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Longitudinal Associations between Parenting and Youth Adjustment in Twelve Cultural Groups: Cultural Normativeness of Parenting as a Moderator

Jennifer E. Lansford,
Duke University, Durham, NC, USA

Jennifer Godwin,
Duke University, Durham, NC, USA

Suha M. Al-Hassan,
Hashemite University, Zarqa, Jordan, and Emirates College for Advanced Education, Abu Dhabi, UAE

Dario Bacchini,
University of Campania "Luigi Vanvitelli," Caserta, Italy

Marc H. Bornstein,
Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, MD, USA

Lei Chang,
University of Macau, China

Bin-Bin Chen,
Fudan University, Shanghai, China

Kirby Deater-Deckard,
University of Massachusetts, Amherst, MA, USA

Laura Di Giunta,
Università di Roma "La Sapienza," Rome, Italy

Kenneth A. Dodge,
Duke University, Durham, NC, USA

Patrick S. Malone,
Duke University, Durham, NC, USA

Paul Oburu,
Maseno University, Maseno, Kenya

Concetta Pastorelli,
Università di Roma "La Sapienza," Rome, Italy

Address correspondence to Jennifer E. Lansford, Duke University, Center for Child and Family Policy, Box 90545, Durham, NC 27708, USA. Phone and fax: 309-243-5322. lansford@duke.edu.

Ann T. Skinner,
Duke University, Durham, NC, USA

Emma Sorbring,
University West, Trollhättan, Sweden

Laurence Steinberg,
Temple University, Philadelphia, PA, USA and King Abdulaziz University, Jeddah, Saudi Arabia

Sombat Tapanya,
Chiang Mai University, Chiang Mai, Thailand

Liane Peña Alampay,
Ateneo de Manila University, Quezon City, Philippines

Liliana Maria Uribe Tirado, and
Universidad San Buenaventura, Medellín, Colombia

Arnaldo Zelli
University of Rome "Foro Italico," Rome, Italy

Abstract

To examine whether the cultural normativeness of parents' beliefs and behaviors moderates the links between those beliefs and behaviors and youths' adjustment, mothers, fathers, and children (N = 1,298 families) from 12 cultural groups in nine countries (China, Colombia, Italy, Jordan, Kenya, Philippines, Sweden, Thailand, and the United States) were interviewed when children were, on average, 10 years old and again when children were 12 years old. Multilevel models examined five aspects of parenting (expectations regarding family obligations, monitoring, psychological control, behavioral control, warmth/affection) in relation to five aspects of youth adjustment (social competence, prosocial behavior, academic achievement, externalizing behavior, internalizing behavior). Interactions between family-level and culture-level predictors were tested to examine whether cultural normativeness of parenting behaviors moderated the link between those behaviors and children's adjustment. More evidence was found for within- than between-culture differences in parenting predictors of youth adjustment. In seven of the eight instances in which cultural normativeness was found to moderate the link between parenting and youth adjustment, the link between a particular parenting behavior and youth adjustment was magnified in cultural contexts in which the parenting behavior was more normative.

Keywords

academic achievement; behavior problems; international; parenting; prosocial behavior; social competence

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Individuals in different countries conceptualize positive parenting and youth adjustment in ways that vary in some respects by cultural context. Parents in all countries share goals of rearing their children to be successful, competent members of their respective societies, but what parents believe is necessary and how they behave to achieve their goals varies around the world (Bornstein & Lansford, 2010). Cultural normativeness theory posits that parents'

behavior will be linked to better (or less adverse) child outcomes when parents behave in ways that are normative within their cultural context (Deater-Deckard & Dodge, 1997). The theory is that children interpret their parents' behavior in relation to the behavior of other parents in their community. This is consistent with the tenets of interpersonal acceptance-rejection theory, which holds that the meaning children make of parenting they receive occurs in relation to the cultural context, so that behavior in one context can be perceived as warm and loving, whereas the same behavior might be perceived as a sign of rejection in a different context, depending on cultural norms about the behavior (Rohner & Lansford, in press). In addition, if parents behave in a culturally normative way, they are more likely to receive approval and support from those around them, which increases parents' confidence and agency and children's perceptions of the legitimacy of their parents' behavior.

Previous empirical tests of normativeness theory have examined whether the normativeness of corporal punishment moderates the link between parents' use of corporal punishment and children's adjustment (e.g., Lansford et al., 2005) and has extended the test of normativeness moderation to other forms of discipline (Gershoff et al., 2010). This study is novel in empirically testing whether the normativeness of other parenting beliefs and behaviors moderates the link between these aspects of parenting and children's adjustment, which is important to understanding a major way that cultural contexts might operate. Thus, this study advances understanding of predictors of youth adjustment at multiple levels of influence, including between families within a particular cultural group as well as between cultural groups, with a particular focus on how the normativeness of five different aspects of parenting moderate the links between these aspects of parenting and children's adjustment. To accomplish this goal, we include data from 12 cultural groups in nine countries that vary in many culture-level factors that affect parenting and children's adjustment, including the normativeness of different parenting beliefs and behaviors (see, e.g., Bornstein, Putnick, & Lansford, 2011).

Youth Adjustment in Global Context

The present study takes a global perspective on understanding youth adjustment by focusing on three positive indicators of youth adjustment (i.e., social competence, prosocial behavior, and academic achievement) and two negative indicators of youth adjustment (i.e., externalizing and internalizing behavior) longitudinally in a diverse sample from 12 cultural groups in nine countries (China, Colombia, Italy, Jordan, Kenya, Philippines, Sweden, Thailand, and the United States), many of which are underrepresented in the developmental science literature. We recognize that culture and country are not equivalent; individuals in different countries can share the same culture (e.g., if families who share a culture immigrate to one country from another), and individuals in the same country can have different cultures (e.g., by virtue of their ethnicity, social class, region, or religion). Despite these complexities, here we refer to cultural groups rather than countries when describing the present study because we have included two groups from Italy (from two geographic regions) and three groups from the United States (African Americans, European Americans, and Latinos).

The three positive aspects of youth adjustment assessed in the present study map onto a subset of domains in the Five Cs theory, which characterizes positive youth development in terms of competence, confidence, connection, character, and caring or compassion (Lerner, Almerigi, Theokas, & Lerner, 2005). Adolescents' contribution to their families, schools, and broader society is regarded as being a product of the other Cs in the model (Lerner, Lerner, Bowers, & Geldhof, 2015). Social competence and academic achievement are both aspects of competence; prosocial behavior is indicative of connection, character, and caring. These aspects of positive youth adjustment have been found to be important in several cultural contexts. For example, connection to families was predictive of school engagement for Roma adolescents in Bulgaria (Abubakar & Dimitrova, 2016). The two negative aspects of youth adjustment, externalizing and internalizing, encompass the most frequently studied broadband types of behavior problems (Achenbach, 2014).

Parents and youth in different cultural contexts have different values regarding the merits of some aspects of youth adjustment. Kagitcibasi (2013) proposed a joint contextual and universalistic perspective to account for why particular patterns of adolescent development emerge in some contexts and how to characterize "optimal" development. For example, shyness was traditionally regarded as a more positive trait for children in China than in Canada, with shy children in China being well-liked by their peers and rated by teachers and parents as being socially competent but shy children in Canada being less well liked by their peers and rated by teachers and parents as being less socially competent (Chen, 2011). In our comparative study in nine countries, we sought to operationalize youth adjustment in a way that could be largely consistent across cultures.

First, we included social competence because of evidence that interpersonal skills are an important part of youth adjustment and are related to subsequent outcomes into adulthood (Greenberg et al., 2003); because social competence can be regarded as encompassing different behaviors in different cultural groups, our operationalization focused on factors such as understanding others' feelings that might be valued across groups, even if the way that the competence is demonstrated varies across groups. Second, we included prosocial behavior (i.e., voluntary, desirable actions aimed to help others) because these are positive deeds in their own right, and children's prosocial behavior promotes future positive adjustment (see Eisenberg, Spinrad, & Knafo-Noam, 2015). Third, we included academic achievement because, although academic achievement is stressed more in some countries than in others (Crabtree, 2014), academic achievement is nevertheless a marker of success in a major life domain during adolescence that predicts occupational and financial success as well as health into adulthood across countries (e.g., Robert Wood Johnson Foundation, 2013). Fourth, externalizing behaviors such as aggression and delinquency have been the focus of many international campaigns aimed at youth violence prevention (e.g., World Health Organization, 2015). Fifth, internalizing behavior is a cause of great concern because depression has been described as the "single largest contributor to the global burden of disease for people aged 15–19," and one of the three leading causes of mortality in young people is suicide (UNICEF, 2011, p. 27).

