asian Indian immigrant mothers' beliefs about emotions represented a blend of Indian cultural values and experiences related to immigration (Fishman et al. 2014). Indian immigrant mothers considered negative emotions inevitable and described the goal of "moving on" from these emotions. In contrast, White American mothers viewed experiences of negative emotions as teaching opportunities and responded to children with comforting and problem solving.

The current study examined differences in mothers' reports of their responses to children's negative emotions and mothers' reports of their own emotion expressivity in two ethnic groups. Consistent with a focus on teaching children to control negative emotions, Indian immigrant

mothers were expected to report less supportive and more nonsupportive responses to children's negative emotions compared to White American mothers. Indian immigrant mothers were also expected to report lower levels of positive and negative emotion expressivity than White American mothers. In addition, this study investigated the relations of these two parental ES behaviors to child outcomes (child behavior problems rated by mothers and child social competence rated by mothers and children) and compared these relationships between the two groups. It was hypothesized that mothers' reports of supportive responses to children's emotions and positive emotion expressivity would be negatively related to reports of child behavior problems and positively related to reports of child social competence. It was expected that mothers' reports of nonsupportive responses and negative expressivity would show the opposite pattern of results. These relationships were expected to be stronger in the White American group than in the Indian immigrant group.

## Method

### Participants

Thirty-four Indian immigrant mothers (age  $M = 39.11$ ,  $SD = 3.07$ ) and 38 White American mothers (age  $M = 43.02$ ,  $SD = 4.49$ ) participated in this study with one of their children (59.0 and 42.6 % female, respectively) between the ages of 8 and 16 years (age  $M = 11.21$ ,  $SD = 1.77$ ). Overall, a majority of mothers in both groups were married and had completed a college degree or higher level of education. A majority of the families had an annual family income higher than \$48,000 (median annual household income in Ohio is \$48,246; US Census Bureau 2014), indicating middle to upper middle class status. The Indian immigrant mothers were all first generation immigrants and had lived in the US for an average of 13.26 years ( $SD = 4.20$ ), ranging from 4 to 21 years. Indian immigrant mothers completed the Suinn-Lew Asian Self-Identity Acculturation Scale (Suinn et al. 1992), which was modified to reflect Asian Indian culture specifically ( $\alpha = .74$ ). Indian mothers' mean level of acculturation was 2.74 ( $SD = .35$ ) on a 5-point scale ( $1 = \text{preference for Asian Indian culture}$ ,  $5 = \text{preference for Western culture}$ ). This mean and standard deviation indicates a moderate level of acculturation to US culture with little variability. There were no significant correlations between Indian immigrant mothers' acculturation scores and their reports of ES behaviors, perhaps due to the low variability in scores. Thus, acculturation was not included in further analyses.

### Procedure

This study was part of a larger project about Indian immigrant and White American mothers' ES strategies and their children's socio-emotional functioning. Mothers and children were recruited through community events, word of mouth, and flyers distributed to middle and high schools in three school districts, to Hindu and Jain temples, and to South Asian grocery stores and restaurants. Interested mothers contacted the researchers, and interviews were scheduled at the university or at participants' homes. All participating mothers and children were fluent speakers of English, and all measures were completed in English. Informed consent and assent were obtained from mothers and children, respectively. During the data collection visit, mothers completed an interview (not relevant for present analyses), and children completed the Home and Community Social Behavior Scale (Merrell et al. 2001). Mothers completed all the measures used in the present study online within 10 days of the visit, including a demographics questionnaire, the Responses to Children's Emotions scale (Magai 1996), the Self-Expressiveness in the Family Questionnaire (Halberstadt et al. 1995), the Child Behavior Checklist for ages 6–18 (Achenbach and Rescorla 2001), and the Home and Community Social Behavior Scale (Merrell et al. 2001).

