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Parent Cultural Adaptation and Child Functioning in Culturally Diverse, Urban Families of Preschoolers

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Abstract

Parent cultural adaptation and preschool behavioral and socioemotional functioning were examined in a community sample of urban families from diverse cultural backgrounds. Participants were 130 families of children (mean age = 4.1 years) attending eight public Pre-Kindergarten programs in urban communities. Parents completed a measure of cultural adaptation that taps into acculturation and enculturation, and teachers reported on children's externalizing problems, internalizing problems and adaptive behavior in the classroom. Parents' ethnic identity was a significant predictor of children's functioning. The retention of parents' culture of origin and specific aspects of acculturation are related to positive outcomes in a sample of culturally diverse families of preschoolers living in urban communities. Bicultural parents (those with high ethnic and US American identity) had children with lower levels of internalizing problems and higher levels of adaptive behavior relative to parents who were not bicultural. Implications for enhancing positive child outcomes through the promotion of parental ethnic identity are discussed.

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Keywords

Acculturation; Enculturation; Preschoolers; Externalizing Problems; Internalizing Problems; Adaptive Behavior

1. Introduction

Culture has increasingly been recognized as a central variable in the study of child development. To the extent that culture defines the values, beliefs and behavioral norms of its members, the cultural context of child development should not be neglected (Baumrind, 1995; Levine, 1977). Yet there are few empirical studies of culture and its relation with child functioning and most have focused primarily on the presence and effects of risk factors related to living in low-income, urban communities. Garcia Coll, Akerman & Cicchetti (2000) have proposed a shift in the study of child development to an emphasis on the adaptive aspects of culture. A focus on culture as protective for children and families may allow for the identification of important targets for promotion and intervention efforts, particularly for families of color living in urban communities with limited resources. The present study focuses on the cultural adaptation of parents as a potential protective factor for the functioning of preschool-age children from four pan-ethnic groups living in urban communities.

Cultural adaptation comprises two parallel constructs of acculturation, or the adaptation to mainstream culture (e.g., United States (US) American), and enculturation, or the maintenance of a culture of origin (e.g., Pakistani). The term “acculturation” as it is typically used in the literature may refer solely to acculturation to mainstream culture or it may include the dual processes of acculturation to mainstream culture *and* enculturation to the culture of origin. The present study uses the term *cultural adaptation* to reflect equally the parallel processes of acculturation and enculturation, whereas the term *acculturation* in the present study refers solely to the adoption of mainstream culture.

Parent cultural adaptation is thought to play a significant role in child development (Garcia Coll & Magnuson, 1997), likely because of its effects on parenting (Ispa et al., 2004; Vega, Khoury, Zimmerman, Gil, & Warheit, 1995). Parental expectations about child development, parent-child interactions, and socialization practices appear to vary as a function of acculturation and enculturation (Harrison, Wilson, Pine, Chan, & Buriel, 1990). Higher acculturation in parents is associated with the use of more consistent discipline (Dumka, Roosa, & Jackson, 1997), more praise and inquiry, less modeling (Planos, Zayas, & Busch-Rossnagel, 1995), and less parental control (Knight, Virdin, & Roosa, 1994; Lin and Fu; 1990).

Recently, a small body of literature has emerged to suggest that the balance of parents’ acculturation and enculturation, rather than the maintenance or adoption of one culture over the other, is predictive of positive outcomes for children and adolescents (Gonzales, Knight, Morgan-Lopez, Saenz, & Sirotli, 2002). The work of Szapocznik and colleagues, for example, indicates that the failure of Latino parents to orient to mainstream culture may place their children at risk for maladjustment (Coatsworth, Pantin, & Szapocznik, 2002). On the other hand, characteristics of the Latino culture, such as *familismo*, appear to be associated with positive child adjustment (Felix-Ortiz & Newcomb, 1995).

Biculturalism, or integration, is one of four possible cultural adaptation strategies proposed by a theoretical model (Berry, 2003) in which acculturation and enculturation interact in the following ways: rejection of the culture of origin (i.e., low enculturation) combined with participation in the new culture (i.e., high acculturation) results in *assimilation*; rejection of the new culture (i.e., low acculturation) combined with maintenance of the culture of origin

(i.e., high enculturation) results in *separation*; rejection of both the culture of origin and the new culture (i.e., low acculturation and enculturation) results in *marginalization*; and simultaneous maintenance of the culture of origin and participation in the new culture (i.e., high acculturation and enculturation) results in *integration* or biculturalism. Biculturalism is hypothesized to be most adaptive and may serve as a protective factor for young children that offsets sociodemographic risks (e.g., limited resources, discrimination).