Parenting Predictors of Youth Adjustment

The parenting and child development literatures have focused more on parenting predictors of problematic aspects of youth adjustment than on parenting predictors of positive aspects of youth adjustment, but a growing body of research has been documenting aspects of parenting that promote positive youth adjustment. More parental monitoring is related to higher levels of academic achievement (Li, Fang, Stanton, Su, & Wu, 2003) and other aspects of positive adjustment (Napolitano et al., 2011). Several aspects of parenting, including behavioral control, have been related to youth social competence (Hillaker, Brophy-Herb, Villarruel, & Haas, 2008), although this may be due to greater parental involvement and investment rather than to control per se. Other aspects of parenting, such as psychological control, have been examined primarily as predictors of poor adjustment during adolescence (e.g., Barber, Stolz, & Olsen, 2005), but psychological control may have an inverse relation with positive adjustment. Parents' expectations regarding children's family obligations may set the stage for children's demonstration of prosocial behavior. In a study of Ngecha children in Gikuyu, Kenya, children were more likely to demonstrate prosocial behavior in situations involving family obligations, such as caring for younger siblings, doing household chores, and engaging in other types of labor for the benefit of the family, than in situations that did not involve family obligations (de Guzman, Edwards, & Carlo, 2005). A limitation of the majority of the research on parenting and youth adjustment is that it has been conducted primarily in North America and Western Europe; it is unclear to what extent these findings would generalize outside of these cultural contexts. In selecting parenting predictors to examine in relation to youth adjustment, we focused on five constructs that reflect different ways that parents can demonstrate involvement in their children's lives (monitoring, psychological control, behavioral control, and warmth/affection) and beliefs about how children should be involved in family life (expectations regarding family obligations).

Cultural Contexts of Parenting

Cultural contexts set the stage for parenting in part by giving parents and children a reference point for norms and expectations about how parents should behave toward children (Gottlieb & DeLoache, 2016). For example, in some cultural groups, parents are expected to relinquish both behavioral and psychological control as children transition into adolescence and become increasingly autonomous, whereas in other cultural groups, parents are expected to retain a great deal of control even during adolescence (e.g., Darling, Cumsille, Peña-Alampay, & Coatsworth, 2009; Qin, Pomerantz, & Wang, 2009). Deeply rooted cultural beliefs are thought to guide these behaviors. For example, parents' and children's expectations regarding children's family obligations differ across cultures (Lansford et al., 2016). Parents in different cultural contexts may have different goals for their children, which may guide parents' beliefs and behaviors (Keller et al., 2006).

Although cultural contexts shape parents' beliefs and behaviors, not all parents within a particular cultural group think and behave in the same way. There is variability within as well as between cultural contexts. However, if parents' beliefs and behaviors are largely congruent with those of other parents in their cultural context, this can be adaptive for both

parents and children. For example, in a study in six countries (China, India, Italy, Kenya, the Philippines, and Thailand), five of which were also included in the present study, cultural normativeness of corporal punishment was found to moderate the link between the frequency with which children are corporally punished and their internalizing and externalizing behavior problems such that more frequent corporal punishment predicted more internalizing and externalizing problems in all cultural groups, but the strength of this relation was weaker in countries in which corporal punishment is normative than in countries in which corporal punishment is not normative (Lansford et al., 2005). The normativeness of several other forms of discipline also has been found to moderate links between parents' use of those forms of discipline and children's adjustment (Gershoff et al., 2010). One explanation is that if parents are engaging in a behavior that is widely accepted by the cultural group, it will not indicate to children that their parents are out of control or rejecting them in particular but rather behaving as parents are expected to behave.

The Present Study

The present study extends the examination of cultural normativeness as a moderator to a wider range of parenting beliefs and behaviors and to positive youth adjustment outcomes, rather than just behavior problems to test whether normativeness theory applies more broadly than the case of parental discipline in relation to children's internalizing and externalizing behaviors. We addressed three research questions to understand within-culture and between-culture predictors of youth adjustment in 12 cultural groups. First, are within-culture differences in parenting associated with youth adjustment above and beyond demographic controls and prior adjustment? Second, are between-culture differences in parenting associated with differences in youth adjustment, controlling for demographics and prior adjustment? Third, are within-culture relations between parenting and youth adjustment moderated by the normativeness of the parenting beliefs and behaviors in the culture? In addressing these research questions we test two competing hypotheses: 1. Cultural normativeness of parenting behaviors moderates the relation between that type of parenting and youth adjustment. 2. Parenting behaviors are related to youth adjustment in the same way, regardless of how culturally normative they are. Underlying these hypotheses is the idea that the meaning delivered by parents' behavior may be more strongly related to youths' adjustment than the behavior itself (Khaleque & Rohner, 2012). If parents behave in a manner that is accepted and endorsed by their cultural group (is normative), on average, their behavior may be more likely to have intended effects on youth adjustment than if parents behave in a way that is at odds with the larger cultural group because adolescents interpret their parents' behavior from a perspective that involves social norms gathered from observing others in the community.

Method

Participants

Participants included 1,298 children (M = 8.29 years, SD = .66, range = 7 to 10 years; 51% girls), their mothers (n = 1,275), and their fathers (n = 1,032) at wave 1 of 5 annual waves. Families were drawn from Shanghai, China (n = 121), Medellín, Colombia (n = 108),

Naples, Italy (n = 100), Rome, Italy (n = 103), Zarqa, Jordan (n = 114), Kisumu, Kenya (n = 100), Manila, Philippines (n = 120), Trollhättan/Vänersborg, Sweden (n = 101), Chiang Mai, Thailand (n = 120), and Durham, North Carolina, United States (n = 111 European Americans, n = 103 African Americans, n = 97 Latinos). Participants were recruited through letters sent from schools. Response rates varied across countries (from 24% to nearly 100%), primarily because of differences in the schools' roles in recruiting. For example, in the United States, we were allowed to bring recruiting letters to the schools, and classroom teachers were asked to send the letters home with children. Children whose parents were willing for us to contact them to explain the study were asked to return a form to school with their contact information. We were then able to contact those families to try to obtain their consent to participate, scheduling interviews to take place in participants' homes. Much higher participation rates were obtained in countries in which the schools were more involved in recruiting. For example, in China, once the schools agreed to participate, the schools informed parents that the school would be participating in the study and allowed our researchers to use the school space to conduct the interviews. Virtually all of the parents in the Chinese sample agreed to participate once the schools informed them of the schools' participation.

Most parents (82%) were married, and nonresidential parents were able to provide data. Nearly all were biological parents, with 3% being grandparents, stepparents, or other adult caregivers. Sampling focused on including families from the majority ethnic group in each country; the exception was in Kenya where we sampled Luo (3rd largest ethnic group, 13% of population), and in the United States, where we sampled European American, African American, and Latino families. To ensure economic diversity, we included students from private and public schools and from high- to low-income families, sampled in proportions representative of each recruitment area. Child age and gender did not vary across countries. Data for the present study were drawn from interviews at the time of recruitment as well as two years and four years after recruitment (at waves 1, 3, and 5 of the larger study because these were the times at which data relevant to the current questions were collected). At the follow-up interviews two years after the initial interviews, 91% of the original sample continued to provide data (M age of children = 10.40 years, SD = .73); 83% of the original sample continued to provide data 4 years after the initial interviews (M age of children = 12.90 years, SD = .84). Participants who provided follow-up data did not differ from the original sample with respect to child gender, parents' marital status, or mothers' education.

Procedure and Measures

Table 1 provides the descriptive statistics for all parental behaviors and beliefs. Table 2 provides the descriptive statistics for the youth adjustment measures. Measures were administered in the predominant language of each country, following forward- and back-translation and meetings to resolve any item-by-item ambiguities in linguistic or semantic content (Erkut, 2010). Translators were fluent in English and the target language. In addition to translating the measures, translators noted items that did not translate well, were inappropriate for the participants, were culturally insensitive, or elicited multiple meanings and suggested improvements (Maxwell, 1996; Peña, 2007). Country coordinators and the translators reviewed the discrepant items and made appropriate modifications. Measures

were administered in Mandarin Chinese (China), Spanish (Colombia and the United States), Italian (Italy), Arabic (Jordan), Dholuo (Kenya), Filipino (the Philippines), Swedish (Sweden), Thai (Thailand), and American English (the United States and the Philippines).

Interviews lasted 1.5 to 2 hours at each wave and were conducted in participants' homes, schools, or at other locations chosen by the participants. Procedures were approved by local Institutional Review Boards (IRBs) at universities in each participating country. Mothers and fathers provided written consent, and children provided assent. Family members were interviewed separately to ensure privacy. Children were given small gifts or monetary compensation to thank them for their participation, and parents were given modest financial compensation for their participation, families were entered into drawings for prizes, or modest financial contributions were made to children's schools.

