

# Longitudinal Associations between Maternal Involvement, Cultural Orientations, and Prosocial Behaviors Among Recent Immigrant Latino Adolescents

Alexandra N. Davis<sup>1</sup> · Gustavo Carlo<sup>2</sup> · Cara Streit<sup>1</sup> · Seth J. Schwartz<sup>3</sup> · Jennifer B. Unger<sup>4</sup> · Lourdes Baezconde-Garbanati<sup>4</sup> · Jose Szapocznik<sup>3</sup>

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**Abstract** Prosocial behaviors (i.e., actions that benefit others) are important markers of healthy social functioning, and understanding the factors that predict such outcomes among recent immigrant Latino adolescents is important. The current study examines the longitudinal associations between maternal involvement and prosocial behaviors via collectivism values. Data comes from a longitudinal project (Construyendo Oportunidades Para los Adolescentes Latinos) of 302 recently immigrated U.S. Latina/o adolescents (53.3% male, average age = 14.51 years old). The current study uses data from three times points across 2 years. The results demonstrated that maternal involvement was positively associated with collectivism values. Collectivism was positively associated with changes in prosocial behaviors. There was also partial support for a reverse-causal model. Discussion focuses on the links among parenting, cultural values, and prosocial behaviors among immigrant U.S. Latina/o adolescents.

**Keywords** Maternal involvement · Cultural values · Prosocial behaviors · Latina/o youth

## Introduction

Understanding the adjustment of immigrant youth in the United States (U.S.) is an important area of research.

Currently, 35.5% of U.S. Latina/o individuals were born outside of the U.S. (Krogstad and Lopez 2014). Additionally, the Latina/o population is the youngest ethnic group in the U.S., with 32.4% of the U.S. Latina/o population younger than 18 years old (Patten 2016). With a growing population of Latina/o youth living in the U.S., it is important to understand factors that foster positive development among this population. While previous research has examined the adjustment of U.S. Latina/o youth, much of the existing research focuses on negative adjustment indices (i.e., aggression, delinquency; see Rodriguez and Morrobel 2004). While understanding negative adjustment outcomes is important, examining indicators of positive adjustment among youth is of equal importance. Focusing on positive development among ethnic minority populations helps to avoid deficit-approaches of ethnic minority development and promotes a strength-based approach (Smith 2006). Therefore, research examining predictors of positive behavioral outcomes in Latina/o youth, particularly recent immigrant youth, is valuable from a scientific and applied perspective.

One indicator of positive psychological and behavioral adjustment is prosocial behaviors (i.e., actions intended to benefit others; Carlo and Randall 2002). Prosocial behaviors include a variety of helping behaviors, such as comforting others, volunteering, and donating to charity. Three identified forms of prosocial behaviors that are commonly expressed among adolescents are emotional, dire, and compliant prosocial behaviors. Emotional prosocial behaviors include helping others in emotionally evocative situations. Dire prosocial behaviors include helping others in emergency situations. Compliant prosocial behaviors include helping others when asked (Carlo and Randall 2002). These three forms of helping are often expressed in the home and/or toward known others (see Carlo and

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✉ Alexandra N. Davis  
alexandavis@unm.edu

<sup>1</sup> University of New Mexico, Albuquerque, NM, USA

<sup>2</sup> University of Missouri, Columbia, MO, USA

<sup>3</sup> University of Miami, Coral Gables, FL, USA

<sup>4</sup> University of Southern California, Los Angeles, CA, USA

Randall 2002), and are therefore commonly expressed among adolescents. Additionally, these three forms of helping tend to co-occur frequently because of the common opportunities to help within the home (e.g., Carlo and Randall 2002; Davis et al. 2017). There is growing evidence that children and youth who exhibit high levels of prosocial behaviors demonstrate better academic outcomes (Wentzel 1993), positive interpersonal relationships (Markiewicz et al. 2001), fewer aggressive and antisocial behaviors (including substance use problems; Roos et al. 2014), and improved mental health (Jenkinson, et al. 2013), though research with ethnic minority populations is lacking. Thus, research on these prosocial behaviors in U.S. Latina/o youth can further our understanding of positive adjustment in this population.

