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Early Childhood Internalizing Problems in Mexican- and Dominican-Origin Children: The Role of Cultural Socialization and Parenting Practices

Esther Calzada¹, R. Gabriela Barajas-Gonzalez², Keng-Yen Huang², and Laurie Brotman²

¹University of Texas at Austin School of Social Work, 1925 San Jacinto Blvd D3500, Austin, TX 78712-0358

²New York University School of Medicine Department of Population Health, 227 E 30th St, 1st Floor, New York, NY 10016

Abstract

This study examined mother- and teacher-rated internalizing behaviors (i.e., anxiety, depression and somatization symptoms) among young children using longitudinal data from a community sample of 661 Mexican and Dominican families, and tested a conceptual model in which parenting (mother's socialization messages and parenting practices) predicted child internalizing problems 12 months later. Children evidenced elevated levels of mother-rated anxiety at both time points. Findings also supported the validity of the proposed parenting model for both Mexican and Dominican families. Though there were different pathways to child anxiety, depression and somatization among Mexican and Dominican children, socialization messages and authoritarian parenting were positively associated with internalizing symptoms for both groups.

Keywords

internalizing symptoms; early childhood; Latino families; parenting; *respeto*

Interest in the developmental trajectories of Latino youth has grown in tandem with increased awareness of the continued growth and high level of risk for mental health problems, and particularly internalizing disorders, that characterize the Latino population in the US. As with all youth, Latino mental health trajectories are shaped by a host of interacting factors at the individual, familial and extra-familial levels (Cicchetti and Blender, 2006). The influence of such factors (e.g., temperament, family conflict, peer networks), along with other, culturally-relevant factors (e.g., ethnic identity, discrimination), has been demonstrated in a growing literature with school-aged and adolescent Latinos, with parenting implicated as a powerful and proximal influence on developmental outcomes. In comparison, the literature on early childhood development among Latinos is in its infancy, such that little is known about mental health and its predictors among young children. The present study addresses this gap in knowledge using longitudinal data to examine mother and teacher reports of internalizing problems (i.e., anxiety, depression, and somatization), and parenting as a predictor of these problem outcomes, among young Mexican and Dominican American children.

Internalizing Problems in Latino Youth

Internalizing problems are the most common mental health concern in youth, with prevalence rates of 25% for anxiety disorders and 14% for depressive disorders (Merikangas et al., 2010). In early childhood, anxiety affects up to 9%, and depression approximately 2%, of children, and numerous longitudinal studies demonstrate that pathways to later internalizing problems start in early childhood (Anderson & Mayes, 2010). Moreover, rates of internalizing problems appear to vary by ethnic group, with some evidence indicating that Latinos are at greater risk (Bamaca-Colbert, Gayles, & Umaña-Taylor, 2012). Mexican American (MA) youth report more anxiety symptoms and are more likely to meet criteria for an anxiety disorder than their non-Latino peers (Pina & Silverman, 2004; Varela, Sanchez-Sosa, Biggs, & Luis, 2008). Similarly, current estimates suggest that between one-fourth to one-third of MA adolescents experience serious levels of depression and suicidal ideation, and of any demographic group, Latina girls are at highest risk for suicide attempts (CDC, 2013). Across all socioeconomic and cultural groups (Nolen-Hoeksema, 2001), including Latinos (Cespedes & Huey, 2008), girls are significantly more likely to experience internalizing symptoms compared to boys. Importantly, though, these robust gender differences have not been observed before age 11 (Mezulis, Funasaki, Charbonneau, & Hyde, 2010).

While much has been learned about the prevalence of internalizing problems among Latino youth, at least two significant gaps remain in the literature. First, although studies with Latino adults show significant variations in mental health functioning depending on country of origin (and other factors such as nativity, acculturation; e.g., Alegria, Canino, Stinson, & Grant, 2006), virtually nothing is known about within-group differences in the mental health of Latino youth. To explore sources of heterogeneity, scholars recommend that research move away from a reliance on pan-ethnic, predominately Mexican-origin samples to define Latino groups with greater specificity. Second, the extant pediatric literature has relied largely on cross-sectional studies with samples of school-aged and adolescent Latinos, with little attention to mental health functioning during early childhood. In light of mounting evidence that internalizing disorders often have their onset in early childhood, and the premise that individual child and ecological factors combine early in life to initiate a cascade toward later mental health problems (Shonkoff et al., 2012), longitudinal studies beginning in early childhood which examine individual child and family factors are necessary for a comprehensive understanding of the developmental trajectories of Latinos.

Latino Parenting & Child Development

Parental responsiveness (e.g., warmth, nurturance, attunement) and demandingness (e.g., expectations, discipline practices) have long been considered central tasks of parenting that shape children's social, emotional and behavioral competencies and thus impact mental health trajectories. These global dimensions of parenting appear to be cross-culturally robust in that parents from all cultures respond to the needs of and place demands on their children, but some research suggests that different levels of responsiveness and demandingness may be seen across ethnic groups (e.g., Cardona, Nicholson & Fox, 2000). More importantly, relations between parenting and child outcomes appear to be moderated by ethnicity (e.g.,

Hill, Bush & Roosa, 2003; Park et al., 2004), calling into question assumptions regarding the universally promoting effects of authoritative (a constellation of practices that are high on responsiveness and demandingness) parenting, and the correspondingly detrimental effects of authoritarian (low on responsiveness, high on demandingness) parenting.

In Latino families, findings are mixed regarding the effects of parenting practices on child mental health. A handful of studies describe Latino parents as authoritative, with positive effects on child development (Calzada & Eyberg, 2002; Mistry, Benner, Biesanz, Clark & Howes, 2010), but most studies describe Latino parents as authoritarian (Ispa et al., 2004; Knight, Virdin, & Roosa, 1994). Whether Latino children of authoritarian parents are less susceptible to its impact, as suggested by some (Hill et al., 2003; Ispa et al., 2004) or indeed are impacted negatively, as suggested by others (Calzada, Huang, Anicama, Fernandez, & Brotman, 2012; Gil-Rivas, Greenberger, Chen, & Lopez-Lena, 2003; McFarlane, Bellissimo, & Norman, 1995), remains unclear. There is also uncertainty regarding the applicability of a Westernized parenting model in Latino families (e.g., Domenech-Rodriguez, Donovan, & Crowley, 2009). Yet the authoritative/authoritarian typology represents the most widely-used framework in the study of parenting, there is some empirical evidence in favor of its validity with Latinos (e.g., Calzada et al., 2012), and there is no empirically-supported alternative for Latino parents of young children. In the present study, we use this typology but, mindful of potential cultural differences, we ground our study in the cultural context within which parenting occurs.