### Measures

#### *Responses to Children's Emotions Scale (RTC)*

The RTC (Magai 1996) is a self-report measure of parents' responses to their children's experiences of sadness, anger, and fear. For example, in reference to children's sadness, the RTC asks parents, "When your child was sad or feeling down over the past month, how often did you respond in these ways?" For each negative emotion, parents rate 15 items on a 5-point scale ( $1 = \text{Never}$ ,  $5 = \text{Very often}$ ). The RTC measures the following five types of responses to children's negative emotions: reward, magnify, punish, neglect, and override. The reward subscale assesses comforting and problem-solving responses (9 items; e.g., "I helped my child deal with the issue that made her/him sad"). In the current study, the reward subscale was used as an indicator of mothers' supportive responses to children's emotions. The magnify subscale refers to mothers becoming distressed in response to their children's emotions or experiencing the same negative emotion as their children (9 items; e.g., "I got very mad"). The magnifying responses assessed in the current study were primarily punitive in nature and were thus conceptualized as nonsupportive. The punish subscale measures mothers' punitive responses to children's

emotions (9 items; e.g., “I told my child that s/he was acting younger than her/his age”). The neglect subscale assesses mothers ignoring children’s emotions (9 items; e.g., “I did not pay attention to her/his fear”). These three subscales were initially combined to create a composite of mothers’ nonsupportive responses to children’s negative emotions. However, in both ethnic groups this composite was positively correlated with the override subscale, which measures distracting and dismissing strategies (9 items; e.g., “I told her/him to cheer up”), and demonstrated a similar pattern of ethnic group differences and correlations with other study variables as the override subscale. Thus, the magnify, punish, neglect, and override subscales were combined to create a composite of nonsupportive maternal responses to children’s negative emotions (36 items). O’Neal and Magai (2005) report moderate to high internal consistencies for the five subscales. In the current study, internal consistencies for each of these subscales were moderate to high for Indian immigrant mothers (reward,  $\alpha = .89$ ; override  $\alpha = .84$ ; neglect  $\alpha = .64$ ; magnify  $\alpha = .81$ ; punish  $\alpha = .75$ ) and White American mothers (reward,  $\alpha = .81$ ; override  $\alpha = .88$ ; neglect  $\alpha = .68$ ; magnify  $\alpha = .78$ ; punish  $\alpha = .73$ ). Furthermore, the composite of nonsupportive responses constructed in the current study demonstrated high internal consistencies for Indian immigrant ( $\alpha = .86$ ) and White American ( $\alpha = .88$ ) mothers.

#### *Self-Expressiveness in the Family Questionnaire (SEFQ)*

The SEFQ (Halberstadt et al. 1995) assesses parents’ perceptions of their positive and negative emotion expressivity toward their families in general (rather than toward their children specifically). Parents are asked to indicate how often they express themselves when the situation described in each item occurs in their families. Items were rated on a 9-point scale ( $1 = \text{not at all frequently}$ ,  $9 = \text{very frequently}$ ). The SEFQ consists of a positive expressivity scale (23 items; e.g., “Praising someone for good work”) and a negative expressivity scale (17 items; e.g., “Quarreling with a family member”). Although negative emotion expressivity can be further broken down into dominant (e.g., anger) and submissive (e.g., sadness) subscales, Halberstadt et al. (1995) recommend the two-factor solution for most purposes, which was used in the current study. Halberstadt et al. (1995) report high internal consistencies for the positive and negative subscales. In the current study, the positive emotion expressivity subscale demonstrated high internal consistencies for Indian immigrant ( $\alpha = .94$ ) and White American mothers ( $\alpha = .90$ ), as did the negative emotion expressivity subscale ( $\alpha = .89$  and  $\alpha = .94$ , respectively).

#### *Child Behavior Checklist (CBCL)*

The CBCL for ages 6–18 (Achenbach and Rescorla 2001) assesses children’s internalizing and externalizing behavior. The internalizing scale is comprised of anxious/depressed, withdrawn/depressed, and somatic complaints subscales. The externalizing scale is comprised of rule-breaking behavior and aggressive behavior subscales. Mothers rate items on a 3-point scale ( $0 = \text{Not at all true/Does not happen}$ ,  $1 = \text{Somewhat true/Happens sometimes}$ ,  $2 = \text{Very true/Happens very frequently}$ ). Achenbach and Rescorla (2001) report good internal consistency for the internalizing and externalizing scales. The scales were highly correlated,  $r = .87$ ,  $p < .001$  and  $r = .66$ ,  $p < .001$ , for the Indian immigrant and White American samples, respectively. Thus, the combined measure was used in all remaining analyses, which showed high internal consistency in the Indian immigrant ( $\alpha = .97$ ) and White American groups ( $\alpha = .92$ ).