It is important to consider factors that promote prosocial behaviors among adolescents in order to foster positive development and social competence. Because familism values (viewing oneself as part of the larger collective; duty and obligation toward family members; Hardway and Fuligni 2006) are strongly endorsed among many U.S. Latina/o families, considering family processes might be important in understanding positive youth adjustment. Additionally, socialization theories suggest that parents are primary socializers of youth's social behaviors (Darling and Steinberg 1993; Padilla-Walker 2014). Because recently immigrated families are in the process of adapting to a new society and dominant culture, teaching culture-related values may be highly salient for parents and influential in predicting adolescents' prosocial behaviors, highlighting the importance of examining parenting and cultural socialization processes among this specific population. Therefore, it is important to examine how cultural values might play a role in the associations between parenting and prosocial behaviors. The current study examines the longitudinal associations between maternal involvement, cultural value orientation (collectivism), and prosocial behaviors among recently immigrated U.S. Latina/o adolescents. Additionally, control systems theory suggests that family members influence each other in dynamic ways. While parents socialize children, children also influence their environments and may shape parenting behaviors (Bell 1977). Therefore, to better understand reciprocal effects, we also examined the associations among adolescents' prosocial behaviors, collectivism values, and parents' involvement in a reverse-causal model.

### Theoretical Orientation

Scholars have argued for the importance of examining both socialization experiences and individual level variables, such as cultural orientations, in predicting positive outcomes among ethnic minority youth (Fuller and Garcia Coll

2010). The culturally-based socialization model of value-based behaviors (Knight et al. 2003; Knight and Carlo 2012) suggests that there are multiple socialization agents that play in Latina/o adolescents' lives that ultimately predict prosocial behaviors. Family processes, such as maternal involvement, are prominent forces in adolescents' acquisition of cultural values. According to this model, parenting processes predict adolescents' social cognitions, including cultural orientations, which predict adolescents' tendencies to engage in prosocial behaviors (see Knight and Carlo 2012). Importantly, adolescence is a time of increasing sociocognitive skills, cognitive development, and identity exploration and is therefore a developmental period when youth may be particularly attuned to the messages occurring within the family context (see Knight and Carlo 2012). Therefore, based on cultural socialization theories, the current study examined the longitudinal associations among maternal involvement, collectivism values, and prosocial behaviors among recently immigrated Latina/o adolescents.

### Maternal Involvement and Prosocial Behaviors

Parents serve as important socialization agents of their adolescents' prosocial development (see Padilla-Walker 2014). Maternal involvement, defined as participation in children's experiences (see Jeynes 2007), is one aspect of parenting that may be especially relevant when considering adolescents' prosocial behaviors. Mothers who are involved with their youth may foster prosocial behaviors by creating positive relationships that ultimately foster concern for others and actions oriented toward others (see Carlo et al. 1999). Involved mothers may also become models for prosocial actions (see Carlo et al. 1999). Social learning theory suggests that parents model appropriate behaviors for their children through interactions with others (Bandura 1977). The accumulation of evidence on parenting and youth's prosocial behaviors suggests that warm, supportive parenting, specific positive parenting practices (e.g., moral conversations, social rewards for prosocial action), and inductive discipline (other-oriented conversations), which are all typically characteristic of involved parents, are positively associated with prosocial behaviors in adolescents (see Janssens and Deković 1997; Krevans and Gibbs 1996).