The following five measures of parents' beliefs and behaviors were administered when children were 10 years old, on average.

Family obligations—Mothers and fathers completed the respect for family and current assistance scales of the family obligations measure developed by Fuligni, Tseng, and Lam (1999). The measure included 7 items assessing views about the importance of respecting the authority of elders in the family, including parents, grandparents, and older siblings (e.g., Please rate how important it is to you that your child treat you with great respect; 1 = *not important* to 5 = *very important*) and 11 items assessing parents' expectations regarding how often children should help and spend time with the family on a daily basis (e.g., Please rate how often your child is expected to help out around the house; 1 = *almost never* to 5 = *almost always*). These 18 items were averaged to create a composite *Expectations of Family Obligations* scale for each reporter (α = .84 for mother and .86 for father reports; see Lansford et al., 2016, for additional information about this measure in the present sample).

Parental monitoring—Mothers and fathers answered 10 questions assessing parental monitoring from work by Conger, Ge, Elder, Lorenz, and Simons (1994) and Steinberg, Dornbusch, and Brown (1992). Five items captured how much parents try (0 = *do not try*, 1 = *try a little,* 2 = *try a lot*) to find out about their child's activities, such as with whom the child spends time. An additional 5 items measured the frequency (0 = *never* to 3 = *always*) with which parents limit the child's activities, such as how the child spends free time. The standardized items were averaged to yield a *Parental Monitoring* scale (α = .88 for mother and father reports; see Skinner et al., 2014, for additional information on this measure in the present sample).

Parental psychological control—Children completed a measure of psychological control and autonomy granting (Silk, Morris, Kanaya, & Steinberg, 2003). Children reported their level of agreement (1 = *strongly disagree* to 4 = *strongly agree*) with 11 statements about their parents. A *Parental Psychological Control* scale was formed by averaging the responses to 3 items including "My parents act cold and unfriendly if I do something they don't like" (α = .65). The construct of psychological control has been empirically validated in several cultural contexts (e.g., Barber et al., 2005).

Parental behavioral control—Parents completed the Parental Acceptance-Rejection/Control Questionnaire-Short Form (Rohner, 2005), including 5 items capturing behavioral control. Parents rated the frequency of control behaviors, such as insists on complete obedience, on a modified scale (1 = *never or almost never*, 2 = *once a month*, 3 = *once a week*, or 4 = *every day*). The items were averaged to create the *Parental Behavioral Control* scale (α = .54 for mother, .52 for father reports; see Putnick et al., 2015, for additional information about the measure in the present sample).

Parental warmth—The Parental Acceptance-Rejection/Control Questionnaire-Short Form also included 8 items capturing parental warmth on the same 4 point scale described above. Parents rated the frequency of affectionate behaviors, such as saying nice things to and taking a real interest in the child The items were averaged to yield the *Parental Warmth* scale (α = .83 for both mother and father reports; see Deater-Deckard et al., 2011, for additional information about the measure in this sample).

The following measures of youths' adjustment were administered when children were 10 years old, on average, and then again when they were 12 years old.

Positive youth development—Parents completed three measures of positive youth development. First, parents rated their child's social competence (1 = *very poor* to 5 = *very good*) using a measure adapted from Pettit, Harrist, Bates, and Dodge (1991). Seven items capturing social competence, such as "understanding others' feelings," were averaged to create the *Social Competence* scale (α = .81 for mother, .90 for father reports; see Putnick et al., 2015, for additional information about the measure in the present sample). Second, parents used a modified version of a measure developed by Pastorelli, Barbaranelli, Cermak, Rozsa, and Caprara (1997) to rate the frequency of their child's prosocial behavior, such as "tries to make sad people happier" on a 5-point scale (1 = *never* to 5 = *often*). The three items were averaged to yield a *Prosocial Behavior* scale (α = .65 for mother, .70 for father reports; see Pastorelli et al., 2016, for additional information about the measure in the present sample). Third, parents reported on their child's academic achievement across 6 subject areas (reading, writing, math, spelling, social studies, and science). The questions were adapted from the performance in academic subjects section of the Child Behavior Checklist, which has demonstrated criterion validity (Achenbach, 1991). Achievement was measured on a 4-point scale (1 = *failing*, 2 = *below average*, 3 = *average*, and 4 = *above average*). An overall *Academic Achievement* scale was created by averaging the ratings across all subject areas (α = .88 for mother, .89 for father reports; see Putnick et al., 2015, for additional information about the measure in the present sample).

Child problem behavior—Using Achenbach's (1991) Child Behavior Checklist, parents reported how often a child enacted a behavior or felt an emotion: never (coded as 0), sometimes (coded as 1), or often (coded as 2). The *Externalizing Behavior* scale summed across 33 items capturing behaviors such as lying, truancy, vandalism, bullying, drug and alcohol use, disobedience, tantrums, sudden mood change, and physical violence (α = .89 for mother, .87 for father reports). Similarly, the *Internalizing Behavior* scale summed across 31 items measuring behaviors and emotions such as loneliness, self-consciousness, nervousness, sadness, and anxiety (α = .88 for mother, .87 for father reports). The

Achenbach measures are among the most widely used instruments in international research, with translations in over 100 languages and strong, well-documented psychometric properties (e.g., Achenbach & Rescorla, 2006).

Analysis Plan

We estimated each age 12 outcome using a full information maximum likelihood multilevel model with a random intercept for culture using SAS PROC MIXED. The random intercept for culture is operationalized in a multilevel model by the estimation of the variance of the intercept residuals across cultures and captures the differences in the outcome across cultures (Enders & Tofighi, 2007). Each model controlled for child gender and age, parental education, family income, and the lagged version of the outcome (measured at age 10). For each parenting belief or behavior, we included both a within-culture predictor (measured by the family's deviation from the within-culture mean) and a between-culture predictor (measured by the deviation of the culture mean from the grand mean across all cultures; Enders & Tofighi, 2007). The between-culture predictors capture the impact of cultural normativeness of each parenting belief or behavior on the outcome. Using SAS ESTIMATE statements, we assessed whether the within- and between-culture effects of each parenting behavior were different (referred to as Model 1 in the tables, addressing the first two research questions with each dependent variable reported in a separate table, Tables 3–7). For each outcome, the models were re-estimated with the interactions between the within- and between-culture parenting predictors (referred to as Model 2 in the tables, addressing the third research question, again with each dependent variable reported in a separate table, Tables 3–7). These interactions assess whether the cultural normativeness of each parenting belief or behavior moderated the associations of within-culture deviations in parenting beliefs or behaviors on child adjustment.

Results

Preliminary Analyses

The multilevel nature of our data, families (n = 1,298) nested within cultures (n = 12), allowed us to examine both the within- and between-culture relations between parenting and youth adjustment. For each adjustment outcome, the majority of the variance was within culture. The ICC, the proportion of variance between cultures, was .07 for mother reports and .08 for father reports of child social competence. For child prosocial behavior, the between-culture ICC was only .02 for mother reports and .04 for father reports. The child school achievement between-culture ICCs were somewhat higher for mother and father reports at .12 and .14, respectively (we did not have school achievement data from China in wave 3, so China was not included in the school achievement models). For both externalizing and internalizing child behavior, the between culture ICCs were somewhat higher for mother reports (externalizing = .12, internalizing = .10) relative to father reports (externalizing = .08, internalizing = .05). These relatively low ICCs as well as the small number of cultures limit our power to detect between-culture effects.

Social Competence

The first of the five dependent variables that we examined was social competence. To address the first research question regarding whether within-culture differences in parenting are associated with youth adjustment above and beyond demographic controls and prior adjustment, we tested the first multilevel model. The model estimating mother-reported child social competence revealed several statistically significant relations (Table 3). Within culture, greater mother-reported expectations regarding the child's family obligations (relative to the cultural mean) were associated with greater child social competence (β = .090, SE = .042, p = .031). More maternal warmth relative to the cultural mean was also associated with greater social competence in children (β = .120, SE = .051, p = .019). In contrast, relative to the cultural mean, greater mother-reported parental monitoring and behavioral control were associated with less child social competence (monitoring: β = −.090, SE = .042, p = .032; control: β = −.113, SE = .040, p = .005). None of these within-culture effects were statistically significant when using father-reported data.

To address our second research question regarding between-culture differences in parenting associated with youth adjustment, controlling for demographic covariates and prior adjustment, we examined whether the between-culture effects differed from the within-culture effects. Based on father reports, cultures with more parental monitoring than the grand mean across cultures (i.e., cultures in which parental monitoring is more normative) reported higher social competence on average (β = .526, SE = .224, p = .035). This effect was statistically different from the non-significant within-culture effect of paternal monitoring (p = .049). None of the other between-culture effects for mother or father reports were statistically significant.