Biculturalism may be associated with better child functioning in families from diverse cultural backgrounds for several reasons. A bicultural parent may be more likely to raise children who are bicultural and thus more likely to have higher self-esteem and social competence (Bautista de Domanico, Crawford, & De Wolfe, 1994) and lower involvement in delinquency and substance use (Brook, Whiteman, Balka, & Cohen, 1997). Bilingualism, a component of biculturalism, appears to confer specific benefits (e.g., higher academic achievement) for children from immigrant families (Portes & Schauffler, 1994), while children who do not speak their parents' first language are more likely to experience parent-child conflict (Rumbaut, 1994). Bicultural parents may show greater cognitive flexibility and possess a greater behavioral repertoire (Yamada & Singelis, 1999), resulting in a greater variety of parenting skills that can be tailored to different childrearing situations (Bacallao & Smokowski, 2005). Bicultural parents may be better able to negotiate and advocate for their children within mainstream institutions (e.g., schools) that adhere to US mainstream norms and values while also functioning better within community organizations (e.g., church, mosque, cultural centers) that may be more in line with norms and values of their culture of origin. Interactions in both types of systems are thought to play an important role in child development, such as through the transmission of behavioral norms and moral values. Finally, because biculturalism appears to be related to better mental and physical health (LaFromboise, Coleman, & Gerton, 1993), lower stress (Berry, 2003), and less intergenerational familial conflict (Coatsworth et al., 2002), families with bicultural parents may fare better across various psychosocial indicators.

Despite promising theoretical advances and emerging empirical evidence suggesting that biculturalism and cultural adaptation more generally play an important role in child development, correspondence between cultural adaptation theory and research remains low. Most studies have relied on overly simplistic measures that fail to account for the complexities of the construct of cultural adaptation (Cuellar, Arnold, & Gonzalez, 1995; Felix-Ortiz, Newcomb, & Myers, 1994; Gonzales et al., 2002). For example, though it is widely accepted that cultural adaptation consists of theoretically orthogonal constructs of acculturation and enculturation as discussed above, most measures assume a single continuum from "acculturated" to "enculturated" (Birman, 1998; Marin & Gamba, 1996). The use of linear measures of cultural adaptation (rather than bilinear, comprising both acculturation and enculturation) does not allow for an examination of each process separately as well as their combined influence.

The cultural adaptation literature has also drawn criticism because of limited construct validity. Theoretically, acculturation and enculturation should be measured by examining behaviors and cognitions within culturally-specific dimensions such as language, knowledge and identity (Cuellar et al., 1995; Felix-Ortiz et al., 1994; Zea, Asner-Self, Birman, & Buki, 2003). Yet most measures tap exclusively into behavior, most typically within the domain of language. In addition, measures often rely exclusively on demographic variables, rather than empirically-derived variables or aspects of culture that are posited to be specifically related to parenting or child outcomes (Marin & Gamba, 1996). While there are several demographic characteristics that correlate with cultural adaptation, including generational status, age, education, and language use, these proxy variables do not capture the full nature of cultural adaptation as proposed in theoretical models.

In their model of acculturation, Padilla and Perez (2003) emphasize the importance of *cultural knowledge*, or knowledge of significant historical events and popular culture that may be related to awareness of culturally-specific standards of behavior. *Identity* also appears to be a central dimension of cultural adaptation. Ethnic identity refers to a subjective sense of belonging and commitment to a particular group and its values (Phinney, Horenczyk, Liebkind, & Vedder, 2001). Components of ethnic identity include ethnic self-identification, sense of belonging, and attitudes towards one's ethnic group. More recently developed measures of cultural adaptation capture such dimensions (e.g., knowledge, identity) and also address other important limitations that have characterized the measurement of cultural adaptation. For example, Zea and colleagues (2003) developed the Abbreviated Multidimensional Acculturation Scale (AMAS), a theoretically-driven and empirically-derived measure that is bilinear (i.e., measures acculturation and enculturation) and multidimensional (e.g., knowledge, identity, language) and that may be used across ethnic groups. Such advances have allowed for the examination of cultural adaptation as a construct that may be central to the functioning of ethnically-diverse families.

The aim of this study was to examine the association between parent cultural adaptation and functioning in young children from culturally-diverse urban families, using a bilinear and bidimensional measure of cultural adaptation. Specifically, we sought to:

1. To establish the feasibility of a modified form of the AMAS (Zea et al., 2003) with an ethnically-diverse sample of immigrant and US-born parents of Pre-Kindergarten students. This included examination of the factor structure, reliability and construct validity. We expected that immigrant, relative to US-born, parents would have lower acculturation and higher enculturation. In addition, we expected that acculturation and enculturation would be orthogonal; dimensions within acculturation and enculturation (i.e. identity, knowledge) would be positively correlated; and both acculturation and enculturation would be correlated, but not redundant, with demographic variables such as length of residence in the US.
2. To examine the relation between parent cultural adaptation and child behavioral and social functioning as reported by teachers. We expected that higher levels of parent acculturation and enculturation would be related to better child functioning.
3. To explore biculturalism as a protective factor in the functioning of young children. Based on the extant literature, we expected that parents who were bicultural (i.e., highly acculturated and enculturated) would have children with better functioning in the classroom compared with children of parents who were marginalized, separated, or assimilated.

To our knowledge, this is the first study to examine relations between parental cultural adaptation using a bidimensional, bilinear measure and teacher-rated child functioning during preschool. The study is strengthened by a sample that is culturally diverse (comprising immigrant and native-born parents from more than 20 countries from Latin America, the Caribbean, Asia, and Europe), but also relatively homogenous in terms of child age, enrollment in universal Pre-Kindergarten programs in public schools and residence in urban neighborhoods within one geographically-defined school district.