Research with racially diverse adolescents has demonstrated that parental support and monitoring (aspects of parental involvement) are positively associated with adolescents' prosocial behaviors (Cantillon 2006; see Padilla-Walker 2014). One study with U.S. Latina/o youth found that parental monitoring (tracking children; one component of involved parenting) was positively associated with helping behaviors in the family (Kerr et al. 2003). Other research with U.S. Latina/o youth, has demonstrated that

other components of maternal involvement, such as prosocial parenting practices of mothers (fostering helping behaviors in the home) are positively associated with prosocial behaviors (Calderón-Tena et al. 2011; Carlo et al. 2011). Maternal warmth has also been positively linked to multiple forms of prosocial behaviors among U.S. Latina/o adolescents (Davis et al. 2015). Researchers have called for more research examining parenting behaviors among Latina/os in the U.S. to avoid assuming culture group invariance in parenting processes (see Grau et al. 2009). Additionally, investigations of more recently immigrated Latino families are needed to better understand the nuances within the U.S. Latina/o population. Importantly, the majority of the existing studies have not been conducted with recent immigrant samples, which is a large gap in the existing literature. The current study will contribute to the existing literature by examining generalizability of the links between parenting and prosocial behaviors across time in a sample of recent U.S. Latina/o immigrants.

### Maternal Involvement and Collectivism Values

Although family relationships are important in many cultural groups, most Latino families strongly endorse a collectivistic orientation (Delgado-Gaitan 1994). Collectivism is a cultural belief and value system often studied by cultural scholars (Triandis 1988). Collectivism is an emphasis on the needs and goals of the group (broader social groups, including family unit) over the self (Triandis 1990). Cultures that tend to endorse a collectivist orientation tend to focus more on duty towards the larger group and the family than individual pleasure and personal success (Triandis 1990). Collectivism values also promote cooperative interactions with others because of the value placed on harmonious, supportive relationships. Latino families typically tend to endorse collectivist values to a higher degree than European American families (Raeff et al. 2000), and researchers have demonstrated that among Latino families, family obligation and assistance to family members may be particularly salient (Hardway and Fuligni 2006). Amongst recently immigrated U.S. Latino families, one might expect a strong endorsement of collectivism values, and maternal involvement may serve an important role in facilitating the transmission of such values. Parents' socialization goals often arise from their own cultural orientations and ultimately influence the internalization of culture-related values in youth (see Super and Harkness 2002). Parenting behaviors and parents' cultural values are important predictors of adolescents' own cultural values (Knight et al. 2011). Among recent immigrant families, enculturative processes (process of gaining knowledge and traditional values associated with the culture of origin; Gonzales et al. 2004) may be a socialization goal among parents; and therefore parents'

may aim to socialize traditional values in their adolescents, including collectivism values. Maternal involvement in Latino families, therefore, may be related to Latina/o adolescents' cultural beliefs and values because of the importance of parents as socialization agents. In Latino families, involvement in adolescents' lives might be a top priority for parents, and ultimately may be associated with reinforcing adolescents' endorsement of collectivism orientations. Researchers have called for studies examining parenting practices within Latino families in order to better understand practices that promote healthy development within this specific cultural group. There is evidence that the majority of U.S. Latino parents tend to fit into a "protective" parenting style, which involves high levels of warmth and involvement and high levels of demandingness (Domènech et al. 2009). Therefore, examining maternal involvement may be a useful avenue for better understanding how parenting practices predict adolescents' positive developmental outcomes.

Research examining maternal involvement and cultural orientation in U.S. Latino families is scarce. However, existing research suggests that aspects of involved parenting are related to cultural values among Latina/o adolescents. Scholars have suggested that Latina/o parents tend to engage in behaviors that promote a collectivistic orientation in order to socialize youth in a manner consistent with parents' cultural worldviews (Harwood et al. 2002). Specifically, parents who endorse traditional cultural values themselves may be more likely to engage in practices designed to foster such values in youth. These socialization practices, in turn, predict traditional cultural values in youth (Knight et al. 2016). Research has also demonstrated that family cohesion (positive affect within the family) was positively associated with adolescents' endorsement of familism values (duty and obligation toward family members, which is a related yet distinct traditional cultural value among Latino families) in a sample of U.S. Latina/o youth (Kapke et al. 2016; Lorenzo-Blanco et al. 2013). There is also evidence that Latina/o parents' practices aimed at fostering traditional cultural values (e.g., celebrating traditional holidays) are related to familism values among U.S. Mexican adolescents (Umaña-Taylor et al. 2009). The current study aims to extend the current literature by examining the mediating role of collectivism values in the associations between maternal involvement and subsequent prosocial behaviors over time.