#### *Home and Community Social Behavior Scale (HCSBS)*

Mothers and children completed the HCSBS (Merrell et al. 2001), a measure of children’s social competence. Mothers rate 32 items referencing children’s social behaviors in the past 3 months (e.g., “Follows family or community rules”) on a 5-point scale ( $1 = \text{Never}$ ,  $5 = \text{Frequently}$ ). Children rate the same items in reference to their own behavior (e.g., “I am good at starting or joining in conversations with other kids”). Merrell et al. (2001) report high internal consistency for the HCSBS ( $\alpha$  ranging .96–.98). The internal consistencies for this measure in the current study were as follows: Indian immigrant mother report ( $\alpha = .95$ ), Indian immigrant child report ( $\alpha = .88$ ), White American mother report ( $\alpha = .96$ ), and White American child report ( $\alpha = .94$ ).

## Results

Percent missing data across variables ranged from 1.4 to 21.9 %. The pattern of missing data was examined to determine if data were missing systematically or at random. As  $t$  tests indicated that a number of variables were related to missingness, and as Little’s MCAR test (Little 1988) was nonsignificant,  $\chi^2(64) = 65.51$ ,  $p = .424$ , data were considered to be missing at random (MAR). Following current guidelines for managing MAR data (Graham 2009), multiple imputation (MI) was used. Key study variables and other variables that were related to missingness were included in the MI model. Twenty datasets were generated using MI, and means for each variable were calculated across the 20 datasets, creating a single dataset with no

missing data. In addition, an outlier in the White American group for self-report child social competence that was more than three standard deviations below the mean for White American children was removed.

A one-way MANCOVA was performed to examine differences in Indian immigrant and White American mothers' reports of their responses to their children's negative emotions and reports of their own emotion expressivity in their families. Child age was included as a covariate due to the wide age range of children in our sample. Appropriate use of MANCOVA requires that the correlation among dependent variables be equal between groups (Mayers 2013). This assumption was tested using Box's M test for equality of variance-covariance matrices. This test was nonsignificant at the  $p < .001$  level, Box's  $M = 22.95$ ,  $p = .018$ , supporting the assumption of homogeneity of variance-covariance matrices. Furthermore, Levene's test supported the assumption of between-group homogeneity of variance. This test was nonsignificant at the  $p < .05$  level for all DVs.

Results showed a significant multivariate effect for ethnicity, Pillai's Trace = .452,  $F(4, 65) = 13.41$ ,  $p < .001$ . There were two significant univariate effects for ethnicity. As hypothesized, compared to White American mothers, Indian immigrant mothers were more likely to report nonsupportive responses to children's negative emotions,  $F(1, 68) = 42.00$ ,  $p < .001$ , Partial  $\eta^2 = .382$ , though there was no group difference in reports of mothers' supportive responses. Also partially consistent with hypotheses, White American mothers reported demonstrating higher levels of positive expressivity in their families than Indian immigrant mothers,  $F(1, 68) = 4.89$ ,  $p = .030$ , Partial  $\eta^2 = .067$ , though there was no group difference in reports of negative emotion expressivity. Group means and standard deviations are provided in Table 1. Item means are presented for the independent variables, and scale means are presented for the dependent variables.

Bivariate correlations were examined among all key study variables for each ethnicity separately to determine whether these relationships differed between groups (see Table 2). Results revealed that Indian immigrant mothers' reports of negative emotion expressivity were positively correlated with their reports of child behavior problems,  $r(32) = .43$ ,  $p = .016$ , and negatively correlated with their reports of child social competence,  $r(32) = -.36$ ,  $p = .039$ . For the White American group, mothers' reports of negative expressivity showed only a nonsignificant trend relating to child behavior problems,  $r(36) = .29$ ,  $p = .075$ . In contrast, mothers' reports of nonsupportive responses to their children's negative emotions were positively related to child behavior problems for White Americans,  $r(36) = .33$ ,  $p = .044$ , but were unrelated to child outcomes for Indian immigrants. Against