2. Methods

2.1. Participants

Participants were parents of children attending a Pre-Kindergarten program in one of eight public schools within one school district in New York City. Families were participants in a randomized controlled trial of ParentCorps (Brotman & Calzada, 2001), an after-school, family

preventive intervention (i.e., groups for parents and children) to promote socioemotional functioning and prevent conduct problems in young children living in urban communities. Data for the current study come from the baseline assessment, prior to any intervention activities.

The intervention trial included 171 families (42% of eligible families) who entered the study in 2 cohorts in school years 2003 and 2004. The present study includes the subset of participants who completed the cultural adaptation measure ($n = 130$; 76%) at the baseline assessment. Forty-one of the participants from the larger trial did not complete the parent interview that included the measure of cultural adaptation and there were no differences on demographic variables (caregiver or child age, marital status, caregiver education, family income) or child characteristics (teacher-reported adaptive behavior, externalizing problems and internalizing problems) between those who completed the cultural adaptation measure and those who did not.

Parents' self-identified ethnicity fell within the following categories: 36 (28%) were Latino (e.g., Puerto Rican, Mexican, Columbian, Ecuadorian), 51 (39%) were Black, non-Latino (e.g., African American, AfroCaribbean); 23 (18%) were non-Latino White (e.g., Polish, Russian), and 20 (15%) were Asian American (e.g., Chinese, Pakistani). More than half ($n = 69$; 53%) of the parents, but only 8% ($n = 10$) of the children, were foreign-born. Among immigrant parents, the average time living in the US was 13 years ($SD = 8.7$). Sixty percent ($n = 78$) of parents spoke a second language and 22% preferred to speak a language other than English at home.

Parents were on average 34 years of age ($SD = 6.84$) and 85% ($n = 111$) were female. Approximately half (54%) of the sample reported a household income of less than \$30,000; 17% of families lived in public housing. Still, there was some variability in income, with 13% reporting a family income level of more than \$60,000. The majority (63%) of primary caregivers did not work outside the home and most (72%) were married or living with a partner. Less than half of the sample (45%) had continued their education beyond high school. Children were 4.1 years old ($SD = .34$) and 46% were male.

2.2. Measures

2.2.1. Cultural adaptation—The measure of cultural adaptation was based on the *Abbreviated Multidimensional Acculturation Scale* (AMAS; Zea et al., 2003), a measure of cultural adaptation designed for use with immigrants or non-immigrants from any ethnic group. The AMAS taps into multiple dimensions of cultural competence and identity. Cultural competence refers to the individual's knowledge of the culture as well as the ability to function competently (i.e., speak the language) within it. Specific domains measured are: language competence, cultural knowledge and identity. All domains are measured for both mainstream "US American" culture (acculturation) and the culture of origin (enculturation), allowing for an examination of cultural adaptation as a bilinear construct. Participants are asked to describe their "ethnic, national or cultural group" (e.g., Ecuadorian, Jewish, Polish, Jamaican). This group label is then used for the cultural adaptation items (e.g., "I think of myself as being Ecuadorian."). Items are rated on a 4-point Likert scale from 1 ("strongly disagree") to 4 ("strongly agree").

The AMAS was 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). To our knowledge, the current study is the first to examine the use of AMAS items with non-Latinos. In its original form, the AMAS includes 42 items and takes 15–25 minutes to administer. We modified the AMAS for the current study to include 10 items with an administration time of 5–10 minutes. This modification was based on our

need for a brief, less burdensome measure for use in a large-scale study that nonetheless captured the domains and dimensions of cultural adaptation suggested by current theories.

The modified version of the AMAS included 10 items that tapped into US and ethnic cultural knowledge and identity. We eliminated the 18 original AMAS items that tap into language competence because 40% of our sample was monolingual. For monolingual participants, the non-English language competence items (e.g., *how well do you speak Spanish with family?*) are not applicable. Moreover, our impression in using the English language competence items with monolingual participants, particularly those with limited formal education, is that those items tap into participant perceptions of how well they speak “educated English.” For example, a monolingual, English-speaking participant who is asked, “How well do you speak English?” may base her response on her formal education and her use of slang. As a result, these items are confusing to participants and do not capture the intended construct. These considerations, combined with the importance of administering a consistent protocol to all of our participants, led to the elimination of the language competence subscale.

For the Cultural Knowledge scale, we combined the content from the 12 original items into four items (“How well do you know US/ethnic *Popular Culture*, e.g., television shows, newspapers/magazines, actors/actresses”; “How well do you know US/ethnic *History*, e.g., national heroes, political leaders, historical events?”). This was intended to limit the time required without losing information relevant to our specific aims (i.e., we were not particularly interested in separating out different aspects of popular culture such as TV versus newspapers, though such distinctions may be important for other study questions). Similarly, we reduced the number of items from 12 to eight on the Identity scales to minimize redundancy. Two additional items were dropped from this scale following factor analysis (see Results section below).