### Collectivism Values and Prosocial Behaviors

Cultural orientations may shape adolescents' interactions with others, and ultimately impact their prosocial behaviors. Youth who tend to endorse collectivism may be more likely to prioritize the needs and wants of their social groups over

their own needs (Triandis 1989), ultimately contributing to higher rates of prosocial behaviors. Previous research has demonstrated that U.S. Latina/o youth tend to display high levels of cooperative behaviors and also specific forms of prosocial behaviors (see Calderón-Tena et al. 2011; Knight et al. 1993). This may be in part because of adolescents' cultural orientation. Because emotional, dire, and compliant prosocial behaviors are helping behaviors commonly found in the home and toward known others (see Knight and Carlo 2012), it may be that these forms of helping are particularly associated with a collective cultural orientation.

Previous research has demonstrated links between collectivism and prosocial behaviors, although the research is limited. In one study with college students, a collectivist orientation was associated with a volunteer identity and a desire to help one's community (Finkelstein 2010). One study with U.S. Mexican adolescents demonstrated that endorsement of familism values (aligned with collectivist values as this value also requires prioritizing the group over the self) was positively associated with multiple forms of prosocial behaviors (Armenta et al. 2010). Familism values were also positively associated with multiple forms of prosocial behaviors in a sample of U.S. Mexican youth (Knight et al. 2015). In general, research on cultural orientations (including collectivism) and prosocial behaviors is limited, especially longitudinal studies and studies of recently immigrated youth. Therefore, the current study will address gaps in the current literature by examining the longitudinal associations among maternal involvement, collectivism orientations, and prosocial behaviors among recently immigrated U.S. Latina/o adolescents.

### Reverse-Causal Model

Scholars have called for research examining the bidirectional effects of parenting and adolescents' behavioral outcomes (Bell 1968; Maccoby and Martin 1983). While parents act as primary socializers of youth development (see Darling and Steinberg 1993), adolescents may also socialize parents' behaviors and family relationships. The control systems theory posits that children's behaviors elicit responses from parents, ultimately suggesting that children can influence their parents' behaviors (Bell 1977). Carlo and Randall (2001) proposed that youth who tend to engage in high levels of prosocial behaviors may experience positive social feedback, such as rewards from parents, which may further promote sociocognitive and socioemotive traits that promote prosocial behaviors (see also Eisenberg 1986). Additionally, recent immigrant U.S. Latina/o youth are experiencing socialization and acculturation experiences from multiple sources, including peers and the broader community, and therefore may act as primary socializers for their parents (Santisteban et al. 2002).

There is evidence for the bidirectional effects of parenting behaviors and adolescents' prosocial behaviors. Carlo and colleagues (2011) demonstrated that engagement in prosocial behaviors was positively associated with maternal warmth across time. Another study demonstrated that adolescents' prosocial behaviors positively predicted authoritative parenting 1 year later (Padilla-Walker et al. 2012), providing evidence for the predictive effects of adolescents' behaviors on future parenting behaviors. Therefore, another goal of the current study was to examine a reverse-causal model such that adolescents' prosocial behaviors may predict greater maternal involvement over time.