hypotheses, mothers' reports of supportive responses were negatively correlated with children's self-reported social competence in the White American group,  $r(35) = -.38$ ,  $p = .050$ , and were not significantly related to child social competence in the Indian immigrant group. Mothers' ratings of child social competence were significantly negatively correlated with their ratings of child behavior problems for Indian immigrants,  $r(32) = -.44$ ,  $p = .010$ , and White Americans,  $r(36) = -.50$ ,  $p = .002$ . Finally, although no hypotheses were made regarding interrelations of the four ES behaviors, results showed significant differences in these relationships between groups. In the White American group, but not in the Indian immigrant group, reports of negative emotion expressivity were strongly positively correlated with mothers' nonsupportive responses to children's negative emotions,  $r(36) = .53$ ,  $p = .001$ , and with positive emotion expressivity,  $r(36) = .56$ ,  $p < .001$ . These relationships suggest that White American mothers reported a more global pattern of ES behaviors, reporting either high or low levels of socialization behaviors across the board, whereas Indian immigrant mothers reported a more differentiated pattern of ES behaviors.

Given that the relationships between the ES variables and child behavior problems differed between ethnic groups, two exploratory moderation analyses were performed with these variables. In Model 1, ethnicity was tested as a potential moderator of the relation between reports of mothers' nonsupportive responses to children's negative emotions and child behavior problems using hierarchical linear regression. Mean-centered mothers' nonsupportive responses and dummy coded ethnicity were entered in the first block, and the interaction term was entered in the second block. In Model 2, ethnicity was tested as a possible moderator of the relation between reports of mothers' negative emotion expressivity and child behavior problems using the same hierarchical linear modeling approach. The interaction terms in each of these models were nonsignificant, indicating that ethnicity did not moderate the relation between mothers' reports of these two ES strategies and child behavior problems. The results of these regression analyses are summarized in Table 3.

## Discussion

The broader aims of this study were to examine Asian Indian immigrant and White American mothers' reported responses to children's negative emotions and emotion expressivity, and to compare the relations of these two ES approaches with reports of child outcomes between the two ethnic groups. The developing cross-cultural ES literature suggests that Indian immigrant mothers would socialize their children to control expressions of negative emotions

**Table 1** Means and standard deviations by ethnicity

	Indian immigrant		White American	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Supportive responses	4.35	.65	4.56	.45
Nonsupportive responses	2.31	.36	1.77	.34
Positive expressivity	6.60	1.31	7.17	.82
Negative expressivity	4.14	1.14	3.93	1.38
Child behavior problems	10.95	9.47	13.22	10.27
Self-report child social competence	135.65	13.81	130.81	15.84
Mother-report child social competence	136.65	15.14	132.15	15.34

**Table 2** Bivariate correlations by ethnicity

	1	2	3	4	5	6	7
1. Supportive responses	–	.12	.05	–.34	–.28	.07	.28
2. Nonsupportive responses	.10	–	–.17	–.07	.05	.14	–.20
3. Positive expressivity	.12	.32	–	.22	–.05	.33	.13
4. Negative expressivity	.13	.53**	.56***	–	.43*	.01	–.36*
5. Child behavior problems	.05	.33*	.23	.29	–	.25	–.44*
6. Self-report child social competence	–.38*	–.33	–.13	–.18	–.30	–	.19
7. Mother-report child social competence	.00	–.14	.02	–.04	–.50**	.17	–

The correlations above the diagonal are for the Indian immigrant group; correlations below the diagonal are for the White American group

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

**Table 3** Hierarchical linear regression analyses testing ethnicity as a moderator of the relationship between mother ES and child behavior problems

	Child behavior problems			
	<i>R</i> <sup>2</sup>	<i>F</i>	$\beta$	<i>t</i>
<i>Model 1</i>				
Step 1 model summary	.03	1.05		
Ethnicity			–.21	–1.33
Nonsupportive responses			.20	1.29
Step 2 model summary	.04	.91		
Ethnicity × nonsupportive responses			–.16	–.80
<i>Model 2</i>				
Step 1 model summary	.11	4.18		
Ethnicity			–.02	–.15
Negative expressivity			.34	2.89
Step 2 model summary	.14	3.58		
Ethnicity × negative expressivity			.20	1.49