2.2.2. Demographics and Measures of Validity Criteria—A demographic form asking for information regarding age, educational and occupational status, household composition, and income was used to assess demographic variables. Race and ethnicity were also measured, using the following items consistent with those of the US Census Bureau: *Are you Hispanic or Latino/a?*; *Which of the following describes your race?: African American/Black; Asian/Asian American; European American/White/Caucasian; Native American/American Indian or Alaska Native; Native Hawaiian or Other Pacific Islander; Other.* We also inquired about country of birth, years of residence in the US, frequency of contact with persons in one’s country of origin (one item; 4-point Likert scale: “none” to “at least once a month”), frequency of socialization with US Americans/ethnic group members (two items; 4-point Likert scale: “not at all” to “a lot”), and cultural values (two items; “How much are your personal values like those of US America/your culture of origin?”; 4-point Likert scale: “not at all” to “extremely, like a native”).

2.2.3. Child Functioning—The preschool version (for children between 2.5 and 5 years) of the *Behavior Assessment System for Children, Teacher Rating Scale* (BASC TRS; Reynolds & Kamphaus, 1998) was used to measure child functioning. For this study, we considered the broad-band scales of Externalizing ($M = 7.45$, $SD = 7.86$), Internalizing ($M = 7.37$, $SD = 6.05$) and Adaptive Skills ($M = 27.86$, $SD = 8.63$). The Externalizing composite taps into aggression, conduct problems and hyperactivity (e.g., “hits other children”). The Internalizing composite taps into anxiety, depression and somatization (e.g., “is fearful,” “is sad”). The Adaptive Skills composite taps into adaptability and social skills (e.g., “communicates clearly,” “makes friends easily”). The BASC TRS has established psychometric properties for use with children of diverse ethnic backgrounds (Reynolds & Kamphaus, 1998). For our study sample, internal consistency (Cronbach’s alpha) ranged from .83 to .92 for the broad-band scales. Test-retest reliability over a 6-month period ranged from .59 to .76. Intercorrelations among BASC TRS

scales were in the expected directions, with positive associations among problem scales and negative associations between problem scales and adaptive skills.

2.3 Procedure

For the larger study, families of children were recruited through their public school Pre-Kindergarten programs by school and research staff and consented by research staff. Recruitment efforts included in-person contact between parents and research staff at school events (e.g., parent-teacher conference) and daily drop-off and pick-up. Families attended one of eight schools that were randomized to ParentCorps or no-intervention condition. Parents were recruited into the assigned condition of their school. The study was described as having the goal to learn more about how children are functioning in school, and what parents do to help them succeed. The intervention program was described as one in which parents would meet to learn about strategies to support their child's academic, behavioral, social and emotional development, while children would meet to learn skills such as listening and taking turns to help them succeed in the classroom. All families of students enrolled in target schools were invited to participate if there was a primary caregiver in the home who spoke English. All study activities were conducted in English (e.g., recruitment, assessments).

The present study includes data from baseline assessments conducted in the Fall of the Pre-Kindergarten year. Information on cultural adaptation and sociodemographics was completed during a home visit in which the primary caregiver was interviewed by a trained research assistant, and teacher report was collected via paper-pencil measures. Families were paid \$25 and teachers were paid \$15 for completing the baseline assessments for the larger study.

3. Results

3.1. Preliminary Analyses: Psychometric Properties of the Cultural Adaptation Measure

3.1.1. Factor structure—First, we conducted confirmatory factor analyses (*CFA*) to ascertain whether a four-factor structure (i.e., US and Ethnic Cultural Knowledge and Identity) was supported. *CFA* was conducted using EQS 6.1 (Bentler, 1995). Twelve items from four factors of the AMAS (US/Ethnic Identity, US/Ethnic Cultural Knowledge) were included in the *CFA*.

Five indices were used to evaluate the fit of the *CFA* models, including chi-square goodness-of-fit (χ^2); the goodness of fit index (*GFI*); the comparative fit index (*CFI*); the root mean square residual (*RMR*); and the root mean square error of approximation (*RMSEA*). As a general guideline, *GFI* and *CFI* values of .90 or above, *RMR* values of .10 or less and *RMSEA* values of .05 or less, indicate good fit of a model (Browne & Cudeck, 1993; Hu & Bentler, 1999).

CFA results showed that the four-factor model (12 items) fit the data well, $\chi^2(48) = 85.48$, $p < .001$, *CFI* = 0.94, *GFI* = .89, *RMR* = .04, *RMSEA* = 0.08. One item ("I am proud of being *cultural group*.") had a factor loading below .40. We eliminated this item and its parallel item ("I am proud of being *US American*;" despite a loading of .68), and re-analyzed the model. The reduced model provided a better fit for the data, $\chi^2(29) = 35.35$, $p = \text{n.s.}$, *CFI* = 0.95, *GFI* = .95, *RMR* = .03, *RMSEA* = 0.04. Therefore, we adopted a 10-item scale (AMAS-10).

Item means and standard deviations are shown in Table 1. Mean ratings on the items ranged from 2.91 to 3.68 (on a scale of 1 to 4), and were approximately normally distributed. Standardized factor loadings ranged from 0.73 – 0.75 for the US Identity scale, 0.84 – 0.87 for the Ethnic Identity scale, 0.54 – 1.00 for the US Cultural Knowledge scale, and 0.73 – 1.00 for the Ethnic Cultural Knowledge scale (see Table 1).