A Cultural Framework of Latino Parenting

Cultural values and their associated behavioral norms are believed to capture the essence of a cultural group (Phinney, 1996). For Latino parents, adherence to the cultural value of *respeto*, which emphasizes obedience and deference to adults (Calzada, Fernandez & Cortes, 2010), appears to go hand-in-hand with an authoritarian parenting style. Depending in part on their acculturative status (i.e., acculturation, or adaptation to mainstream culture; and enculturation, or maintenance of one's culture of origin), Latino parents may emphasize *respeto* to varying degrees (Gonzales et al., 2008). More acculturated Latina mothers may be more likely to embrace the mainstream US cultural value of independence, socializing their child to be assertive and autonomous, even during early childhood. The value of independence appears to go hand-in-hand with authoritative parenting practices. According to a cultural framework of Latino parenting (see Figure 1; Calzada et al., 2010), socialization messages (of *respeto* or independence) and the authoritarian or authoritative parenting practices that reinforce them are expected to collectively influence child mental health.

In a recent test of this model with MA and Dominican American (DA) mothers and their young children, Calzada and colleagues (2012) provided preliminary evidence of its validity. Associations between acculturative status and socialization messages were found, though they were not all as expected. In the acculturation process, immigrants (and later-generation members of an ethnic minority group) are believed to follow a strategy that reflects simultaneous movement along two independent dimensions of enculturation and acculturation (Berry, 1997). Theoretically, each dimension is expected to have unique associations with other variables (e.g., acculturation associated with independence;

enculturation associated with *respeto*, as discussed above). Yet findings from model testing largely showed indiscriminate positive associations between indicators of both acculturation and enculturation with culturally-rooted socialization messages, possibly suggesting an underlying tendency for certain mothers to be more proactive in fulfilling their roles, whether as a parent or as a member of a specific cultural group (see Calzada et al., 2010 and Calzada et al., 2012, for more discussion). Findings also showed associations between socialization messages and parenting practices; these were expected in that *respeto* was linked with more authoritarian and less authoritative practices, and independence was linked with more authoritative and less authoritarian practices. Finally, authoritarian practices were associated with more externalizing and internalizing problems at home, whereas authoritative practices had *no* significant association with child functioning.

Study findings were informative in elucidating the role of cultural variables in the parenting practices of Latina mothers and in the functioning of their young children, but they were limited in their reliance on cross-sectional data. The present study extends this work by using longitudinal data and a larger sample drawn from the same research program. Moreover, we define our child outcomes based on specific domains of internalizing problems (i.e., anxiety, depression, somatization), rather than a broadband scale, to explore whether level of risk and underlying mechanisms are disorder-specific. Recent work emphasizes the need for distinguishing between depression and anxiety symptoms, even at young ages and even though they co-occur and share some common risk factors (Lavigne, Hopkins, Gouze & Bryant, 2014). The study of somatization is indicated by evidence that Latino youth report high levels of somatic symptoms (Pina & Silverman, 2004), which are perhaps viewed as culturally sanctioned expressions of underlying distress (Varela & Hensley-Maloney, 2009).

The Study of Mexican- and Dominican-Origin Families

The Latino population in the US is comprised primarily (~60%) of Mexican-origin individuals, though rapid changes in migration patterns over the past decade have resulted in 1) tremendous growth from other countries of origin (e.g., El Salvador, Guatemala), 2) growth in new receiving states and communities that historically did not have a significant number of Latino residents (e.g., North Carolina), and 3) changing demographic profiles of Latinos in traditional receiving communities. In New York City (NYC), a long-standing receiving community where the present study took place, the Latino population has historically come from Puerto Rico and the Dominican Republic. Recent trends show, however, that migration from Mexico has increased exponentially such that MAs will represent the largest Latino ethnic group, surpassing both Puerto Rican and Dominican-origin populations in NYC, by the year 2021.

Changes at the population level serve as one of many sources of heterogeneity in the pan-Latino population, creating a unique ecology for each Latino group that influences their socioeconomic status, ethnic group networks, available support, and human capital, all of which are posited to impact acculturative processes, family processes and child development (Yoshikawa, 2011). In recognition of this heterogeneity, we sampled purposively and exclusively from MA and DA populations. DA families in NYC have well-established,

multi-generational ethnic enclaves that may serve as a source of social capital for new immigrants arriving in the city. In contrast, as the first generation of immigrants to the city, MA families are geographically dispersed (Smith, 2005), and their neighborhoods may be highly variable in terms of available capital accessible to MAs. In addition, MAs in NYC have lower income, lower levels of formal education and fewer employment opportunities relative to DAs (Yoshikawa, 2011). In studying two groups, each with a distinct migration history and with correspondingly different demographic profiles, we aim to provide a deeper and more nuanced understanding of the pan-Latino population in the US.

The Present Study

The overarching goal of the present study was to contribute to the literature on internalizing problems in young Latino children of Mexican and Dominican origin. Using community samples of MA and DA children, we first aimed to describe the prevalence of early childhood internalizing problems at two time points (at age 4 – 5, and 12 months later at age 5 – 6), focusing on symptoms of anxiety, depression, and somatization as reported by mothers and teachers. As in studies with older Latino youth, we expected rates of internalizing problems among young Latino children to be higher than population norms.

Second, we aimed to test whether our cultural model of Latino parenting, operationalized as culturally-rooted socialization messages and parenting practices, predicted later child internalizing problems in MA and DA children. We expected authoritarian practices to be a risk factor, and authoritative practices to have a limited role, in predicting later child functioning (Calzada et al., 2012). As noted above, we have reported previously on concurrent relations amongst the predictors in our model (i.e., acculturative status→cultural socialization messages→parenting practices; Calzada et al., 2012). Thus, although we tested the model as a whole in the present study, the focus was exclusively on the associations between parenting and child outcomes (cultural socialization messages and parenting practices→later child internalizing problems). By focusing specifically on the prediction of internalizing problems, we sought to contribute to the identification of risk and protective factors that are expected to have long-term impact, with implications for prevention/early intervention to offset risk for internalizing disorders in Latino youth.