To address our third research question regarding whether the within-culture relations between parenting and youth adjustment are moderated by the cultural normativeness of the parenting beliefs and behaviors we added interactions between the within- and between-culture effects. Including these interactions revealed some moderation by the cultural normativeness of parenting. The positive within-culture association between mother's expectations regarding children's family obligations and child social competence was magnified in cultures with family obligation expectations greater than the grand mean, that is when higher expectations are more normative (β = .301, SE = .144, p = .036). The positive (although non-significant) within-culture association between father's warmth toward his child and child social competence was magnified in cultures with paternal warmth greater than the grand mean, that is when greater paternal warmth is more normative (β = .431, SE = .190, p = .024).

Prosocial Behavior

The second dependent variable we examined was prosocial behavior. Analyses to address each of the three research questions proceeded in the same manner as the analyses predicting social competence. Based on both mothers' and fathers' evaluations of their child's prosocial behavior (Table 4), there was evidence that greater parental warmth (relative to the within-culture mean) was associated with greater child prosocial behavior (mother-reported: β = .167, SE = .062, p = .007; father-reported: β = .121, SE = .062, p = .051). Based on mother-

reported prosocial behavior, there was also evidence that higher expectations about a child's family obligations (relative to the within-culture mean) were associated with greater child prosocial behavior (β = .193, SE = .050, $p < .001$), whereas, greater maternal control was associated with less prosocial behavior (β = −.146, SE = .048, $p = .003$). None of the between-culture effects measuring cultural normativeness were statistically significant.

When the interactions between the within- and between-culture effects were added, there was some evidence of moderation of the within-culture effects by cultural normativeness. The positive within-culture association between mother-reported warmth and child prosocial behavior was magnified in cultures where greater maternal warmth is more normative (β = .591, SE = .242, $p = .015$). In cultures in which high paternal monitoring was more normative, the negative relation between greater father-reported monitoring and prosocial behavior was magnified (β = −.499, SE = .156, $p = .002$).

Academic Achievement

For the third dependent variable, academic achievement, as seen in Table 5, there were significant within- and between-culture effects of parenting on academic achievement, although the effects varied for mother and father reports. Among mothers, greater monitoring relative to the culture mean was associated with lower academic achievement (β = −.083, SE = .032, $p = .010$). Among fathers, greater child-reported psychological control by parents (relative to the within-culture mean) was associated with lower academic achievement (β = −.063, SE = .022, $p = .004$), whereas greater paternal warmth within-culture was associated with higher academic achievement (β = .088, SE = .035, $p = .012$). Based on mother reports, cultures with higher maternal behavioral control relative to the grand mean (i.e., cultures in which maternal control was more normative) reported lower academic achievement on average (β = −.240, SE = .097, $p = .034$), which was significantly different from the non-significant within-culture effect ($p = .045$). In contrast, based on father reports, cultures with higher paternal warmth and child-reported parental psychological control relative to the grand mean across cultures reported higher academic achievement on average (psychological control: β = .408, SE = .096, $p = .005$; paternal warmth: β = .382, SE = .148, $p = .041$). That is, the cultures in which paternal warmth and parental psychological control were more normative reported higher academic achievement on average. The between-culture psychological control effect was significantly different from the negative within-culture effect ($p = .002$), but the between-culture effect of paternal warmth was not statistically different from the positive within-culture effect. There was no evidence of moderation of the within-culture effects by their cultural normativeness.

Externalizing Problem Behavior

Results for the fourth dependent variable, externalizing problem behaviors, are shown in Table 6. None of the within- or between-culture effects of parenting are statistically significantly related to mother-reported child externalizing problem behavior. In contrast, several between-culture effects are significant using father reports. Cultures with higher mean paternal monitoring relative to the grand mean (i.e., cultures in which paternal monitoring is more normative) were associated with lower levels of externalizing problems (β = −4.766, SE = 1.578, $p = .003$). This between-culture effect was statistically different

from the non-significant within-culture effect (p = .002). In contrast, cultures with higher mean parental psychological control and paternal warmth (relative to the grand means) reported more externalizing problems on average (psychological control: β = 4.884, SE = 1.129, $p < .001$; paternal warmth: β = 7.604, SE = 1.982, $p < .001$). That is, fathers reported more externalizing problems on average in cultures in which parental psychological control and paternal warmth were more normative. These effects were also significantly different from the non-significant within-culture effects ($p < .001$ for both).

Although none of the between- or within-culture interactions were significant when analyzing mother reports, the within-culture effect of father-reported expectations of child's family obligations was significantly moderated by its cultural normativeness when examining father reports. In cultures where high expectations for the family obligations of children are more normative, the negative relation between the within-culture expectations of family obligation scores and externalizing child problem behavior is magnified (β = −3.070, SE = 1.530, $p = .045$).

Internalizing Problem Behavior

The final dependent variable was internalizing problem behavior. Based on both mother and father reports (Table 7), within cultures, stronger expectations about children's family obligations were associated with fewer internalizing problem behaviors in children (mother-reports: β = −.891, SE = .430, $p = .039$; father-reports: β = −1.126, SE = .455, $p = .014$). Although none of the other within-culture effects were significant, cultures with higher mean parental psychological control and parental warmth (relative to the grand means) were associated with more internalizing problems based on both mother and father reports (psychological control: mother-report: β = 3.544, SE = 1.174, $p = .003$, father-report: β = 4.649, SE = 1.164, $p < .001$; parental warmth: mother-report: β = 4.509, SE = 2.278, $p = .048$, father-report: β = 4.400, SE = 2.044, $p = .032$). That is, parents reported more child internalizing problems, on average, in cultures in which parental psychological control and parental warmth were more normative. These effects were significantly different from the non-significant within-culture effects (psychological control: mother-report: $p = .002$, father-report: $p < .001$; parental warmth: mother-report: $p = .046$, father-report: $p = .020$). In addition, based on father-reported data, cultures with greater expectations of children's family obligations relative to the grand mean experienced fewer child internalizing problems on average (i.e., cultures in which high family obligation expectations was more normative reported fewer internalizing programs on average: β = −3.236, SE = 1.035, $p = .002$).

Although there was no evidence of moderation by cultural normativeness in the mother-reported model, the father-reported model showed evidence of moderation by the norms of expectations of children's family obligations, paternal monitoring, and psychological control by parents. In cultures where high expectations of children's family obligations are more normative, the negative relation between family obligation scores and child internalizing problem behavior was magnified (β = −3.197, SE = 1.569, $p = .042$). In cultures where more paternal monitoring is more normative, the positive within-culture relation between paternal monitoring and internalizing problem behavior was magnified (β = 2.403, SE = 1.227, $p = .050$). In contrast, in cultures where more psychological control by parents is more

normative, the negative within-culture relation between psychological control and internalizing problem behavior was dampened (β = 2.922, SE =.901, p = .001).

Discussion

In the current study, we addressed three research questions to understand within-culture and between-culture predictors of youth adjustment. Our first question was how deviations from the mean parenting behaviors within culture are related to youth adjustment. We found that, controlling for prior adjustment, sociodemographic covariates, and the between culture variation in the outcome (as measured by the variance of the intercept residual), more social competence was predicted by greater maternal expectations regarding children's family obligations, less maternal monitoring, less maternal behavioral control, and more maternal warmth; more prosocial behavior was predicted by greater maternal expectations regarding children's family obligations, less mother-reported behavioral control, and more maternal warmth; better academic achievement was predicted by less maternal monitoring, less child-reported psychological control by parents, and more paternal warmth; fewer internalizing behavior problems were predicted by higher maternal and paternal expectations regarding children's family obligations. Our second question was how between-culture differences in parenting (capturing the cultural normativeness of parenting) are associated with differences in youth adjustment. We found between-culture differences that were distinct from within culture-differences in the prediction of social competence, academic achievement, externalizing behaviors, and internalizing behaviors. Greater father-reported social competence was predicted in cultures with greater paternal monitoring relative to the grand mean. Mothers in cultures below the grand mean on mother-reported behavioral control reported higher academic achievement in their children; fathers in cultures above the grand mean on child-reported parental psychological control reported higher academic achievement on average. Fathers reported fewer child externalizing problems if they were in cultures above the grand mean on monitoring and below the grand mean on psychological control and warmth. Mothers and fathers reported fewer child internalizing problems if they were in cultures below the grand mean on psychological control and warmth. In addition, fathers reported fewer child internalizing problems in cultures where father-reported parental monitoring was above the grand mean. For our third question, we examined whether within-culture relations between parenting and youth adjustment are moderated by the normativeness of the parenting beliefs and behaviors in the culture (the between culture effects). We found evidence that eight of the links between within-culture parenting and youth adjustment were moderated by the normativeness of the parenting behavior or belief.