3.1.2. Internal consistency—To assess internal consistency, we calculated Cronbach's alpha for each scale (US/Ethnic Identity, US/Ethnic Cultural Knowledge) for the full sample and for immigrant and US-born parents. Results are shown in Table 2. For the full sample, alphas ranged from .70 – .89. Alpha coefficients for the subsamples were adequate, ranging from .63 – .93.

3.1.3. Construct Validity—To further evaluate scale validity, we compared immigrant and US-born participants on the four scales using *t*-tests. Results, along with means and standard deviations, are presented in Table 2. As expected, differences were found based on immigration status. Compared to US-born parents, immigrant parents had lower US Cultural Knowledge ($t(125) = -2.24, p < .05$) and US Identity ($t(125) = -9.84, p < .001$). Immigrants also had higher Ethnic Cultural Knowledge ($t(121) = 5.77, p < .001$). There were no differences based on immigration status on Ethnic Identity ($t(121) = .65, p > .05$).

We also examined associations among the empirically-derived AMAS-10 scales and select variables that might be associated with cultural adaptation (e.g., years of residence in the US). Variables were grouped into three domains: 1) *Acculturation* (US Cultural Knowledge, US Identity, US Social Relations, and US Values), 2) *Enculturation* (Ethnic Cultural Knowledge, Ethnic Identity, Ethnic Social Relations, and Ethnic Values), and 3) *Other* (years of residence in US, amount of contact with person in country of origin, parental education).

Pearson correlations (see Table 3) among the acculturation variables (i.e., US Cultural Knowledge, Identity, Social Relations, and Values) showed that all scales were significantly interrelated ($r_s = .29$ to $.50$). Several of the enculturation variables were related. Ethnic Values was associated with Ethnic Cultural Knowledge, Ethnic Identity, and Ethnic Social Relations; and Ethnic Social Relations was associated with Ethnic Cultural Knowledge.

The associations between acculturation and enculturation variables were generally low, with a few exceptions. In general, US Cultural Knowledge, US Identity, and US Values were not related to the parallel enculturation scale. However, US and Ethnic Social Relations were positively correlated ($r = .25, p < .01$), suggesting that participants who spent more time socializing with one cultural group also spent more time socializing with the other group.

Significant associations between cultural adaptation scales and “other” variables were in the expected direction. Specifically, years of residence in the US was positively associated with US Cultural Knowledge, and negatively associated with Ethnic Cultural Knowledge and Ethnic Values. Amount of contact with persons in one's country of origin was negatively associated with acculturation scales and positively associated with enculturation scales. Education level was positively and significantly associated with US Cultural Knowledge.

3.2. Relations between Cultural Adaptation and Teacher-Rated Child Functioning

After establishing the psychometric properties of this brief measure of cultural adaptation, we turned to our primary aim of examining the relation between parental cultural adaptation and child functioning at school. To examine relations between cultural adaptation and child functioning, we created interaction terms for each cultural adaptation scale as an index of biculturalism as recommended by Zea and colleagues (2003). Specifically, we created a product term of US and Ethnic Cultural Knowledge to create a Bicultural Knowledge scale, and a product term of US and Ethnic Identity to create a Bicultural Identity scale. The product terms were created after centering the Cultural Knowledge and Identity variables to avoid problems of multicollinearity (Aiken & West, 1991). Bicultural scales were used, along with acculturation and enculturation scales, in the analyses (described below).

We conducted hierarchical regression analyses separately for each of the child functioning outcomes: externalizing, internalizing and adaptive behavior. Step 1 included four centered cultural adaptation scales (US and Ethnic Cultural Knowledge and Identity) and Step 2 added two additional centered bicultural terms (Bicultural Knowledge and Bicultural Identity). Results are shown in Table 4.

In the prediction of externalizing behavior, parent cultural adaptation was a significant predictor and explained 19% of the variance. Specifically, US Cultural Knowledge and Ethnic Identity were negatively related, and US Identity was positively related, to child externalizing problems. Biculturalism scales were not related to child externalizing problems.

Parent cultural adaptation was also a significant predictor of child internalizing behavior. Ethnic Identity was a significant negative predictor of internalizing behavior, and explained 12% of the variance. After adjusting for the effects of Ethnic and US Identity, bicultural identity (US $\times$ Ethnic Identity) was also a significant predictor of internalizing problems. Figure 1 displays the significant interaction patterns for bicultural identity and child internalizing problems.

Regardless of parent US Identity, high parent Ethnic Identity was related to low levels of internalizing problems. Children who were rated by their teachers as highest in internalizing problems had the most marginalized parents—low in both US and Ethnic Identity.

Finally, in the prediction of child adaptive behavior, Ethnic Identity was a significant positive predictor, but the model, which explained 7% of the variance, did not reach significance ($F(4, 108) = 2.13, p = .08$). Biculturalism was not related to child adaptive behavior.

3.3. Comparisons between Children of Bicultural Parents and Other Parents

To explore cultural adaptation and child functioning following Berry's (2003) theoretical model, we also derived categories of bicultural, assimilated, separated, and marginalized parents. We categorized parents based on the Identity dimension. We chose to explore biculturalism within the dimension of Identity because our results (reported above) showed that Identity, compared with Cultural Knowledge, was consistently related to child functioning.