Method

Participants

This study uses data from 661 MA and DA families who participated in two independent multi-method longitudinal studies examining the early childhood development of Latino children. In both studies, families were recruited from pre-kindergarten (pre-k) and kindergarten (K) classrooms across NYC. In Study 1 ($n=285$, 52% MA), the sample was drawn from 27 daycare or head start programs in community-based organizations, 14 public schools and 2 private schools. In Study 2, ($n=376$; 59% MA), the sample was drawn from 24 public schools (none of which had participated in Study 1). All children were 4 or 5 years old at the time of enrollment (Time 1). We were able to follow-up and reassess 66% of Study 1 families and 77% of Study 2 families, approximately 12 months later (Time 2). Chi-squared analyses indicated that there were no differences on demographic characteristics

(e.g. ethnicity, child gender, maternal education) or parenting practices between families who did and did not remain in the study at Time 2. However, mothers who were not assessed at follow-up were more likely to socialize their children to both *respeto* ($p = .01$) and independence ($p < .001$), and their children had higher levels of teacher-rated (but not mother-rated) anxiety ($p = .01$).

Consistent with previous reports on subsamples, MA ($n=369$) and DA ($n=292$) families differed on some demographic characteristics (see Table 1). Specifically, MA mothers were more likely to live in two-parent households ($p < .001$), have less than a high school education ($p < .001$), and live in poverty ($p < .001$) in comparison to DA mothers. There were no significant differences between the MA and DA samples in maternal age, length of residence in the U.S., household size, or maternal employment.

Measures

Acculturative Status—The Abbreviated Multidimensional Acculturation Scale (AMAS; Zea, Asner-Self, Birman, & Buki, 2003) is a self-report measure of acculturative status (i.e., acculturation, enculturation) that can be used with any ethnic group; the use of the term *status* recognizes that acculturation/enculturation change over time and that the current measure reflects a mother's acculturation/enculturation at a specific point in time. The AMAS taps into three domains: identity, cultural competence, and language competence, all of which are measured for the culture of origin (enculturation) as well as mainstream/ "US American" culture (acculturation), resulting in six subscales (3 of enculturation and 3 of acculturation). The 42 items are rated from "not at all" (1) to "extremely well" (4). The AMAS was developed and standardized in English and Spanish with Latino university students and community members from various countries of origin and showed adequate psychometric properties (Zea et al., 2003). Sample items include "Being American/Dominican/Mexican plays an important part in my life," (identity); "How well do you know the national heroes of US/Mexico/the Dominican Republic?" (cultural competence); and "How well do you understand English/Spanish on television or in the movies?" (language). Internal consistencies were high for all subscales for both groups (MA: α range .83–.95; DA: α range .88–.97).

Cultural Socialization Messages—To assess socialization messages, mothers completed the Cultural Socialization of Latino Children (CSLC; Calzada et al., 2012), a measure that was developed based on Latina mothers' descriptions of the behavioral manifestations of the cultural value of *respeto* and the US American value of independence (Calzada et al., 2010). The *respeto* scale includes 20 items (e.g., "I tell my child to defer to adult wishes."), and the independence scale includes 17 items (e.g., "I encourage my child to tell me when he disagrees with me."). each rated on a likert scale from "strongly disagree" to "strongly agree." Mean scale scores are created, with higher scores reflecting more socialization of that value. Internal consistency was adequate for both scales and was similar for the MA and DA samples (α were .81 and .77 for MA, and .83 and .76 for DA, for *respeto* and independence, respectively).

Parenting Practices—The Parenting Styles and Dimensions (PSD; Robinson, Mandlco, Olsen, & Hart, 1995) is a 32-item parent report measure of parenting practices with three orthogonal factors corresponding to Baumrind's (1995) authoritarian, authoritative, and permissive parenting style constructs. Parents respond to each item on a 5-point likert scale anchored by "never" and "always." The PSD has been standardized for parents of young children, and has been used with samples of various ethnic backgrounds including Latina mothers from Puerto Rico, the Dominican Republic and Mexico (Calzada, et al., 2012; Calzada & Eyberg, 2002). The permissive scale, which showed low internal consistency, was not used in the present study. Alpha coefficients were adequate for authoritative (MA: .85 and DA: .84) and authoritarian (MA: .71 and DA: .65) parenting for both groups.

Child Internalizing Problems—The Behavior Assessment System for Children, Parent Rating Scale and Teacher Rating Scale (BASC PRS, BASC TRS; Reynolds & Kamphaus, 2004) is a measure of child behavior and emotional functioning for children between the ages of 2.5 and 18 years with well-established psychometric properties. Two versions—for young children (2.5 – 5.11 years) and for school-aged children and adolescents (6 – 18 years)—were used depending on the age of the participant child. The parent form (the PRS) is available in both English and Spanish based on translation and standardization by the measure developers with a sample of 386 Latinos (specific ethnic groups not described; Reynolds & Kamphaus, 2004). In the present study, standardized (*T*) scores from the anxiety, depression and somatization subscales (α s ranged from .71–.80) were used. *T* scores below 60 were considered in the normal range, and those 60 and above were considered in the at-risk (60–69) or clinical range (70 and above).

Procedure

We used the same procedures for studies 1 and 2 at both time points. Study 1 families were recruited between 2007 and 2009, and Study 2 families were recruited between 2010 and 2011. At collaborating sites, research staff, fluent in Spanish and English, attended parent meetings and were present during daily school drop-off and pick-up times to inform parents of the study. In Study 1, we did not have access to data regarding the eligibility (i.e., the ethnicity) of all families within a recruitment site and were unable to determine rates of recruitment. In Study 2, the recruitment rate averaged 72% (53 – 94%) across sites.

Interested mothers were scheduled for an appointment at their child's school where they were met by a pair of bilingual research assistants. One research assistant interviewed the mother, while the other administered a battery of psychological tests (e.g., school readiness, language development) to the child; data from child testing were not considered in the present study. Participating mothers were asked which language they preferred to be interviewed in (Spanish or English) before beginning any research activities. The majority of mothers (99% of MA and 92% of DA) chose to be interviewed in Spanish. Interviews lasted 2 hours and mothers received a stipend for their participation. Teachers of participating children (99% of mothers consented to the collection of teacher report) were then asked to consent and complete a packet of questionnaires; participating schools and teachers received a stipend to support classroom needs. At Time 1, 252 teachers provided data for 597 participant children. At Time 2, 290 teachers provided data for 442 participating children.

There were no differences on demographics or mother-rated child functioning between children who had teacher ratings and those who did not.

Analytic approach

To examine the prevalence of internalizing problems in young Latino children, we compared mean-level scores of the internalizing scales of MA and DA children with norms (i.e., the BASC normative sample mean of 50 with ± 10 SD). We also calculated the percentage of children at-risk for internalizing problems by examining the proportion of children with standardized T scores ≥ 60 . Because attrition may have contributed to mean-level and risk estimate differences, we conducted analyses in two ways—using all available data and using only cases with longitudinal data; results are reported separately when discrepant.