Consistent with the hypothesis derived from normativeness theory that more normative parenting beliefs and behaviors would be related to more positive youth development, we found that in seven of the eight instances of moderation by the cultural normativeness of parenting, the relation between a particular parenting belief or behavior and youth adjustment was magnified when the belief or behavior was more normative. For example, the relation between mothers' expectations regarding children's family obligations and children's social competence was stronger in cultures in which family obligation expectations were more normative. That is, youths were perceived as being more socially competent when their parents' expectations regarding their family obligations were well

aligned with the expectations of other parents in the community. Despite some evidence for moderation by normativeness, however, overall we found that most of the variance in social competence, prosocial behaviors, academic achievement, externalizing, and internalizing was within rather than between cultures. Consistent with the greater within- than between-culture differences in the youth adjustment outcomes, we also found more statistically significant predictors of these outcomes based on variations in parenting within rather than between cultures, although we caution that we were under-powered to detect between-culture effects because we had only 12 cultural groups.

Both youth adjustment and positive parenting may be defined in different ways around the world (e.g., Akinsola, 2013). The parenting beliefs and behaviors we included may also differ in the extent to which they are positive or negative aspects of parenting in different cultural groups. Our general pattern of within-culture findings was that, controlling for prior adjustment and sociodemographic covariates, parents' greater expectations regarding children's family obligations, less monitoring, less psychological control, less behavioral control, and more warmth were related to positive outcomes for youth, although significance of the findings varied somewhat by reporter and the outcome. Generally, the findings were stronger for mothers' than fathers' reports, which could be explained by mothers spending more time than fathers with their children and thus being more knowledgeable about and involved in their children's lives (e.g., Pew Research Center, 2016). Previous research has typically shown that more parental monitoring and behavioral control and less psychological control are related to better youth adjustment (Barber et al., 2005; Hillaker et al., 2008; Napolitano et al., 2011), but in our study more maternal monitoring was related to lower youth social competence and academic achievement, and more maternal behavioral control was related to lower youth social competence and prosocial behavior. Monitoring and behavioral control may represent mothers' attempts to manage children who lack social competence, but this explanation cannot fully account for our findings given that prior social competence was controlled in the analyses. The within-culture findings regarding psychological control were in the direction expected on the basis of previous research (e.g., Barber et al., 2005), but the between-culture findings were not, perhaps reflecting that cultures in which parents are expected to remain controlling during adolescence rather than relinquishing control to promote adolescents' autonomy and independence were also cultures that had higher youth academic achievement (Qin et al., 2009). The scale on which academic achievement was assessed also complicates the interpretation of the findings, as what is above or below average may be interpreted in different ways in different groups (Bempechat, Jimenez, & Boulay, 2002).

Notable strengths of this study included the longitudinal design with data provided by mothers, fathers, and youths in 12 cultural groups in nine countries. Three limitations are also worth noting. First, we focused on three aspects of positive adjustment that are deemed important in all of the urban cultural groups we studied, but there may be other aspects of positive adjustment that are important in a particular group that are not important in other cultural groups. For example, research with the Maasai has found that high jumping is a valued skill for adolescent and young adult males, with elevated status conferred on those males who can jump higher (Sobania, 2003). Likewise, different cultural groups problematize internalizing and externalizing problems in different ways. For example,

aggression is perceived more negatively in Thailand than in the United States, whereas anxiety and depression are considered more problematic in the United States (Weisz, Suwanlert, Chaiyasit, & Walter, 1987). Anthropological and qualitative work will be important to understanding culture-specific forms of youth adjustment in rich detail. Although positive parenting and youth adjustment may be defined differently in different groups, we measured them in the same way across groups, suggesting the need for caution in thinking about how well one group looks in comparison to others. Second, although we examined five aspects of parenting that have been described in previous research as being potentially important for youth adjustment, we do not claim to have investigated all aspects of parents' beliefs and behaviors that could be important in understanding what promotes positive youth adjustment. For example, specific coaching in social skills (Bandy & Moore, 2011), modeling and encouraging prosocial behaviors (Eisenberg, Eggum-Wilkens, & Spinrad, 2015), and involvement in adolescents' education (Hill et al., 2004) are aspects of parenting we did not assess but that could promote these forms of positive adjustment. Third, although our international sample is considerably more diverse than are the majority of samples in developmental research (see Arnett, 2008), we did not have nationally representative samples, and our findings should not be overgeneralized either to entire populations in the participating countries or to other countries not included in our sample. Fourth, many additional aspects of culture not captured by examining normativeness of expectations regarding family obligations, monitoring, psychological control, behavioral control, and warmth would be important to examine in future research. Finally, future research would benefit from studying mediation pathways where cultural norms would predict parents' behaviors which would in turn predict youth outcomes.

Our findings lead to three primary conclusions. First, youth social competence, prosocial behaviors, academic achievement, externalizing, and internalizing behavior problems were characterized by more within-culture than between-culture variation. Thus, in future research it would make sense to look for additional within-culture predictors of youth adjustment. Second, we found little evidence for between-culture differences in links between parenting and youth adjustment. These similarities contribute to confidence in broader generalizability of these links beyond the predominantly North American and Western European contexts in which they have been studied previously. Third, attempts to promote youth adjustment are likely to be more successful if they are made with an awareness of cultural norms regarding what are believed to be desirable outcomes for youth and what are believed to be the best ways to promote those outcomes, as well as attention to within-culture factors that foster positive youth adjustment. The take-home message for developmental scientists is that although more of the links between parenting and youth adjustment in this study were attributable to within-culture rather than between-culture effects, there was also evidence that the association between parenting and youth adjustment was strengthened when parenting beliefs and behaviors were culturally normative.

In terms of applications in practice and policy, interventions are more successful if they are tailored to take into account local beliefs and norms. For example, a program designed to improve child health by targeting behaviors associated with hygiene and hand washing practices was evaluated in Bangladesh (Luby et al., 2010). Field workers introduced soap or sanitizer and instructed mothers about when and how to wash their hands. The Bangladesh

program took into account local beliefs (e.g., the sanitizer used did not contain alcohol because many Muslims in Bangladesh are reluctant to use products that contain alcohol). The evaluation showed that waterless hand sanitizer was readily adopted by the community and reduced hand contamination as much as soap. This is just one illustration of how making cultural adaptations to interventions and parenting programs requires knowledge of the local population's customs, beliefs, preferences, and prohibitions.

At a broad level, there is evidence that laws can shape cultural norms, in part because laws function as a public instantiation of a society's collective beliefs about the acceptability of a particular behavior. For example, in an attempt to change parents' beliefs about the appropriateness of corporal punishment and ultimately their use of corporal punishment, 51 countries have outlawed all forms of corporal punishment as of February 2017 (Global Initiative to End All Corporal Punishment of Children, 2017). Changes in behavior do not always follow from changes in beliefs, but changing perceptions of the normativeness of particular behaviors has been a strategy used in many public health campaigns that could also be applied in attempts to improve parenting and, thereby, youth adjustment.

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Table 1

Descriptive Statistics for Parental Behaviors and Beliefs. Mean, (Standard Deviation), n