To create cultural adaptation groups, participants were categorized based on their scores on US Identity and Ethnic Identity. A scale score was considered low if it was 1 (*Strongly Disagree*) or 2 (*Somewhat Disagree*), and high if it was 3 (*Somewhat Agree*) or 4 (*Strongly Agree*); this cutoff was conceptually meaningful (i.e., *agree* versus *disagree*) and also corresponded to the midpoint of the scale. Next, US and Ethnic Identity were considered together to determine categorization. Participants who were low on US Identity and Ethnic Identity were categorized as having a *Marginalized Identity*; those low on US Identity and high on Ethnic Identity were categorized as having a *Separated Identity*; those high on US Identity and low on Ethnic Identity were categorized as having an *Assimilated Identity*; and those high on both identity scales were categorized as having a *Bicultural Identity*. This categorization resulted in 2 (1.6%) marginalized, 21 (16%) separated, 7 (5%) assimilated, and 79 (61%) bicultural.

The asymmetrical distribution across cultural adaptation categories suggested a predominately bicultural sample, and we were unable to make meaningful comparisons across the four groups. Therefore, we compared *bicultural* ($n = 79$) and *not bicultural* ($n = 30$) groups. Results from independent sample t tests showed that child internalizing behavior ($t(107) = 3.00, p < .01$) and adaptive behavior ($t(107) = -3.76, p < .001$) were significantly different based on bicultural identity, though child externalizing behavior was not, $t(107) = 1.16, p = \text{n.s.}$ The bicultural group ($M = 42.18, SD = 7.26$) had lower child internalizing problems compared to the not

bicultural group ($M = 47.60$, $SD = 10.94$). Similarly, the bicultural group ($M = 51.29$, $SD = 9.02$) had higher child adaptive behavior compared to the not bicultural group ($M = 43.77$, $SD = 10.15$).

4. Discussion

This study examined cultural adaptation of parents in a culturally diverse, urban sample of families of Pre-Kindergarten students. Results suggest that parent cultural adaptation is related to child functioning in important ways with implications for prevention and intervention programs. This study also examined the psychometric properties of a measure of cultural adaptation based on the AMAS (Zea et al., 2003) used with a culturally diverse group of parents of young children. Results support the reliability and validity of the 10-item measure, the AMAS-10, administered as part of a comprehensive assessment of child and family functioning. These findings are important given past methodological limitations and the need for a brief, yet theoretically sound, measure of cultural adaptation for use across ethnic groups.

In a sample of foreign- and native-born parents from 20 different countries and four pan-ethnic groups (Black, Latino, Asian American, non-Latino White) with relatively low levels of education, we found that the AMAS-10 yielded similar constructs as those established by Zea and colleagues (2003) with the AMAS. The four subscales showed high internal consistency and were related in expected ways to demographic variables (e.g., country of birth, length of residence in the US, social relations). As predicted, immigrant and US-born samples differed on Ethnic and US Cultural Knowledge and on US Identity. They did not differ, however, on Ethnic Identity. This suggests that some dimensions of cultural adaptation are independent of country of origin, and that demographics should not serve as proxy measures for cultural adaptation.

Results also showed that acculturation was not correlated with enculturation, indicating orthogonality and supporting current theories of cultural adaptation that propose that maintenance of the culture of origin and participation in the mainstream culture are simultaneous but independent processes (Berry, 2003). Within acculturation, US Cultural Knowledge and US Identity were moderately related to each other. However, within enculturation, Ethnic Cultural Knowledge and Ethnic Identity were not related. In the AMAS standardization study (Zea et al., 2003), domains within both acculturation and enculturation were related.

This inconsistency may be due to the ethnic diversity of the current sample relative to Zea et al.'s (2003) sample, as it is possible that patterns of correlations are different for each pan-ethnic group. For example, groups that have recently arrived in the US (i.e., Latinos, Asian Americans), compared with those that have a long history in the US (i.e., African Americans and European Americans), may embrace their "culture of origin" differently. Potential differences between pan-ethnic groups are further complicated by issues of race (Allen, Bat-Chava, Aber, & Siedman, in press). There is *racial* heterogeneity within the Latino population, while there is considerable *ethnic* variation in non-Latino Blacks and Whites. As noted by Waters (1990), the choice of whether to embrace one's ethnicity may not be available to individuals who are identifiable as members of a minority group compared with those who are not visibly members of a specific group. We were not able to explore the question of ethnic and racial differences in the current sample, though this is an area in need of further study.

In an examination of the link between parent cultural adaptation and child functioning, we found that parent Ethnic Identity, US Identity and US Cultural Knowledge were predictors of child externalizing behavior. High Ethnic Identity and US Cultural Knowledge were associated with fewer externalizing behaviors while high US Identity was associated with more

externalizing behavior. The positive relation between US Identity and child externalizing behavior was unexpected. There is ample evidence that acculturation in children and adolescents is related to child conduct problems (Vega et al., 1995), and it is possible that parent acculturation is related to child externalizing behavior in similar ways. For example, high levels of control may be protective for children in families living in low-income, urban neighborhoods (Knight et al., 1994). If US Identity is associated with less parental control, it may place minority children at risk for conduct problems.