To test our conceptual model, we first examined clustering effects because most teachers provided ratings on multiple students [the average number of students rated by each teacher was 2.48 ($SD=1.89$)]. We calculated design effects [$1 + (\text{average group size} - 1) \times \text{intraclass correlation coefficient}$] and followed guidelines suggested by Muthén and Satorra (1995) to determine whether traditional statistical techniques could be employed without concern for bias from the clustered nature of the sampling design. The design effects for teacher rated variables were all less than 2.0, suggesting that traditional statistical techniques could be used.

We then tested the conceptual model (see Figure 1) by constructing a structural equation model (SEM) using MPLUS 6 (Muthén & Muthén, 2010) and maximum likelihood estimation method (ML). We allowed for (a) indirect links from acculturative status to socialization messages to parenting practices to three domains of child internalizing problems, (b) direct links from socialization messages to three domains of child internalizing problems, and (c) variables within each domain (i.e., acculturative status, socialization, parenting, child internalizing problems) to be correlated, and judged the closeness of fit of the hypothesized model based on three indices as recommended by Muthén & Muthén: chi square ($\chi^2 > .05$), root mean square error of approximation (RMSEA $< .05$), and comparative fit index (CFI $> .95$). The focus of the present study was on the paths between culturally-rooted socialization messages/parenting practices and later child internalizing problems. Information on other paths in the model (e.g., concurrent associations between acculturative status and parenting) can be found in a previous report with a subsample (Calzada et al., 2012).

Multigroup SEM analyses were conducted to confirm whether there were statistically significant subgroup (i.e., MA and DA) differences in model fit. As a first step, we tested the nonrestricted model in the two groups by allowing all path values, means, variances, and covariances to be freely estimated. If there was evidence of fit, the next step was to examine a less restricted model by constraining path estimates to be equal in all groups, but allowing means, variances, and covariances to be free. More constraints (i.e., on means, variances, and covariances) can be imposed in subsequent steps if the more restricted model does not cause a significant decrement in model fit. If there was insufficient evidence of fit in the last restricted multigroup SEM model (in which path values, means, variances, and covariances

are all freely estimated), then the SEM model was tested separately for each group (i.e., MA and DA).

Results

Prevalence of Early Childhood Internalizing Problems

To understand the reported prevalence of early childhood internalizing problems (see Table 2), we first compared the mean-level scores of the anxiety, depression and somatization subscales from our sample, considering ethnicity, with the published norms of BASC scale scores ($M=50$; $SD=10$; 60% White, 20% Hispanic, 15% African American, and 5% other; see Reynolds & Kamphaus, 2004). We found that MA and DA children had higher mother-rated anxiety at both time points, with mean level scores approximately .75 of a SD above those of the normative sample. Mother ratings on depression and somatization, however, were near $T = 50$, as were teacher ratings on all three of the scales. In comparing the two ethnic groups, we found that DA children had higher teacher-rated anxiety and depression relative to MA children, but only at Time 1.

Nearly half (45–49%) of MA and DA children had T scores of 60 or higher, placing them in the at-risk/clinical range of anxiety problems based on mother ratings; between 11–14% of the sample was in the at-risk/clinical range based on teacher ratings. Risk for depression and somatization was lower: based on mother ratings, 12–18% of children were at risk for depression and 16–23% were at risk for somatization, with no ethnic group differences. Using teacher report, the risk for depression at Time 1 was higher for DA children (14%) than for MA children (5%) ($p=.003$), but there was no difference at Time 2 as the percentage of at-risk DA children dropped to 8%, and risk remained consistent among MA children at 6% ($p=.67$). On the teacher-rated somatization scale, risk ranged from 12–15%, with no ethnic group differences.

Model Testing

The second aim of the study was to test the prediction of child internalizing problems using socialization messages and parenting practices variables, as presented in Figure 1. Descriptive statistics and correlations for variables of interest for each ethnic group are shown in Table 3. DA mothers reported higher levels of acculturation (US identity, US cultural competence, English language competence) and higher ethnic cultural competence and Spanish language competence relative to MA mothers. There were no ethnic group differences in socialization to independence but DA mothers reported higher levels of socialization to *respeto* than MA mothers. There were also ethnic group differences in parenting practices, with DA mothers reporting more authoritative and less authoritarian parenting practices than MA mothers.

To test our conceptual model of Latino parenting, with internalizing problems (in three domains) as the outcome of interest, we first tested a nonrestricted model using multigroup SEM analyses. The nonrestricted model fit the data well, $\chi^2(96) = 122.01$, $p = .04$, RMSEA = .03 and CFI = .97. We then tested whether the model fit the MA and DA data similarly, by constraining all parameter estimates (or path values) to be equal across groups (but allowing

the means, variances, and covariances to vary). This restricted model did not converge. Next, we tested a model that constrained only partial parameter estimates to be the same across ethnic groups (e.g., only the paths between acculturative status and socialization messages), but this partially constrained model also yielded a poor fit, with CFI < .90, indicating that imposing equality constraints on the parameter estimates caused a significant decrement in model fit. Based on these results, which confirmed the expectation that the underlying processes specified in the model were significantly different across ethnic groups (see Calzada et al., 2012), we conducted analyses separately for the MA and DA samples.

The data fit the model well for the MA sample ($\chi^2(48) = 72.23, p = .013$, RMSEA = .037 and CFI = .956) and the DA sample ($\chi^2(48) = 49.94, p = .396$, RMSEA = .012 and CFI = .995). Figures 2a (for MA) and 2b (for DA) present the standardized path coefficients for the significant paths and the R^2 value for each endogenous variable (i.e., socialization, parenting, and child functioning). In considering the direct paths between Time 1 parenting variables and Time 2 child outcome variables, for MAs, we found that socialization of *respeto* predicted more teacher-rated somatization problems, and authoritarian practices predicted more mother-rated depressive symptoms, one year later. For DAs, we found that socialization of independence predicted later mother-rated anxiety; authoritarian practices predicted mother-rated depressive symptoms (based on both mother and teacher ratings); and authoritative parenting predicted fewer mother-rated somatization problems.

Discussion

Internalizing disorders are the most common childhood mental health problem and will soon rank second (to HIV/AIDS) in burden of disease at a global level (Mathers & Loncar, 2006). Given its significance as a widespread public health concern, the present study sought to describe the prevalence of anxiety, depression and somatization symptoms, and to test a model of parenting in the prediction of these domains of internalizing problems, in a community sample of young Mexican- and Dominican- origin children. The extant literature has documented high levels of anxiety and depression among Latino youth but most of this research has focused on school-aged children and adolescents. Moreover, past findings on Latino parenting in relation to childhood mental health have been inconsistent and again, have focused primarily on older youth. Current study findings address some of these gaps by documenting the high risk for internalizing problems experienced by MA and DA children beginning at young ages and by examining how parenting may contribute to this risk.