Group	Family Obligation Expectations		Parental Monitoring		Psych. Control	Behavioral Control		Parental Warmth	
	Mother	Father	Mother	Father	Child	Mother	Father	Mother	Father
China-Shanghai	3.691 (0.512) n=100	3.614 (0.554) n=98	1.481 (0.634) n=100	1.37 (0.667) n=97	1.426 (0.609) n=101	2.461 (0.345) n=99	2.584 (0.335) n=97	3.219 (0.511) n=100	3.19 (0.461) n=96
Colombia-Medellín	4.283 (0.361) n=100	4.349 (0.434) n=95	2.582 (0.448) n=100	2.297 (0.546) n=95	1.938 (0.637) n=100	3.372 (0.434) n=100	3.215 (0.494) n=95	3.851 (0.324) n=100	3.78 (0.346) n=95
Italy-Naples	4.039 (0.484) n=95	3.977 (0.499) n=83	2.499 (0.472) n=95	2.098 (0.545) n=83	2.046 (0.685) n=95	3.357 (0.445) n=95	3.084 (0.523) n=83	3.793 (0.234) n=95	3.661 (0.356) n=83
Italy-Rome	3.885 (0.411) n=99	3.707 (0.435) n=69	2.539 (0.36) n=99	1.928 (0.615) n=69	2.034 (0.618) n=99	3.129 (0.469) n=99	2.832 (0.505) n=69	3.61 (0.413) n=99	3.366 (0.512) n=69
Jordan-Zarqa	4.23 (0.4) n=112	4.185 (0.457) n=109	2.566 (0.346) n=112	2.19 (0.619) n=109	2.365 (0.694) n=112	2.786 (0.469) n=112	2.664 (0.523) n=109	3.591 (0.396) n=112	3.474 (0.487) n=109
Kenya-Kisumu	3.66 (0.559) n=95	3.687 (0.542) n=94	2.181 (0.476) n=95	2.104 (0.647) n=94	2.607 (0.739) n=95	2.829 (0.555) n=95	2.863 (0.53) n=94	3.203 (0.581) n=95	3.102 (0.597) n=94
Philippines-Manila	4.103 (0.51) n=100	3.95 (0.5) n=79	2.411 (0.518) n=100	2.211 (0.503) n=79	2.061 (0.638) n=103	2.909 (0.497) n=100	2.894 (0.51) n=79	3.789 (0.317) n=100	3.628 (0.441) n=79
Sweden-Trollhättan	3.258 (0.412) n=95	3.292 (0.418) n=72	2.319 (0.425) n=95	2.203 (0.358) n=72	1.534 (0.515) n=98	2.418 (0.52) n=95	2.308 (0.52) n=72	3.862 (0.213) n=95	3.714 (0.329) n=72
Thailand-Chiang Mai	4.008 (0.42) n=100	3.984 (0.478) n=81	2.136 (0.509) n=100	2.101 (0.596) n=82	1.911 (0.732) n=101	2.723 (0.427) n=100	2.737 (0.482) n=82	3.479 (0.431) n=100	3.322 (0.491) n=82
US-AA-Durham	3.859 (0.482) n=93	3.797 (0.463) n=50	2.749 (0.321) n=93	2.463 (0.439) n=50	1.75 (0.666) n=92	3.191 (0.482) n=93	3.188 (0.559) n=50	3.833 (0.263) n=93	3.749 (0.367) n=50
US-EA-Durham	3.487 (0.458) n=102	3.469 (0.456) n=72	2.467 (0.337) n=102	2.219 (0.488) n=72	1.552 (0.538) n=100	2.863 (0.485) n=102	2.752 (0.518) n=72	3.894 (0.164) n=102	3.751 (0.313) n=72
US-L-Durham	4.075 (0.443) n=78	4.136 (0.443) n=60	2.554 (0.614) n=78	2.299 (0.673) n=60	1.777 (0.637) n=80	3.193 (0.52) n=78	2.997 (0.573) n=61	3.817 (0.282) n=78	3.725 (0.389) n=61

Note. AA = African American, EA = European American, L = Latino.

Table 2

Descriptive Statistics for Youth Adjustment. Mean, (Standard Deviation), n

Group	Social Competence		Prosocial Behavior		Academic Achievement		Externalizing		Internalizing	
	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father
China-Shanghai	3.472 (0.602) n=84	3.549 (0.565) n=82	3.585 (0.672) n=84	3.589 (0.627) n=82	3.31 (0.439) n=80	3.37 (0.434) n=80	5.152 (3.882) n=84	5.272 (5.042) n=82	5.524 (5.112) n=84	5.518 (6.146) n=82
Colombia-Medellín	3.832 (0.6) n=85	3.931 (0.628) n=74	3.957 (0.672) n=85	4.032 (0.757) n=74	3.088 (0.581) n=85	3.146 (0.692) n=74	12.776 (9.061) n=85	8.973 (6.902) n=74	13.941 (7.915) n=85	8.815 (6.199) n=74
Italy-Naples	3.474 (0.603) n=94	3.454 (0.592) n=73	3.649 (0.858) n=94	3.616 (0.68) n=73	3.266 (0.538) n=94	3.365 (0.43) n=73	11.78 (7.745) n=94	10.151 (6.082) n=73	12.617 (8.169) n=94	9.972 (5.466) n=73
Italy-Rome	3.359 (0.648) n=99	3.397 (0.528) n=77	3.663 (0.746) n=99	3.511 (0.721) n=77	3.195 (0.421) n=99	3.24 (0.41) n=77	9.42 (6.343) n=99	8.662 (5.609) n=77	9.625 (7.343) n=99	9.565 (6.587) n=77
Jordan-Zarqa	3.807 (0.787) n=103	3.81 (0.762) n=100	3.578 (0.763) n=103	3.52 (0.779) n=100	3.724 (0.43) n=102	3.717 (0.45) n=101	13.198 (8.738) n=103	11.563 (9.01) n=101	10.298 (7.297) n=103	8.588 (6.692) n=101
Kenya-Kisumu	3.867 (0.614) n=89	3.919 (0.615) n=79	3.779 (0.838) n=89	3.717 (0.795) n=79	3.348 (0.453) n=89	3.395 (0.457) n=79	7.27 (6.947) n=89	8 (7.285) n=79	10.292 (7.535) n=89	10.013 (8.338) n=79
Philippines-Manila	3.579 (0.733) n=88	3.39 (0.604) n=70	3.742 (0.776) n=88	3.424 (0.639) n=70	3.318 (0.537) n=88	3.368 (0.442) n=70	12.227 (7.25) n=88	9.986 (6.992) n=70	11.394 (7.469) n=88	9.737 (6.211) n=70
Sweden-Trollhättan	3.839 (0.654) n=70	3.822 (0.54) n=53	3.619 (0.648) n=70	3.472 (0.59) n=53	3.298 (0.504) n=70	3.356 (0.44) n=53	4.563 (4.74) n=70	3.966 (3.523) n=53	4.616 (4.9) n=70	4.303 (3.723) n=53
Thailand-Chiang Mai	3.552 (0.523) n=95	3.553 (0.474) n=76	3.442 (0.659) n=95	3.351 (0.675) n=75	3.175 (0.461) n=95	3.162 (0.407) n=76	5.918 (5.164) n=95	5.816 (4.794) n=76	8.56 (6.473) n=95	7.458 (6.249) n=76
US-AA-Durham	3.744 (0.804) n=88	3.82 (0.818) n=50	3.553 (0.934) n=88	3.467 (0.971) n=50	3.182 (0.553) n=87	3.355 (0.575) n=50	8.165 (8.876) n=87	8.44 (9.063) n=50	6.643 (7.715) n=87	6.318 (7.489) n=50
US-EA-Durham	3.788 (0.72) n=95	3.748 (0.687) n=67	3.611 (0.767) n=95	3.418 (0.821) n=67	3.635 (0.482) n=95	3.751 (0.339) n=67	6.707 (6.673) n=95	6.083 (5.172) n=67	8.764 (6.774) n=95	7.632 (7.251) n=67
US-L-Durham	4.063 (0.634) n=71	3.875 (0.693) n=43	3.808 (0.845) n=71	3.643 (0.921) n=43	3.179 (0.476) n=72	3.194 (0.435) n=42	7.564 (6.872) n=72	7.468 (6.336) n=43	8.097 (6.796) n=72	7.496 (6.061) n=43

Note. AA = African American, EA = European American, L = Latino.

Table 3

FIML Multilevel Models Estimating Social Competence with Random Intercept Culture Differences

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Intercept	1.584	0.335	<.001	1.584	0.335	<.001	2.024	0.379	<.001	2.116	0.380	<.001
Child's Gender - Male	−0.016	0.035	0.650	−0.013	0.035	0.705	−0.080	0.039	0.043	−0.085	0.039	0.031
Child's Age	0.010	0.029	0.739	0.009	0.029	0.749	−0.007	0.032	0.839	−0.011	0.032	0.735
Family Income	0.008	0.009	0.376	0.008	0.009	0.398	0.020	0.010	0.044	0.018	0.010	0.063
Parental Education	−0.003	0.006	0.589	−0.002	0.006	0.734	−0.011	0.006	0.100	−0.010	0.006	0.129
Prior Outcome	0.546	0.027	<.001	0.543	0.027	<.001	0.496	0.032	<.001	0.484	0.033	<.001
Within Culture Effects (Deviations from Cultural Mean)												
Family Obligations	0.090	0.042	0.031	0.092	0.042	0.027	0.006	0.046	0.897	0.010	0.046	0.825
Parental Monitoring	−0.090	0.042	0.032	−0.091	0.042	0.029	0.037	0.038	0.329	0.033	0.038	0.376
Psychological Control (always child-reported)	−0.039	0.028	0.159	−0.041	0.029	0.160	−0.029	0.031	0.344	−0.014	0.034	0.687
Behavioral Control	−0.113	0.040	0.005	−0.110	0.041	0.008	−0.044	0.042	0.294	−0.025	0.043	0.558
Parental Warmth/Affection	0.120	0.051	0.019	0.142	0.054	0.009	0.059	0.049	0.224	0.085	0.049	0.085
Between Culture Effects (Grand Mean Centered Culture Means)												
Family Obligations	−0.038	0.151	0.805	−0.040	0.152	0.797	0.138	0.139	0.337	0.126	0.143	0.392
Parental Monitoring	0.105	0.296	0.729	0.100	0.299	0.744	0.526	0.224	0.035	0.547	0.230	0.033
Psychological Control (always child-reported)	0.068	0.192	0.728	0.073	0.194	0.714	−0.099	0.159	0.545	−0.108	0.163	0.520
Behavioral Control	−0.116	0.173	0.519	−0.119	0.175	0.512	−0.198	0.154	0.223	−0.188	0.158	0.257
Parental Warmth/Affection	−0.080	0.372	0.833	−0.066	0.375	0.865	−0.388	0.282	0.193	−0.401	0.290	0.191
Interactions between Level 1 and Level 2												
Family Obligations				0.301	0.144	0.036				0.075	0.157	0.636
Parental Monitoring				−0.215	0.113	0.058				−0.166	0.124	0.180
Psychological Control (always child-reported)				−0.037	0.082	0.652				−0.114	0.091	0.211
Behavioral Control				0.118	0.138	0.393				−0.249	0.170	0.145
Parental Warmth/Affection				0.311	0.200	0.121				0.431	0.190	0.024
Within- & Between-Culture Effect Differences												
Family Obligations	−0.13	0.155	0.423				0.132	0.146	0.377			
Parental Monitoring	0.195	0.300	0.527				0.489	0.227	0.049			