Additionally, cultural values may act as a mediator in the relations between adolescents' prosocial behaviors and later maternal involvement. Adolescents who engage in prosocial behaviors, particularly those that are common within the home as assessed in the current study (i.e., emotional, compliant, and dire), may contribute to coherence within the family, which may foster greater endorsement of collectivist values. Additionally, collectivism may in turn promote maternal involvement because adolescents who endorse values of collectivism may engage positively with the family in order to promote harmonious relationships, which may foster a positive parent–adolescent relationship and promote maternal involvement over time. Research has demonstrated that values can be transmitted from adolescents to parents (Pinquart and Silbereisen 2004). However, research has not examined cultural values as a mediator in the links between adolescents' behaviors and parenting behaviors across time. This limitation of the current literature was addressed in the present study.

### Gender Moderation

Prior research has also consistently demonstrated gender differences in prosocial behaviors among adolescents. Specifically, in previous work examining prosocial behaviors, girls were more likely to report engaging in selfless and emotional forms of prosocial behaviors, while boys reported engaging in more public forms of prosocial behaviors (Carlo et al. 2003). Additionally, research suggests that girls might perceive themselves as more relationally oriented than men, which may ultimately influence perceptions of social relationships and links between social relationships and behavioral outcomes (see Kashima et al. 1995), suggesting that the associations between family processes, cultural values, and prosocial behaviors might differ depending on adolescents' gender. Specifically, it may be that maternal involvement more strongly predicts collectivism for girls than boys because girls may be more attuned to mothers' involvement than boys. Therefore, the current study examined potential gender moderation effects.

## Current Study

The goal of the current study was to examine the associations among maternal involvement, collectivism, and prosocial behaviors across time in a sample of recently immigrated U.S. Latina/o adolescents. We hypothesized that maternal involvement at Time 1 would be positively associated with collectivism values at Time 3, which would positively predict prosocial behaviors at Time 5. Additionally, we examined a reverse-causal model in order to examine whether earlier adolescent prosocial behaviors predict later cultural orientations and maternal involvement in order to better understand the direction of effects. It may be that adolescents' prosocial behaviors at Time 1 positively predict collectivism at Time 3. Collectivism, in turn, may positively predict maternal involvement at Time 5. Additionally, multigroup analyses were examined to assess potential gender differences in the associations.

## Methods

### Participants

The present study was conducted using data from a longitudinal project entitled *Construyendo Oportunidades Para los Adolescentes Latinos (COPAL)*; Schwartz et al. 2015a, b). Participants were 302 adolescents, 53.3% male, and the average age was 14.51 years old (range = 13–17). Data were collected from adolescents in two US cities: Los Angeles ( $n = 150$ ) and Miami ( $n = 152$ ). Participants from Los Angeles were predominantly from Mexico (70%), El Salvador (9%), Guatemala (6%), and other countries (15%), and the participants from Miami were predominantly from Cuba (61%), Dominican Republic (8%), Nicaragua (7%), Honduras (6%), Colombia (6%), and other countries (12%). Regarding the immigration of parents and children, 83% of Miami families and 67% of Los Angeles families arrived in the U.S. together. Adolescents had lived in the U.S. for 1–5 years (with a mean of 2–3 years). Socioeconomic status was also related to participant location, such that participants in Miami reported significantly higher incomes (as reported by parents) than participants in Los Angeles,  $F(191.37) = 9.90$ ,  $p = .002$ .

The primary caregiver (75% mothers) also reported on their education (Los Angeles sample mean = 8.84 years,  $SD = 4.72$  years; Miami sample mean = 11.23 years,  $SD = 3.67$  years). Seventy-one percent of adolescents were from two-parent homes, while 29% were from single-parent homes. Additionally, caregivers reported on the family income. For the Miami sample, 93% of participants reported an income of \$44,999 or less. For the Los Angeles sample, approximately 92% of participants reported an income of

\$29,999 or less. These two cities were selected because they are both home to large numbers of Latina/o adolescents. Per inclusion criteria, each target school was at least 75% Latina/o. We targeted densely Latina/o areas because many recent Latina/o immigrants tend to settle in ethnic enclaves (Portes and Rumbaut 2006). The study received IRB approval from the University of Miami and the University of Southern California.