within the broader context of familial interdependence. Consistent with this notion, the current study found that Indian immigrant mothers were more likely to report nonsupportive responses to children’s negative emotions than White American mothers. Interestingly, mothers’ nonsupportive responses were not related to child outcomes

for the Indian immigrant group. Fishman et al. (2014) found that Indian mothers considered negative emotions to be inevitable and wished to teach their children to “move on” in response to negative emotions. These mothers emphasized a practical approach towards emotions and aimed to teach their children to not let emotions disrupt their daily activities and relationships. In light of these findings, it would be useful to determine whether Indian immigrant mothers’ nonsupportive responses in the present study may be intended to facilitate “moving on” from children’s negative emotions. Future research may include open-ended interviews with targeted questions to provide further understanding of the roles that nonsupportive responses play in Indian immigrant mothers’ ES.

Results also supported the hypothesis that Indian immigrant mothers would report lower levels of positive emotion expressivity than White American mothers. This hypothesis was based on previous findings of lower levels of mother-reported and child-reported parental positive emotion expressivity in Asian and Asian American families compared to White American families (e.g., Camras et al. 2008; Morelen et al. 2013). However, against hypotheses, Indian immigrant mothers did not report exhibiting lower levels of negative emotion expressivity than White American mothers. This hypothesized mean difference was based on the expectation that Indian immigrant mothers may wish to model controlling expressions of

socially disengaging emotions, whereas White American mothers may desire to model communicating one's needs and feelings. A power analysis using G\*Power 3.1 (Faul et al. 2009) indicated that power in the current study was sufficient to detect this univariate effect. One potential explanation is that the Indian immigrant mothers in this study were moderately acculturated to US culture. The expected mean difference in negative emotion expressivity may have been reduced as these mothers became more acculturated to US culture. Although these findings suggest that acculturation may have reduced mean differences in emotion expressivity, restricted variance in the measure of acculturation in the current study ( $s^2 = .13$ ) interfered with potential statistical analyses of the impact of acculturation on mother ES variables.

Bivariate correlations indicated that, as expected, reports of mothers' nonsupportive responses to their children's negative emotions were positively related to mother-rated child behavior problems in the White American group. This finding is consistent with a bulk of the literature that has documented links between mothers' nonsupportive ES behaviors and child behavior problems in middle-class White American samples (e.g., Spinrad et al. 2007; Valiente et al. 2006). Interestingly, mothers' reports of nonsupportive responses were unrelated to child outcomes in the Indian immigrant group. This finding is somewhat surprising given the link between these variables in a middle-class sample in India (Raval et al. 2014). One potential explanation is that Raval et al. (2014) employed different self-report measures of mother ES than the current study. Specifically, the authors utilized a modified version of the Coping with Children's Negative Emotion's Scale (CCNES; Fabes et al. 1990) that included culture-specific parental ES behaviors. The parental nonsupportive response composite included punitive and minimizing responses from the original CCNES, along with culture-specific responses such as scolding and parental refusal to talk to the child. Given the inclusion of culture-specific responses, the measure used by Raval et al. (2014) may have had increased relevance for Indian families, and thus, these responses may be implicated in child functioning. In addition, as discussed above, the available literature suggests that ES behavior and its relation to child outcomes in Indian immigrant families may differ from both White middle-class American families and Indian families. For example, Asian Indian immigrant mothers' emotion beliefs have been found to reflect traditional Indian values as well as experiences related to immigration (Fishman et al. 2014). As mother ES behavior is strongly related to mother emotion beliefs (Eisenberg et al. 1998), Indian immigrant mothers' unique emotion beliefs suggest that their ES practices and their children's related outcomes may also differ from White American and Indian families.

The expected positive relation between reports of mothers' supportive responses to children's emotions and child social competence was not found for the Indian immigrant or White American group, regardless of whether mother or child ratings of child social competence were used. Similarly, the expected negative relation between reports of mothers' supportive responses to children's negative emotions and child behavior problems was not significant for either group. This is believed to be due to restricted variance in mothers' reports of supportive responses to children's emotions ( $s^2 = .20$  and  $.42$  for White American and Indian immigrant samples, respectively). Future studies should obtain reports of mothers' responses to children's emotions from multiple informants (e.g., children, fathers) or use observational methods to help avoid the ceiling effect on mothers' supportive responses observed in the current study.