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Psychological Control (always child-reported)	0.107	0.194	0.591				−0.070	0.163	0.676			
Behavioral Control	−0.002	0.177	0.989				−0.154	0.160	0.352			
Parental Warmth/Affection	−0.200	0.375	0.604				−0.447	0.287	0.142			
Intercept Residual Variance	0.008	0.005	0.056	0.008	0.005	0.054	0.004	0.004	0.113	0.005	0.004	0.099
Level 1 Residual Variance	0.298	0.013	<.001	0.295	0.013	<.001	0.281	0.014	<.001	0.277	0.014	<.001

Note: Outcomes and covariates are reported by same reporter unless otherwise noted.

Table 4

FIML Multilevel Models Estimating Prosocial Behavior with Random Intercept Capturing Culture Differences

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Intercept	2.318	0.382	<.001	2.319	0.381	<.001	2.821	0.448	<.001	2.890	0.447	<.001
Child's Gender - Male	−0.105	0.042	0.014	−0.107	0.042	0.011	−0.074	0.050	0.141	−0.074	0.050	0.134
Child's Age	−0.041	0.033	0.212	−0.040	0.033	0.225	−0.042	0.039	0.280	−0.045	0.039	0.247
Family Income	0.005	0.011	0.649	0.003	0.011	0.763	0.011	0.012	0.376	0.009	0.012	0.467
Parental Education	0.001	0.007	0.923	0.002	0.007	0.773	−0.015	0.008	0.068	−0.014	0.008	0.081
Prior Outcome	0.482	0.030	<.001	0.476	0.030	<.001	0.373	0.037	<.001	0.362	0.037	<.001
Within Culture Effects (Deviations from Cultural Mean)												
Family Obligations	0.193	0.050	0.000	0.205	0.051	<.001	0.069	0.058	0.233	0.078	0.058	0.176
Parental Monitoring	−0.074	0.051	0.145	−0.073	0.051	0.149	−0.021	0.048	0.654	−0.022	0.047	0.642
Psychological Control (always child-reported)	−0.021	0.033	0.532	−0.040	0.035	0.253	−0.072	0.039	0.068	−0.054	0.043	0.202
Behavioral Control	−0.146	0.048	0.003	−0.131	0.050	0.009	0.004	0.053	0.944	0.026	0.054	0.627
Parental Warmth/Affection	0.167	0.062	0.007	0.211	0.065	0.001	0.121	0.062	0.051	0.156	0.062	0.013
Between Culture Effects (Grand Mean Centered Culture Means)												
Family Obligations	0.122	0.105	0.248	0.116	0.105	0.268	0.142	0.129	0.271	0.122	0.128	0.340
Parental Monitoring	−0.179	0.204	0.381	−0.193	0.203	0.344	−0.125	0.204	0.541	−0.102	0.203	0.615
Psychological Control (always child-reported)	0.193	0.133	0.147	0.197	0.132	0.137	0.117	0.146	0.424	0.117	0.145	0.418
Behavioral Control	0.033	0.118	0.778	0.039	0.118	0.740	0.140	0.138	0.312	0.152	0.137	0.268
Parental Warmth/Affection	0.220	0.258	0.393	0.244	0.257	0.341	0.118	0.256	0.645	0.118	0.254	0.643
Interactions between Level 1 and Level 2												
Family Obligations				0.104	0.174	0.551				0.058	0.197	0.767
Parental Monitoring				−0.230	0.137	0.093				−0.499	0.156	0.002
Psychological Control (always child-reported)				0.111	0.099	0.260				−0.145	0.114	0.206
Behavioral Control				0.028	0.167	0.866				−0.235	0.215	0.276
Parental Warmth/Affection				0.591	0.242	0.015				0.431	0.241	0.074
Within- & Between-Culture Effect Differences												
Family Obligations	−0.072	0.115	0.534				0.073	0.141	0.605			
Parental Monitoring	−0.105	0.211	0.620				−0.104	0.208	0.619			

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Psychological Control (always child-reported)	0.214	0.137	0.119				0.189	0.153	0.218			
Behavioral Control	0.180	0.127	0.157				0.136	0.148	0.359			
Parental Warmth/Affection	0.053	0.264	0.841				−0.003	0.263	0.991			
Intercept Residual Variance	0.000			0.000			0.000			0.000		
Level 1 Residual Variance	0.435	0.019	<.0001	0.431	0.019	<.0001	0.452	0.023	<.001	0.443	0.023	<.001

Note: Outcomes and covariates are reported by same reporter unless otherwise noted.

Table 5

FIML Multilevel Models Estimating Academic Achievement with Random Intercept Capturing Culture Differences

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Intercept	1.159	0.249	<.001	1.155	0.250	<.001	0.654	0.250	0.011	0.638	0.250	0.013
Child's Gender - Male	−0.045	0.026	0.081	−0.045	0.026	0.081	−0.029	0.028	0.299	−0.029	0.028	0.293
Child's Age	−0.010	0.021	0.646	−0.009	0.021	0.672	0.041	0.022	0.063	0.042	0.022	0.052
Family Income	0.022	0.007	0.002	0.023	0.007	0.001	0.011	0.008	0.142	0.010	0.008	0.178
Parental Education	0.012	0.004	0.009	0.010	0.005	0.025	0.016	0.005	0.000	0.016	0.005	0.001
Prior Outcome	0.595	0.028	<.001	0.598	0.029	<.001	0.570	0.030	<.001	0.571	0.030	<.001
Within Culture Effects (Deviations from Cultural Mean)												
Family Obligations	0.019	0.031	0.539	0.020	0.031	0.508	0.009	0.033	0.783	0.012	0.033	0.714
Parental Monitoring	−0.083	0.032	0.010	−0.059	0.039	0.132	−0.025	0.028	0.370	0.017	0.036	0.643
Psychological Control (always child-reported)	−0.014	0.020	0.481	−0.016	0.022	0.470	−0.063	0.022	0.004	−0.062	0.025	0.014
Behavioral Control	−0.013	0.029	0.664	−0.013	0.031	0.668	0.005	0.029	0.862	0.011	0.031	0.727
Parental Warmth/Affection	0.065	0.039	0.091	0.056	0.039	0.157	0.088	0.035	0.012	0.091	0.035	0.010
Between Culture Effects (Grand Mean Centered Culture Means)												
Family Obligations	0.094	0.090	0.320	0.094	0.091	0.321	−0.109	0.076	0.194	−0.113	0.076	0.176
Parental Monitoring	0.182	0.177	0.329	0.191	0.178	0.310	0.337	0.162	0.076	0.348	0.159	0.066
Psychological Control (always child-reported)	0.221	0.135	0.132	0.221	0.136	0.134	0.408	0.096	0.005	0.404	0.095	0.005
Behavioral Control	−0.240	0.097	0.034	−0.243	0.098	0.033	−0.166	0.081	0.088	−0.170	0.080	0.078
Parental Warmth/Affection	0.067	0.227	0.773	0.059	0.229	0.802	0.382	0.148	0.041	0.383	0.146	0.040
Interactions between Level 1 and Level 2												
Family Obligations				−0.031	0.106	0.774				−0.033	0.112	0.767
Parental Monitoring				−0.181	0.184	0.326				−0.379	0.207	0.068
Psychological Control (always child-reported)				0.013	0.065	0.839				0.002	0.070	0.972
Behavioral Control				−0.027	0.105	0.795				−0.108	0.120	0.369
Parental Warmth/Affection				−0.103	0.160	0.520				0.079	0.138	0.568
Within- & Between-Culture Effect Differences												
Family Obligations	0.075	0.094	0.437				−0.118	0.083	0.183			
Parental Monitoring	0.264	0.180	0.171				0.361	0.164	0.062			

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	SE	p-val	b	SE	p-val	b	SE	p-val	b	SE	p-val
Psychological Control (always child-reported)	0.235	0.137	0.114				0.471	0.100	0.002			
Behavioral Control	−0.227	0.101	0.045				−0.171	0.085	0.085			
Parental Warmth/Affection	0.002	0.230	0.994				0.294	0.152	0.096			
Intercept Residual Variance	0.002	0.002	0.154	0.002	0.002	0.149	0.000	0.001	0.436	0.000	0.001	0.452
Level 1 Residual Variance	0.153	0.007	<.001	0.152	0.007	<.001	0.131	0.007	<.001	0.130	0.007	<.001

Note: Outcomes and covariates are reported by same reporter unless otherwise noted.