Our first aim was to describe the prevalence of internalizing problems in a sample of young MA and DA children. Results showed that about 50% of 4–5 year old children were at risk (i.e., $T \geq 60$) for clinically significant anxiety problems, and about 10% were at risk for depression and somatization, according to mother report; rates were lower (5–15%) but still noteworthy using teacher report. Past studies have estimated that approximately 9% of young children experience anxiety, and 2% experience depression; and while the present study did not use a diagnostic measure, findings nonetheless seem to indicate that, as in older youth (Pina & Silverman, 2004), young Latino children of both Mexican- and Dominican-origin are at considerably higher risk for internalizing problems than the general population. This notion is supported by assessments of child functioning one year later,

when children were 5 – 6 years old, that showed comparably high levels of internalizing problems as baseline ratings (except on teacher-rated depression in DA children), and lend support to the idea that early anxiety and depression symptoms are manifestations of true internalizing disorders (Luby, 2013).

It is important to consider whether study findings reflect rater bias, especially in light of past epidemiological studies with Latino children that overestimated psychopathology until functional impairment was taken into account (Canino & Alegria, 2009). Indeed, across measures and time, risk based on mother report was consistently higher than that based on teacher report. However, past research shows higher convergence between independent behavioral observations of internalizing behaviors and parent ratings, than between observations and teacher ratings (the reverse has been found for externalizing problems; Hinshaw, Han, Erhardt & Huber, 1992), suggesting that parent perspectives may be more useful for identifying children who are at risk for or are already experiencing anxiety and depression. It has also been suggested that anxiety, more so than depression, is observable by parents in early childhood (Luby, 2013), which may explain and lend validity to the higher rates of mother-rated anxiety (relative to depression, somatization) in the present study. Still, it will be important for future studies to examine the extent to which maternal ratings converge with more objective clinical ratings, particularly in families of anxious or depressed mothers.

Our second aim was to examine parenting as a risk (or protective) factor for internalizing problems, taking into account the cultural context (operationalized as mothers' acculturative status) within which parenting takes place (see Figure 1). Our conceptual model was supported for both MA and DA children, consistent with a previous study that tested the model using cross-sectional data drawn from the same research program. Specific concurrent associations between Time 1 variables (i.e., acculturative status, culturally-rooted socialization messages and parenting practices) differed by ethnic group and were reviewed previously (see Calzada et al., 2012, for details). In the present discussion, we focus on longitudinal associations between parenting and child internalizing problems.

For MA children, results showed a positive link between socialization of *respeto* and later teacher-rated somatization, and between authoritarian practices and later mother-rated depression. For DA children, results showed a positive link between socialization of independence and later mother-rated anxiety; a negative link between authoritative practices and later mother-rated somatization; and a positive link between authoritarian practices and later mother-rated depression. The significant paths between culturally-rooted socialization and child internalizing problems underscore the utility of expanding current conceptualizations of parenting beyond a sole reliance on parenting behaviors (Calzada et al., 2010). Those paths revealed that socialization messages may have a direct and negative impact on children. A previous test of this model (Calzada et al., 2012) identified independence as a protective factor for school readiness in MA children and *respeto* as a risk factor for externalizing problems in DA children, whereas current findings suggest that both *respeto* and independence may confer risk for internalizing problems; together, findings suggest that associations are domain-specific and likely shift over time or developmental stages.

Socialization of *respeto*, which emphasizes unquestioning obedience and deference, may impact children not only by fostering the use of authoritarian practices (Calzada et al., 2012), but also directly, potentially by making young children more nervous or distressed during interactions with adults, such as teachers, who hold clear authority. The negative effects of socialization to independence, which emphasizes emotional and instrumental competence, are puzzling, especially in light of its positive correlation with authoritative practices. However, because the value of independence is considered incongruent with traditional Latino culture, it may have been adapted by participant mothers only upon exposure to mainstream US American culture. In the absence of any historical context, it may have been difficult for mothers to form developmentally-appropriate expectations for independent behaviors in their young children, which may have inadvertently contributed to higher risk for internalizing problems. The ways in which Latina mothers encourage independence at early ages deserve further study.

Our findings also identified authoritarian parenting as a relatively robust risk factor for later problems, as it predicted depression for both MA and DA children. The mainstream literature (i.e., with non-Latino white samples) has long considered authoritarian practices to be maladaptive, but findings have been mixed among families of color. The present study findings are consistent with a handful of other Latino studies in suggesting that authoritarian practices increase risk for child mental health problems (Gil-Rivas et al., 2003; McFarlane et al., 1995). In addition, the significant relation between authoritarian practices and depression specifically (i.e., not other internalizing problems) aligns with a recent early childhood study with non-Latinos that found that parental hostility predicted depression, but not anxiety (Hopkins et al., 2013). That is, anxiety and depression are believed to have distinct etiologies, even as they share common risk factors and are often comorbid (Bayer, Hiscock, Ukoumunne, Price & Wake, 2008; Hopkins et al., 2013).

Finally, results indicated that authoritative parenting may have a limited role in the development of early internalizing problems in MA and DA children (but note that it was protective against mother-rated somatization in the DA sample). Although a large literature documents the importance of authoritative practices for children's optimal development, early childhood research has found positive aspects of parenting (e.g., maternal sensitivity) to have a relatively modest impact on later internalizing problems (Kok et al., 2013). Indeed, two meta-analyses showed small effect sizes in studies of parenting as predictors of internalizing problems (McLeod et al 2003; 2007). But despite the small variance in depression and anxiety that can be attributed to parenting variables (in the present study and broader literature), scholars emphasize that parenting is nonetheless significant as an intervention target, especially at early ages when small changes can serve as a catalyst that alters mental health trajectories (McLeod et al., 2007).