Mothers' positive emotion expressivity also failed to show the expected relations to child outcomes. Positive and negative emotion expressivity were strongly positively related in the White American group, indicating that White American mothers who reported high levels of positive emotion expressivity also tended to report high levels of negative emotion expressivity. This global pattern of emotion expressivity may explain why neither positive nor negative emotion expressivity was significantly related to child outcomes in the White American group. Conversely, in the Indian immigrant group, reports of mothers' positive emotion expressivity and negative emotion expressivity were unrelated. Mothers' reports of negative emotion expressivity were positively related to child behavior problems and negatively related to mother-rated child social competence in this group. This finding was consistent with previous research with White American and Chinese samples (Chen et al. 2011; Eisenberg et al. 2001, 2003) that shows implications of mothers' negative expressivity for maladaptive child outcomes. In summary, in the White American group, reports of mothers' nonsupportive responses, but not mothers' negative emotion expressivity, were related to child behavior problems. In the Indian immigrant group, these findings were reversed such that reports of mothers' negative emotion expressivity, but not mothers' nonsupportive responses, were related to child behavior problems and social competence. If these findings are replicated with studies that include a larger sample, prospective longitudinal design, observational methods, and multiple informants, they suggest that the relevance of different modes of parental ES may vary across different cultural groups. Parents' indirect ES approaches (e.g., modeling of their own emotions) may be more relevant than their direct responses to their children's emotions in contributing to child functioning in certain cultural groups. Further research is needed that examines the relation



between different modes of ES and child functioning in diverse ethnic and cultural groups.

In addition to computing bivariate correlations, we also tested for moderation using multiple regression. Statistical explanations may help understand the null moderation findings. McClelland and Judd (1993) outline several reasons why moderation effects are difficult to detect in quasi-experimental studies compared to experiments, such as having greater overall model error variance, having greater measurement error of each of the variables that form the interaction term, and being theoretically constrained to ordinal interactions. Moreover, results of a power analysis using G\*Power (Faul et al. 2009) with three predictors (1 predictor, 1 moderator, 1 interaction term) with  $\alpha$  level set to .05 indicated that the current sample size was insufficient to detect a significant interaction effect of medium size. Future studies testing similar models should use adequately large sample sizes to detect moderation. Alternatively, theoretical explanations may also help explain the null moderation findings. We used ethnic identification (White American versus Asian Indian immigrant) as a moderator, which may not adequately account for important cultural differences that contribute to ES behavior. Central theorists have justified the need for an understanding of ethnic and cultural differences that goes beyond analyzing the effect of ethnicity on study variables (García Coll et al. 1996). The relation between maternal ES practices and important child outcomes may be moderated by multiple cultural variables that are not well represented by participants' ethnic identification. Future studies with larger sample sizes could test this hypothesis by testing models with multiple moderators that incorporate important cultural variables rather than testing the simple two-way interaction of ethnicity and the predictor. Specifically, parents' beliefs about emotions, children's perceptions of the normativity of their parents' ES behaviors, and cultural norms of appropriateness of emotional expression are all promising explanatory variables for more complex models.

The findings of the current study are generalizable to demographically similar Asian Indian immigrants and White Americans. The average income and education levels of the Indian immigrant sample were comparable to the reported average levels of Indian families in the US (US Census Bureau 2012). Acculturation data obtained from Indian immigrant participants indicated that this sample was moderately acculturated to US culture. Thus, these findings are not generalizable to Indian immigrant families who are of lower socio-economic status or who are less acculturated. Similarly, the average income and education levels of the White American sample were consistent with middle-class norms in Ohio (US Census Bureau 2014). These findings are not generalizable to upper- or working-class American families or to other ethnic minority groups.

In the present study, internal consistency of all measures was adequate for both ethnic groups. However, these measures have been created by scholars in developmental and clinical psychology in the West, and primarily used samples that did not include or under-sampled Asian Indian immigrant individuals. Therefore, it is likely that these measures do not adequately capture study constructs for the Indian immigrant group. Qualitative research methods may be used in future research to gather information about culture-specific ES behaviors that may help create new measures or modify existing measures of parental ES and child functioning for use with diverse families. Relatedly, it is possible that the Indian immigrant and White American mothers in this study had different response styles (e.g., tendency to over- or under-report), or that they interpreted items differently. Utilizing multiple methods, including observational procedures, may help address this limitation in future research. Finally, a substantial majority of studies in the parental ES literature rely on questionnaire measures, in particular, mother reports. Similarly, the present study is limited by overreliance on data generated by mother-report questionnaires. Studies in this body of literature, including the current study, would benefit from utilization of observational data and data from multiple informants.