In contrast, Ethnic Identity predicted lower levels of externalizing and internalizing behaviors and higher levels of adaptive behavior. Although the processes accounting for these relations were not examined in the current study, there are several plausible explanations for this relation. It may be that parent ethnic identity leads to the use of certain cultural socialization practices (Hughes, 2003) that lead to greater child ethnic identity (Bernal et al., 1990; Phinney et al., 2001), resulting in better child functioning (Bat-Chava, Pahl, & Steen, 2005; Phinney & Kohatsu, 1997). For example, a focus on collectivism, with its emphasis on interdependence, may promote children's socioemotional competencies in the school setting (Triandis, 1995). An alternate explanation is that parents with stronger ethnic identity have better psychosocial functioning (e.g., lower stress) and that these characteristics are associated with more optimal parenting practices and in turn better child functioning. Research is needed to test these models.

To further explore parents' cultural identity, and given our interest in biculturalism as a protective factor, we next examined the construct of biculturalism by categorizing parents as marginalized, separated, assimilated, or bicultural (Berry, 2003). Based on this categorical approach, the majority of the sample (61%) reported having a bicultural identity. Considering that families were recruited from highly diverse school communities, we expected high levels of enculturation. At the same time, families who enroll their child in a Pre-Kindergarten program, who speak English (a requirement of the study) and who agree to participate in a voluntary research study conducted by a mainstream public institution (a University Medical Center) are more likely to be acculturated. It is not surprising, then, that a majority of parents were categorized as bicultural, and almost no parents (< 2%) were marginalized.

Relative to others, children of parents with a bicultural identity were rated more favorably by their teachers. Specifically, these children showed less internalizing and more adaptive behavior through there were no differences between children of bicultural and not bicultural parents on externalizing behavior. It has long been suggested that biculturalism may act as a protective factor and several researchers have emphasized the notion that persons living in multiple cultures negotiate everyday situations by drawing from a given culture based on contextual cues (Buriel & DeMent, 1997). Biculturalism in parents may facilitate the selection of the best characteristics from each culture based on contextual demands, creating an optimal fit between family and environment. Among families with low incomes living in urban communities with limited resources, biculturalism, particularly as related to cultural identities, may be a key protective factor to offset the risks associated with childrearing in a high-risk environment (Knight, Virdin, & Roosa, 1994). An important next step is to isolate the effects of specific aspects of biculturalism (e.g., as related to cultural notions of family and independence) on the socioemotional and behavioral development, respectively, of young children.

There are several limitations to the present study. Our sample included families of Pre-Kindergarten students who agreed to participate in a study of child development and met requirements of the larger study for English language competence. Clearly, cultural adaptation is highly relevant for non-English speaking parents, and it is unclear in what ways the measurement of cultural adaptation, or its relation to child functioning, may differ depending on language status. Therefore, findings cannot be generalized to non-English speaking parents

or to families of children not enrolled in Pre-Kindergarten programs. Also, we were unable to explore between or within-ethnic group variability due to power limitations. The experience of each group within the US is unique and this would certainly be expected to influence cultural adaptation. Given issues of within-group heterogeneity, caution should be taken in generalizing results from the present study to other African American/AfroCaribbean, Latino, Asian American and European American families.

In spite of these limitations, the present study achieved several important goals. We demonstrated adequate psychometric properties of a brief measure of cultural adaptation that is both bilinear and bidimensional for use with a culturally diverse foreign- and US-born sample of parents. These findings are important in light of significant measurement problems that have historically impeded progress in this area of research (Cuellar et al., 1995; Felix-Ortiz et al., 1994) and that have largely precluded empirically-sound hypothesis testing. This study also demonstrated a robust relation between parents' ethnic identity and the functioning of young children as reported by teachers. Future studies should examine the mechanisms through which parents' ethnic identity influences child functioning and explore parenting practices as a possible mediating variable. Finally, results from the present study indicate that aspects of both acculturation and enculturation predict child functioning in the classroom; that biculturalism contributes to the prediction of child functioning above and beyond the independent effects of acculturation and enculturation, and that children of bicultural parents have lower levels of internalizing problems and higher levels of adaptive behavior. Importantly, the effect of cultural adaptation may differ depending on the domain of child functioning. Overall, for parents of young children living in urban communities, a bicultural orientation with a particular emphasis on retention of parents' ethnic identity may buffer their children from certain types of mental health problems. Efforts to strengthen parental ethnic identity through mental health intervention programs may be an important cultural adaptation in serving a multicultural population.

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Figure 1. Interaction between Teacher-rated Internalizing problems and Parent Ethnic Identity
Note. Internalizing problems based on the Behavior Assessment System for Children-Teacher Rating Scale. Parent Ethnic Identity based on the Abbreviated Multidimensional Acculturation Scale-10 items.