Table 6

FIML Multilevel Models Estimating Externalizing Behavior with Random Intercept Capturing Culture Differences

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Intercept	3.348	3.121	0.284	3.293	3.125	0.293	−2.217	3.240	0.494	−2.029	3.234	0.531
Child's Gender - Male	0.409	0.349	0.240	0.411	0.349	0.239	0.339	0.380	0.372	0.376	0.378	0.321
Child's Age	0.041	0.282	0.885	0.049	0.283	0.862	0.416	0.296	0.161	0.413	0.295	0.163
Family Income	−0.165	0.088	0.061	−0.160	0.088	0.071	−0.188	0.096	0.049	−0.186	0.095	0.052
Parental Education	−0.034	0.058	0.565	−0.036	0.059	0.544	0.073	0.062	0.236	0.064	0.062	0.302
Prior Outcome	0.626	0.025	<.001	0.623	0.025	<.001	0.580	0.030	<.001	0.572	0.030	<.001
Within Culture Effects (Deviations from Cultural Mean)												
Family Obligations	−0.594	0.409	0.146	−0.637	0.411	0.121	−0.714	0.440	0.105	−0.698	0.438	0.111
Parental Monitoring	0.531	0.419	0.206	0.519	0.419	0.216	0.235	0.369	0.525	0.290	0.366	0.429
Psychological Control (always child-reported)	0.114	0.275	0.679	0.155	0.288	0.592	0.010	0.303	0.972	−0.191	0.325	0.558
Behavioral Control	0.709	0.404	0.080	0.513	0.418	0.220	0.382	0.421	0.365	0.193	0.430	0.654
Parental Warmth/Affection	−0.367	0.512	0.474	−0.471	0.538	0.382	−0.472	0.477	0.322	−0.618	0.480	0.199
Between Culture Effects (Grand Mean Centered Culture Means)												
Family Obligations	1.682	1.050	0.136	1.711	1.061	0.134	−1.030	0.998	0.303	−0.950	0.993	0.339
Parental Monitoring	−0.720	2.060	0.733	−0.771	2.083	0.718	−4.766	1.578	0.003	−4.878	1.566	0.002
Psychological Control (always child-reported)	1.975	1.338	0.167	2.011	1.353	0.164	4.844	1.129	<.001	4.890	1.121	<.001
Behavioral Control	−0.603	1.187	0.622	−0.607	1.202	0.624	−0.568	1.067	0.595	−0.606	1.061	0.568
Parental Warmth/Affection	4.997	2.596	0.079	5.035	2.625	0.080	7.604	1.982	0.000	7.773	1.969	<.001
Interactions between Level 1 and Level 2												
Family Obligations				−1.046	1.439	0.467				−3.070	1.530	0.045
Parental Monitoring				1.152	1.133	0.310				2.017	1.189	0.090
Psychological Control (always child-reported)				0.045	0.816	0.957				1.459	0.873	0.095
Behavioral Control				1.781	1.377	0.196				2.030	1.665	0.223
Parental Warmth/Affection				−2.216	2.001	0.268				−2.583	1.841	0.161
Within- & Between-Culture Effect Differences												
Family Obligations	2.276	1.112	0.059				−0.316	1.087	0.771			
Parental Monitoring	−1.251	2.110	0.564				−5.000	1.610	0.002			

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Psychological Control (always child-reported)	1.862	1.365	0.197				4.833	1.182	<.001			
Behavioral Control	−1.312	1.240	0.310				−0.950	1.141	0.405			
Parental Warmth/Affection	5.364	2.649	0.065				8.076	2.046	<.001			
Intercept Residual Variance	0.181	0.236	0.222	0.195	0.241	0.210	0.000			0.000		
Level 1 Residual Variance	29.668	1.332	<.001	29.525	1.326	<.001	27.028	1.377	<.001	26.602	1.355	<.001

Note: Outcomes and covariates are reported by same reporter unless otherwise noted.

Table 7

FIML Multilevel Models Estimating Internalizing Behavior with Random Intercept Capturing Culture Differences

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Intercept	3.356	3.175	0.291	3.358	3.174	0.290	2.305	3.351	0.492	2.626	3.331	0.431
Child's Gender - Male	−0.934	0.366	0.011	−0.922	0.366	0.012	−1.009	0.393	0.011	−0.999	0.390	0.011
Child's Age	0.118	0.289	0.683	0.120	0.289	0.678	0.142	0.307	0.643	0.123	0.305	0.687
Family Income	0.004	0.092	0.966	0.010	0.092	0.913	−0.088	0.099	0.374	−0.095	0.098	0.336
Parental Education	−0.047	0.061	0.441	−0.049	0.061	0.420	0.031	0.064	0.629	0.022	0.064	0.732
Prior Outcome	0.608	0.028	<.001	0.607	0.028	<.001	0.547	0.032	<.001	0.549	0.032	<.001
Within Culture Effects (Deviations from Cultural Mean)												
Family Obligations	−0.891	0.430	0.039	−0.924	0.433	0.033	−1.126	0.455	0.014	−1.104	0.451	0.015
Parental Monitoring	0.055	0.442	0.901	0.027	0.441	0.952	0.309	0.382	0.419	0.364	0.378	0.337
Psychological Control (always child-reported)	−0.255	0.289	0.377	−0.160	0.304	0.598	−0.030	0.313	0.924	−0.435	0.335	0.196
Behavioral Control	0.482	0.421	0.253	0.257	0.436	0.556	0.638	0.430	0.139	0.536	0.438	0.221
Parental Warmth/Affection	−0.177	0.536	0.741	−0.261	0.563	0.643	−0.504	0.492	0.306	−0.528	0.494	0.286
Between Culture Effects (Grand Mean Centered Culture Means)												
Family Obligations	−0.629	0.908	0.489	−0.628	0.906	0.489	−3.236	1.035	0.002	−3.222	1.025	0.002
Parental Monitoring	−2.701	1.814	0.137	−2.728	1.810	0.132	−2.952	1.630	0.070	−3.027	1.611	0.061
Psychological Control (always child-reported)	3.544	1.174	0.003	3.573	1.172	0.002	4.649	1.164	<.001	4.662	1.151	<.001
Behavioral Control	1.945	1.027	0.058	1.917	1.025	0.062	1.751	1.109	0.115	1.638	1.099	0.136
Parental Warmth/Affection	4.509	2.278	0.048	4.542	2.274	0.046	4.400	2.044	0.032	4.623	2.022	0.023
Interactions between Level 1 and Level 2												
Family Obligations				0.180	1.514	0.906				−3.197	1.569	0.042
Parental Monitoring				−0.286	1.194	0.811				2.403	1.227	0.050
Psychological Control (always child-reported)				−0.701	0.859	0.415				2.922	0.901	0.001
Behavioral Control				2.593	1.450	0.074				0.087	1.719	0.960
Parental Warmth/Affection				−1.625	2.105	0.440				0.298	1.898	0.875
Within- & Between-Culture Effect Differences												
Family Obligations	0.261	0.985	0.791				−2.110	1.126	0.061			
Parental Monitoring	−2.756	1.877	0.142				−3.261	1.664	0.050			

	Mother-Report Model 1			Mother-Report Model 2			Father-Report Model 1			Father-Report Model 2		
	b	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**	**b**	**SE**	**p-val**
Psychological Control (always child-reported)	3.800	1.207	0.002				4.678	1.219	0.000			
Behavioral Control	1.463	1.088	0.179				1.113	1.182	0.347			
Parental Warmth/Affection	4.687	2.344	0.046				4.904	2.104	0.020			
Intercept Residual Variance	0.000			0.000			0.000			0.000		
Level 1 Residual Variance	32.911	1.467	<.001	32.769	1.461	<.001	29.005	1.477	<.001	28.326	1.4427	<.001

Note: Outcomes and covariates are reported by same reporter unless otherwise noted.