Study findings should be interpreted in light of several limitations. First, we used a community sample and relied on mother and teacher ratings to describe early internalizing symptoms, and generalization to a clinical sample of children that meet diagnostic criteria for anxiety and/or depression cannot be assumed. Second, differential attrition, in which children at higher risk for internalizing problems (i.e., children with higher teacher-rated anxiety) were less likely to remain in the study may have biased our results (e.g., by

underestimating associations between predictors and outcomes). Third, although the use of longitudinal data is an important strength of the present study, the follow-up period was limited to one year; to more fully examine developmental trajectories, assessments at multiple time points and over a longer period of time are needed. Finally, Latino culture is a complex set of processes influenced by many other factors, namely familism, which were not included in the present model but deserve further consideration (Calzada, Tamis-LeMonda, & Yoshikawa, 2013). Because of the unique cultural context of Latinos, caution may be warranted in applying the authoritarian/authoritative typology, as was have done in the present study. Nonetheless, the authoritarian parenting construct used here was found to be an important predictor in our model. More generally, our study provided valuable information on early childhood internalizing symptoms among Latino children, with attention to subgroup differences in the large and heterogeneous Latino population. Our focus on the role of culture within these groups is particularly timely given the recent call for attention to how culture may influence mechanisms of intervention (Pina & Gonzales, 2014). Our findings suggest that prevention programs that support parents in using non-authoritarian practices and that consider the culturally-rooted messages parents use to socialize children hold promise for offsetting the considerable risk for anxiety and other internalizing disorders observed in the Latino child population.

References

- Alegria M, Canino G, Stinson FS, Grant BF. Nativity and DSM-IV psychiatric disorders among Puerto Ricans, Cuban American, and Non-Latino Whites in the United States: Results from the national epidemiologic survey and alcohol and related conditions. *Journal of Clinical Psychiatry*. 2006; 67:56–65. [PubMed: 16426089]
- Anderson ER, Mayes LC. Race/Ethnicity and internalizing disorders in youth: A review. *Clinical Psychology Review*. 2010; 30:338–348. [PubMed: 20071063]
- Bayer JK, Hiscock H, Ukoumunne, Price A, Wake M. Early childhood aetiology of mental health problems: a longitudinal population-based study. *The Journal of Child Psychology and Psychiatry*. 2008; 49(11):1166–1174. [PubMed: 18665879]
- Bamaca-Colbert MY, Gayles JG, Umaña-Taylor AJ. A developmental-contextual model of depressive symptoms in Mexican-origin female adolescents. *Developmental Psychology*. 2012; 48:406–421. [PubMed: 21967564]
- Baumrind, D. Child rearing dimensions relevant to child maltreatment. In: Lerner, R., editor. *Child maltreatment and optimal care giving in social contexts*. New York: Garland; 1995. p. 55-73.
- Berry JW. Immigration, acculturation and adaptation. *Applied Psychology*. 1997; 46:5–68.
- Calzada EJ, Eyberg SM. Self-reported parenting practices in Dominican and Puerto Rican mothers of young children. *Journal of Clinical Child & Adolescent Psychology*. 2002; 31:354–363. [PubMed: 12149973]
- Calzada EJ, Fernandez Y, Cortes D. Incorporating the cultural value of respeto into a framework of Latino parenting. *Cultural Diversity and Ethnic Minority Psychology*. 2010; 16:77–86. [PubMed: 20099967]
- Calzada EJ, Huang K-Y, Anicama C, Fernandez Y, Brotman LM. Test of a cultural framework of parenting with Latino families of young children. *Cultural Diversity and Ethnic Minority Psychology*. 2012; 18:285–296. [PubMed: 22686147]
- Calzada, EJ., Tamis-LeMonda, CS., Yoshikawa, H. *Journal of Family Issues*. 2013. Familismo in Mexican and Dominican families from low-income, urban communities. Advance online publication. <http://dx.doi.org/10.1177/0192513X12460218>
- Canino, G., Alegria, M. Understanding psychopathology among the adult and child Latino population from the United States and Puerto Rico: An epidemiologic perspective. In: Villarruel, FA. Carlo,

- G. Contreras Grau, JM. Azmitia, M., Cabrera, NJ., editors. *Handbook of US Latino Psychology: Developmental and Community-Based Perspectives*. Sage Publications; 2009.
- Cardona PG, Nicholson BC, Fox RA. Parenting among Hispanic and Anglo-American mothers with young children. *The Journal of Social Psychology*. 2000; 140:357–365. [PubMed: 10902376]
- Centers for Disease Control and Prevention. Youth risk behavior surveillance – United States. *Surveillance Summaries, MMWR*; 2013. p. 632014
- Cespedes Y, Huey S. Depression in Latino adolescents: A cultural discrepancy perspective. *Cultural Diversity and Ethnic Minority Psychology*. 2008; 14:168–172. [PubMed: 18426290]
- Cicchetti D, Blender JA. A multiple-levels-of-analysis perspective on resilience. Implications for the developing brain, neural plasticity, and preventative intervention. *Annals of the New York Academy of Science*. 2006; 1094:248–258.
- Domenech Rodriguez MM, Donovan MR, Crowley SL. Parenting styles in a cultural context: Observations of “protective parenting” in first-generation Latinos. *Family Process*. 2009; 48:195–210. [PubMed: 19579905]
- Gil-Rivas V, Greenberger E, Chen C, Lopez-Lena M. Understanding depressed mood in the context of a family-oriented culture. *Adolescence*. 2003; 38:93–109. [PubMed: 12803456]
- Gonzales NA, German M, Kim SY, George P, Fabrett F, Millsap R, Dumka LE. Mexican American adolescents’ cultural orientation, externalizing behavior and academic engagement: The role of traditional cultural values. *American Journal of Community Psychology*. 2008; 31:151–164. [PubMed: 18085435]
- Hill NE, Bush KR, Roosa MW. Parenting and family socialization strategies and children’s mental health: Low-income Mexican-American and Euro-American mothers and children. *Child Development*. 2003; 74:189–204. [PubMed: 12625445]
- Hinshaw SP, Han SS, Erhardt D, Huber A. Internalizing and externalizing behavior problems in preschool children: Correspondence among parent and teacher ratings and behavior observations. *Journal of Clinical Child Psychology*. 1992; 21:143–150.
- Hopkins J, Lavigne JV, Gouze KR, LeBailly SA, Bryant FB. Multi-domain models of risk factors for depression and anxiety symptoms in preschoolers: Evidence for common and specific factors. *Journal of Abnormal Child Psychology*. 2013; 41:705–722. [PubMed: 23504302]
- Ispa JM, Fine MA, Halgunseth LC, Harper S, Robinson J, Boyce L, Brooks-Gunn J, Brady-Smith C. Maternal intrusiveness, maternal warmth, and mother-toddler relationship outcomes: Variations across low-income ethnic and acculturation groups. *Child Development*. 2004; 75:1613–1631. [PubMed: 15566369]
- Knight GP, Virdin L, Roosa M. Socialization and family correlates of mental health outcomes among Hispanic and Anglo American children: Consideration of cross-ethnic scalar equivalence. *Child Development*. 2009; 65(1):212–224. [PubMed: 8131648]
- Kok R, Linting M, Bakermans-Kranenburg MJ, van IJendoorn MH, Jaddoe VW, Hofman A, Tiemeier H. Maternal sensitivity and internalizing problems: Evidence from two longitudinal studies in early childhood. *Child Psychiatry & Human Development*. 2013; 44:751–765. [PubMed: 23408268]
- Lavigne JV, Hopkins J, Gouze KR, Bryant FB. Bidirectional influences of anxiety and depression in young children. *Journal of Abnormal Child Psychology*. 2014 *Epub ahead of print*.
- Luby J. Treatment of anxiety and depression in the preschool period. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2013; 52:346–358. [PubMed: 23582866]
- Mathers CD, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. *PLoS Medicine*. 2006; 3:e442. [PubMed: 17132052]
- McFarlane AH, Bellissimo A, Norman GR. Family structure, family functioning and adolescent well-being: The transcendent influence of parental style. *The Journal of Child Psychology and Psychiatry*. 1995; 36:847–864. [PubMed: 7559849]
- McLeod BD, Weisz JR, Wood JJ. Examining the association between parenting and childhood depression: A meta-analysis. *Clinical psychology review*. 2007; 27:986–1003. [PubMed: 17449154]
- McLeod BD, Wood JJ, Weisz JR. Examining the association between parenting and childhood anxiety: A meta-analysis. *Clinical Psychology Review*. 2003; 27:986–1003. [PubMed: 17449154]