Table 1

Descriptive Statistics & Standardized Factor Loadings for AMAS-10 items

Item	Total	
	<i>M (SD)</i>	<i>FL</i>
<i>US Identity subscale</i>		
I think of myself as being US American	3.26 (.92)	.73
Being US American plays an important part in my life	3.28 (.78)	.75
I feel that I am part of US American culture	3.28 (.71)	.73
<i>Ethnic Identity subscale</i>		
I think of myself as being...	3.68 (.66)	.84
Being ... plays an important part in my life	3.54 (.70)	.86
I feel that I am part of ... culture	3.55 (.67)	.87
<i>US Cultural Knowledge subscale</i>		
How well do you know US American History	2.91 (.76)	1.0
How well do you know US American Popular Culture	2.98 (.75)	.54
<i>Ethnic Cultural Knowledge subscale</i>		
How well do you know History from ...	2.89 (.96)	1.0
How well do you know Popular Culture from ...	2.96 (.92)	.73

Note. AMAS-10 = Modified Abbreviated Multidimensional Acculturation Scale; FL = standardized factor loading. Confirmatory factor analyses were based on cases with complete AMAS data ($n = 115$).

Table 2
Descriptive Statistics and Reliability Coefficients of the Cultural Adaptation Subscales of the AMAS-10 by Subsample

	Total		Immigrant		US-born	
	<i>M</i> (<i>SD</i>)	<i>α</i>	<i>M</i> (<i>SD</i>)	<i>α</i>	<i>M</i> (<i>SD</i>)	<i>α</i>
USCK ^a	2.95 (.66)	.70	2.83 (.71)	.73	3.09 (.57)	.63
USId ^a	3.29 (.69)	.78	3.01 (.67)	.75	3.59 (.51)	.76
EthCK ^a	2.93 (.86)	.82	3.09 (.86)	.82	2.71 (.82)	.80
EthId	3.64 (.54)	.89	3.62 (.61)	.93	3.55 (.60)	.85

Note. AMAS-10 = Modified Abbreviated Multidimensional Acculturation Scale; USCK = US American Cultural Knowledge; USId = US American Identity; EthCK = Ethnic Cultural Knowledge; EthId = Ethnic Identity.

^a = mean-level differences based on immigration status.

Table 3

Correlations among Cultural Adaptation Variables

	1	2	3	4	5	6	7	8	9	10
1. US CK ^a										
2. US Identity ^a	.42***									
3. US Social Relations	.35***	.33***								
4. US Values	.50***	.34***	.29***							
5. Ethnic CK ^a	.12	.02	-.07	.02						
6. Ethnic Identity ^a	-.04	-.08	-.04	-.07	.07					
7. Ethnic Social Relations	.00	.07	.25***	.05	.29***	.08				
8. Ethnic Values	.07	-.08	-.01	.14	.47***	.29***	.30***			
9. Length of US residence	.25*	.14	.22	.13	-.27*	-.09	.03	-.33**		
10. Outside Contact	-.22*	-.22*	-.22*	-.16	.39***	.15	.11	.37***	-.49***	
11. Education	.18*	.13	-.09	.09	.08	-.02	.11	.15	.15	-.04

Note. US CK = US American Cultural Knowledge; Ethnic CK = Ethnic Cultural Knowledge.

^aBased on Modified Abbreviated Multidimensional Acculturation Scale.

*
p < .05;

**
p < .01;

p < .001.

Table 4
Hierarchical Regression Model Predicting Teacher-Reported Child Outcomes from Parent Cultural Adaptation

Predictors	Externalizing Behavior			Internalizing Behavior			Adaptive Behavior		
	<i>B</i> (<i>SE</i>)	<i>F</i> (<i>df</i>), ΔR^2		<i>B</i> (<i>SE</i>)	<i>F</i> (<i>df</i>), ΔR^2		<i>B</i> (<i>SE</i>)	<i>F</i> (<i>df</i>), ΔR^2	
<i>1. Cultural Adaptation</i>									
		<i>F</i> = 6.25 ***; ΔR^2 = .19			<i>F</i> = 3.59 **; ΔR^2 = .12			<i>F</i> = 2.13, ns; ΔR^2 = .07	
US Cultural Knowledge	-3.20 (1.12) **			-0.18 (0.98)			-0.04 (1.34)		
US Identity	2.28 (1.12) *			-1.44 (0.97)			0.59 (1.33)		
Ethnic Cultural Knowledge	1.00 (0.80)			0.84 (0.70)			-0.24 (0.95)		
Ethnic Identity	-4.27 (1.10) ***			-3.18 (0.96) ***			3.79 (1.31) **		
<i>2. Biculturalism</i>									
		<i>F</i> = 0.24, ns; ΔR^2 = .00			<i>F</i> = 3.59 *, ΔR^2 = .06			<i>F</i> = 0.004, ns; ΔR^2 = .00	
Bicultural Identity	0.99 (1.55)			3.24* (1.31)			-0.02 (1.85)		
Bicultural Knowledge	0.25 (1.01)			-0.95 (0.85)			-0.10 (1.20)		

Note. Child functioning based on the Behavior Assessment System for Children-Teacher Rating Scale. Parent Cultural Adaptation based on the Abbreviated Multidimensional Acculturation Scale-10 items. Degree of freedom for Step 1 *F* statistic is (4, 108), and for Step 2 is (2, 106).

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