In conclusion, despite limitations, this study makes important contributions to the developing literature on maternal ES and its relation to child functioning in Asian Indian immigrant families and has broader implications for the literature on ethnicity and ES. Consistent with previous findings suggesting that Indian immigrant mothers would socialize their children to control the expression of negative emotions, Indian immigrant mothers in this study were more likely than White American mothers to report responding nonsupportively to children's negative emotions. Interestingly, these nonsupportive responses to children's emotions were unrelated to child outcomes in the Indian immigrant group. It may be that specific parental ES behaviors are related to maladaptive child outcomes in one cultural group but not another. If replicated, such findings call for broadening ES theory to include the influence of culture and ethnicity more centrally, and for future research to examine processes that help explain the complex influence of culture on ES behaviors and child outcomes.

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## References

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms & profiles*. Burlington: ASEBA.

- Camras, L., Kolmodin, K., & Chen, Y. (2008). Mothers' self-reported emotional expression in Mainland Chinese, Chinese American and European American families. *International Journal of Behavioral Development, 32*, 459–463.
- Chen, S. H., Zhou, Q., Eisenberg, N., Valiente, C., & Wang, Y. (2011). Parental expressivity and parenting styles in Chinese families: Prospective and unique relations to children's psychological adjustment. *Parenting, 11*, 288–307.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry, 9*, 241–273.
- Eisenberg, N., Gershoff, E. T., Fabes, R. A., Shepard, S. A., Cumberland, A. J., Losoya, S. H., et al. (2001). Mothers' emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology, 37*, 475–490.
- Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., et al. (2003). Longitudinal relations among parental emotional expressivity, children's regulation, and quality of socioemotional functioning. *Developmental Psychology, 39*, 3–19.
- Fabes, R. A., Eisenberg, N., & Bernzweig, J. (1990). *The coping with Children's Negative Emotions Scale: Procedures and scoring*. Tempe: Arizona State University.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149–1160.
- Fishman, J. L., Raval, V. V., Daga, S. S., & Raj, S. P. (2014). Meta-emotion philosophy among Asian Indian immigrant mothers in the United States. *Qualitative Health Research, 24*, 875–889.
- García Coll, C., Crnic, K., Lamberty, G., Wasik, B. H., Jenkins, R., García, H. V., & McAdoo, H. P. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67*, 1891–1914.
- Garside, R. B. (2003). *Parental socialization of discrete positive and negative emotions: Implications for emotional functioning* (Unpublished doctoral dissertation). The Catholic University of America, Washington DC.
- Garside, R. B., & Klimes-Dougan, B. (2002). Socialization of discrete negative emotions: Gender differences and links with psychological distress. *Sex Roles, 47*, 115–128.
- Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology, 60*, 549–576.
- Halberstadt, A. G., Cassidy, J., Stifter, C. A., Parke, R. D., & Fox, N. A. (1995). Self-expressiveness within the family context: Psychometric support for a new measure. *Psychological Assessment, 7*, 93–103.
- Kağıtçıbaşı, C. (1996). The autonomous-relational self. *European Psychologist, 1*, 180–186.
- Keller, H., & Otto, H. (2009). The cultural socialization of emotion regulation during infancy. *Journal of Cross-Cultural Psychology, 40*, 996–1011.
- Kim, B. K. (2009). Acculturation and enculturation of Asian Americans: A primer. In N. Tewari & A. N. Alvarez (Eds.), *Asian American psychology: Current perspectives* (pp. 97–112). New York, NY: Routledge/Taylor & Francis Group.
- Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology, 91*, 890–903.
- Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association, 83*, 1198–1202.
- Magai, C. (1996). Emotions as a child. Unpublished manuscript, Long Island University, Brooklyn.