- Merikangas KR, He J, Burstein M, Swanson SA, Avenevoli S, Cui L, Swendsen J. Lifetime prevalence of mental disorders in US adolescents: Results from the National Comorbidity Study- Adolescent supplement (NCS-A). *Journal of American Academy of Child and Adolescent Psychiatry*. 2010; 49(10):980–989.
- Mezulis AH, Funasaki KS, Charbonneau AM, Hyde JS. Gender differences in the cognitive vulnerability-stress model of depression in the transition to adolescence. *Cognitive Therapy and Research*. 2010; 34:501–513.
- Mistry RS, Benner AD, Biesanz JC, Clark S, Howes C. Family and social risk, and parental investments during the early childhood years as predictors of low-income children's school readiness outcomes. *Early Childhood Research Quarterly*. 2010; 25:432–449.
- Muthén, LK., Muthén, BO. *Mplus: Statistical analysis with latent variables: A user's guide*. Los Angeles: Author; 1998–2010.
- Muthén BO, Satorra A. Technical aspects of Muthen's liscomp approach to estimation of latent variable relations with a comprehensive measurement model. *Psychometrika*. 1995; 60:489–503.
- Nolen-Hoeksema S. Gender differences in depression. *Current Directions in Psychological Science*. 2001; 10(5):173–176.
- Parke RD, Coltrane S, Duffy S, Buriel R, Dennis J, Powers J, French S, Widaman KF. Economic stress, parenting, and child adjustment in Mexican American and European American families. *Child Development*. 2004; 75:1632–1656. [PubMed: 15566370]
- Phinney J. When we talk about American ethnic groups, what do we mean? *American Psychologist*. 1996; 51:918–927.
- Pina AA, Gonzales NA. The role of theory and culture in child and adolescent prevention science: Introduction to the special section. *Journal of Clinical Child & Adolescent Psychology*. 2014; 43(3):397–399. [PubMed: 24787706]
- Pina AA, Silverman WK. Clinical phenomenology, somatic symptoms, and distress in Hispanic/Latino and European American youths with anxiety disorders. *Journal of Clinical Child & Adolescent Psychology*. 2004; 33:227–236. [PubMed: 15136186]
- Reynolds, CR., Kamphaus, RW. *BASC 2, Behavior assessment system for children*. American Guidance Service; 2004.
- Robinson CC, Mandlco B, Olsen SF, Hart CH. Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports*. 1995; 77:819–830.
- Smith, RC. *Mexican New York: The transnational lives of new immigrants*. Berkeley: 2005.
- Shonkoff JP, Garner AS. Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012; 129:e232–e246. [PubMed: 22201156]
- Varela RE, Hensley-Maloney L. The influence of culture on anxiety in Latino youth: A review. *Clinical Child and Family Psychology Review*. 2009; 12:217–233. [PubMed: 19277865]
- Varela RE, Sanchez-Sosa JJ, Biggs BK, Luis TM. Anxiety symptoms and fears in Hispanic and European American children: Cross-cultural measurement equivalence. *Journal of Psychopathology and Behavioral Assessment*. 2008; 30:132–145.
- Yoshikawa, H. *Immigrants Raising Citizens: Undocumented Parents and Their Young Children*. New York, NY: Russell Sage; 2011.
- Zea MC, Asner-Self KK, Birman D, Buki LP. The Abbreviated Multidimensional Acculturation Scale: Empirical validation with two Latino/Latina samples. *Cultural Diversity and Ethnic Minority Psychology*. 2003; 9:107–126. [PubMed: 12760324]

Figure 1.
Cultural Model of Latino Parenting and Child Internalizing Problems

Figure 2.

Table 1

Demographic Characteristics by Ethnic Group

	MA (n=369) M (SD)	DA (n=292) M (SD)	p
Child age	4.78 (.56)	4.80 (.54)	.685
Mother's age	31.73 (6.43)	32.56 (7.28)	.125
Length of residence in US (in years)	10.89 (6.25)	10.92 (5.64)	.936
Number of household members	4.98 (1.54)	4.95 (1.81)	.824
	%	%	
Child Gender (male)	51.5	47.6	.180
Foreign-born (child)	8.3	4.9	.060
Two-parent household	86.6	65.5	<.001
Mother Education (% <HS)	59.3	27.1	<.001
Mother works for pay	42.4	40.0	.285
Family poverty status	94.3	77.3	<.001

Note.

MA = Mexican American; DA = Dominican American. T-test and chi-square analyses were used to analyze group differences. Poverty is based on federal poverty guidelines, with consideration for number of persons living in the home. An income-to-needs ratio below 1 is considered poor and indicates that the income for the respective family is below the official definition of poverty.

Table 2

Early Childhood Internalizing Problems across Time, by Ethnic Group

	MA Children		DA Children	
	Time 1	Time 2	Time 1	Time 2
<i>Mean (SD) for Internalizing Problems</i>				
Anxiety (M)	58.17 (10.45)	58.80 (10.28)	58.47 (10.96)	58.47 (11.75)
Depression (M)	50.33 (10.84)	48.96 (9.28)	48.66 (11.05)	49.43 (9.81)
Somatization (M)	50.91(10.35)	49.70 (9.83)	52.14 (10.61)	50.37 (11.95)
<hr/>				
Anxiety (T) ^a	47.16 (8.47)	48.52 (11.04)	48.70 (9.29)	48.49 (8.81)
Depression (T) ^a	46.61 (7.32)	46.26 (7.31)	49.45 (9.60)	47.61 (7.92)
Somatization (T)	48.70 (8.79)	48.97 (9.62)	49.42 (9.23)	48.88 (10.89)
<hr/>				
<i>Risk (T = 60) for Internalizing Problems (n; %)</i>				
Anxiety (M)	166 (45.0%)	102 (45.1%)	142 (48.8%)	89 (44.9%)
Depression (M)	68 (18.4%)	28 (12.4%)	51 (17.5%)	31 (15.7%)
Somatization (M)	73 (19.8%)	37 (16.4%)	68 (23.4%)	39 (19.7%)
<hr/>				
Anxiety (T)	35 (10.5%)	26 (12.6%)	35 (13.5%)	23 (11.9%)
Depression (T) ^a	16 (4.8%)	11 (5.8%)	37 (14.2%)	14 (7.8%)
Somatization (T)	41 (12.2%)	24 (13.1%)	39 (15.2%)	22 (13.1%)

Note.

MA = Mexican American; DA = Dominican American. Time 1 =ages 4 – 5 years; Time 2 = ages 5 – 6 years. (M)=mother ratings; (T)=teacher ratings. Ns for mother and teacher rating are 226 and 189 for MAs, and are 198 and 176 for DAs.

^a indicates ethnic group difference in outcome at Time 1.

Table 3

Descriptive Results and Correlations among Study Variables, by Ethnic Group

	MAs M (SD)	DAs M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enculturation																		
1. Eth Id ^a	3.92 (.28)	3.88 (.32)	1.00	.18 [†]	.15 [†]	-.07	-.32 [‡]	-.23 [‡]	.15 [*]	-.09	.02	.04	-.02	.03	.03	.01	.07	.07
2. Eth Know [‡]	2.68 (.70)	3.04 (.68)	.08	1.00	.40 [‡]	-.06	.07	-.20 [†]	.20 [†]	.24 [‡]	.13 [*]	.02	.04	.09	.14 [*]	.03	.05	.10
3. SP Comp ^{a,‡}	3.63 (.51)	3.79 (.39)	.12 [*]	.37 [‡]	1.00	-.02	.01	-.03	.20 [†]	.19 [†]	.12 [*]	-.01	-.12	-.04	.04	-.13	-.06	.10
Acculturation																		
4. US Id [‡]	2.09 (.84)	2.79 (.88)	-.19	-.07	-.13 [*]	1.00	.29 [‡]	.14 [*]	.09	.12 [*]	.10	-.01	-.02	-.07	.01	.05	.04	.004
5. Cul Know ^{a,‡}	1.58 (.47)	2.23 (.58)	-.06	.26 [‡]	.10	.27 [‡]	1.00	.65 [‡]	-.09	.07	.16 [†]	.02	.04	.06	-.04	-.08	-.06	-.03
6. Eng Comp ^{a,‡}	1.76 (.51)	2.26 (.76)	-.09	.15 [†]	.12 [*]	.15 [†]	.57 [‡]	1.00	-.26 [‡]	-.05	.20 [†]	-.02	.01	-.04	-.13	-.05	-.08	-.05
Socialization Messages																		
7. <i>Respeto</i> [‡]	76.69 (13.53)	78.83 (13.71)	.04	.07	-.01	.05	-.09	-.22 [‡]	1.00	.30 [‡]	-.01	.29 [‡]	-.07	.09	.06	-.02	.06	.07
8. Indep	83.45 (10.72)	84.24 (10.68)	.10	.15 [†]	.19 [†]	-.11 [*]	.02	-.05	.39 [‡]	1.00	.38 [‡]	-.02	.08	.001	.09	-.09	-.05	.02
Parenting Practices																		
9. Auth ^{a,‡}	3.99 (.64)	4.21 (.57)	.04	.19 [‡]	.24 [‡]	-.02	.17 [†]	.15 [†]	.09	.44 [‡]	1.00	-.05	-.04	.004	-.10	-.15 [*]	-.12	.02
10. Aut [‡]	1.85 (.49)	1.75 (.47)	-.04	.001	.03	.06	-.13 [*]	-.15 [†]	.25 [‡]	.09	.02	1.00	.03	.15 [*]	.001	.11	.18 [*]	-.06
Child Functioning																		
11. ANX (M)	58.80 (10.28)	58.47 (11.75)	-.10	-.02	-.03	-.07	-.03	.05	-.07	.03	.03	.08	1.00	.44 [‡]	.30 [‡]	.10	.00	.03
12. DEP (M) [‡]	48.96 (9.28)	49.43 (9.82)	-.04	.05	-.01	-.11	-.02	-.01	-.02	.09	.04	.20	.45 [‡]	1.00	.36 [‡]	.02	.10	-.12
13. SOM (M)	49.70 (9.83)	50.37 (11.95)	.07	.06	-.10	-.12	.05	.03	-.03	.06	.003	.04	.29 [‡]	.47 [‡]	1.00	.04	.14	.12
14. ANX (T) [‡]	48.52 (11.04)	48.49 (8.81)	.02	-.01	.03	.07	.06	-.02	.10	.14 [*]	.10	-.002	.08	.01	-.00	1.00	.65 [‡]	.31 [‡]
15. DEP (T) [‡]	46.26 (7.31)	47.61 (7.92)	.08	.03	.001	.13	.11	-.001	.10	.14	.13	-.003	-.03	-.04	-.02	.72 [‡]	1.00	.25 [‡]
16. SOM (T)	48.97 (9.62)	48.88 (10.89)	.08	-.05	-.13	.14	-.04	-.10	.16 [*]	.03	.04	.07	-.19 [†]	-.22 [†]	-.02	.49 [‡]	.52 [‡]	1.00

Note. Correlations for the Mexican sample presented below the diagonal; Correlations for the Dominican sample presented above the diagonal. Child function variables were from Time 2 data. All other variables from Time 1.

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Eth=ethnicity; Id=identity; Know=knowledge; SP=Spanish; Cul=cultural; Eng=English; Indep=independence; Auth=authoritative; Aut=authoritarian; ANX=anxiety; DEP=depression; SOM=somatization;
(M)=mother rating; (T)=teacher rating.
,,^a indicates MA and DA group difference in variance.
,,^b indicates group mean difference (p<.05).
* p <.05;
[†] p <.01;
[‡] p <.001