- Malatesta-Magai, C. (1991). Emotional socialization: Its role in personality and developmental psychopathology. In D. Cicchetti & S. L. Toth (Eds.), *Internalizing and externalizing expressions of dysfunction. Rochester symposium on developmental psychopathology* (Vol. 2, pp. 203–224). Hillsdale, NJ: Lawrence Erlbaum.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.
- Mayers, A. (2013). Multivariate analyses. In *Introduction to statistics and SPSS in psychology* (pp. 318–361). Upper Saddle River, NJ: Pearson Education.
- McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin, 114*, 376–390.
- Merrell, K. W., Streeter, A. L., Boelter, E. W., Caldarella, P., & Gentry, A. (2001). Validity of the Home and Community Social Behavior Scales: Comparisons with five behavior-rating scales. *Psychology in the Schools, 38*, 313–325.
- Morelen, D., Jacob, M. L., Suveg, C., Jones, A., & Thomassin, K. (2013). Family emotion expressivity, emotion regulation, and the link to psychopathology: Examination across race. *British Journal of Psychology, 104*, 149–166.
- Nelson, J. A., Leerkes, E. M., Perry, N. B., O'Brien, M., Calkins, S. D., & Marcovitch, S. (2012). European-American and African-American mothers' emotion socialization practices relate differently to their children's academic and social-emotional competence. *Social Development, 22*, 485–498.
- O'Neal, C. R., & Magai, C. (2005). Do parents respond in different ways when children feel different emotions? The emotional context of parenting. *Development and Psychopathology, 17*, 467–487.
- Parker, A. E., Halberstadt, A. G., Dunsmore, J. C., Townley, G., Bryant, A. Jr, Thompson, J. A., & Beale, K. S. (2012). "Emotions are a window into one's heart": A qualitative analysis of parental beliefs about children's emotions across three ethnic groups. *Monographs of the Society for Research in Child Development, 77*, 1–144.
- Raghavan, C. S., Harkness, S., & Super, C. M. (2010). Parental ethnotheories in the context of immigration: Asian Indian immigrant and Euro-American mothers and daughters in an American town. *Journal of Cross-Cultural Psychology, 41*, 617–632.
- Raval, V. V., & Martini, T. S. (2011). "Making the child understand": Socialization of emotion in urban India. *Journal of Family Psychology, 25*, 847–856.
- Raval, V. V., Raval, P. H., & Deo, N. (2014). Mothers' socialization goals, mothers' emotion socialization behaviors, child emotion regulation, and child socioemotional functioning in urban India. *The Journal of Early Adolescence, 34*, 229–250.
- Raval, V. V., Raval, P. H., Salvina, J. M., Wilson, S. L., & Writer, S. (2013). Mothers' socialization of children's emotion in India and the USA: A cross- and within-culture comparison. *Social Development, 22*, 467–484.
- Spinrad, T. L., Eisenberg, N., Gaertner, B., Popp, T., Smith, C. L., Kupfer, A., et al. (2007). Relations of maternal socialization and toddlers' effortful control to children's adjustment and social competence. *Developmental Psychology, 43*, 1170–1186.
- Suinn, R. M., Ahuna, C., & Khoo, G. (1992). The Suinn-Lew Asian Self-Identity Acculturation Scale: Concurrent and factorial validation. *Educational and Psychological Measurement, 52*, 1041–1046.
- Tummala-Narra, P., Inman, A. G., & Ettigi, S. P. (2011). Asian Indians' responses to discrimination: A mixed-method examination of identity, coping, and self-esteem. *Asian American Journal of Psychology, 2*, 205–218.

- US Census Bureau. (2012). *The Asian population: 2010*. Retrieved on July 1, 2014, from <http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>.
- US Census Bureau. (2014). *State and county quick facts*. Retrieved on July 1, 2014, from <http://quickfacts.census.gov/qfd/states/39000.html>.
- Valiente, C., Eisenberg, N., Spinrad, T. L., Reiser, M., Cumberland, A., & Losoya, S. H. (2006). Relations among mothers' expressivity, children's effortful control, and their problem behaviors: A four-year longitudinal study. *Emotion, 6*, 459–472.
- Wang, Q. (2012). Chinese socialization and emotion talk between mothers and children in native and immigrant Chinese families. *Asian American Journal of Psychology, 4*, 185–192.