### Procedures

The COPAL sample consists of 302 recently immigrated parent-adolescent dyads. Families were assessed every 6 months for 3 years. For the current study, we used data from Time 1, Time 3, and Time 5. Because data was collected every 6 months, we chose these timepoints in order to estimate effects across 2 years (1 year lag between each timepoint). Using the COPAL data permits us to model longitudinal effects among maternal involvement, collectivism, and prosocial behavior. Given the constructs of interest, we utilized only adolescent-reported data.

Adolescents were recruited from 13 schools in Los Angeles county and 10 schools in Miami-Dade County. Predominantly Latina/o schools were targeted. Participants were recruited from English for Speakers of Other Languages (ESOL) and basic English classes. Research assistants described the study and asked interested adolescents to provide their parent or guardian's phone number. Research assistants then called the parents or guardians directly to explain the study.

All Latina/o students were eligible to participate in the study if they had lived in the U.S. for 5 years or less and were in the ninth grade. Families were included in the study only if the parent and adolescent could both participate. Initially, 632 families were referred, and 435 were reached by telephone. There were 302 families assessed at baseline (93 families had work/schedule conflicts; 18 missed 3 appointments; and 22 declined to participate). Data collection occurred at the schools, at the research centers, or at other locations convenient to families. Interviews took approximately 2.5 h. Incentives were provided to parents (Time 1 = \$40, Time 3 = \$50, and Time 5 = \$60). Additionally, the youth received a movie ticket at each timepoint. Parents and adolescents were assessed in separate rooms. Surveys were administered via audio computer-assisted software. Participants indicated their responses on the computer. A button was provided for each response, and no prior computer experience was necessary. The assessment battery was available in both English and Spanish. Each participant was asked to select her/his preferred language upon starting the assessment battery. At baseline, 98% of parents, and 84% of adolescents, completed measures in Spanish at baseline. However, in an experimental



study, Schwartz and colleagues (2014) found that many of the coefficient alphas were identical across participants randomly assigned to complete assessments in English vs. Spanish.

## Measures

### *Maternal involvement*

At Time 1, Time 3, and Time 5, participants completed a measure of their mothers' involvement (family involvement subscale of the Parenting Practices Scale; Gorman-Smith, Tolan, Zelli, and Huesmann 1996). The family involvement subscale assessed adolescents' perceptions of communication and positive interactions with his/her mother (13 items; Time 1  $\alpha = .86$ ; Time 3  $\alpha = .90$ ; Time 5  $\alpha = .92$ ). Participants rated each item on a scale from 0 = *Never* to 4 = *Always*. A sample item is, "How often do you and your mother do things together at home?"

### *Collectivism*

At Time 1 and Time 3, adolescents completed a measure of their orientation toward collectivism values (Singelis et al. 1995). Participants rated each item on a scale from 0 = *Strongly disagree* to 4 = *Strongly agree*. The collectivism scale (8 items; Time 1  $\alpha = .79$ ; Time 3  $\alpha = .87$ ) consists of items assessing horizontal (viewing the self as part of a collective with members of equal social standing) and vertical collectivism (viewing the self as part of a collective with respect for individuals of greater authority within the group; see Singelis et al. 1995). Sample items include, "family members should stick together no matter what sacrifices are required." "I feel good when I work together with others."

### *Prosocial behaviors*

At Time 1, Time 3, and Time 5, adolescents completed a measure of their tendency to engage in three forms of prosocial behaviors: emotional, dire, and compliant prosocial behaviors (assessed using an adapted version of the Prosocial Tendencies Measure-Revised; Carlo et al. 2003). Emotional prosocial behaviors include helping behaviors in emotionally evocative situations (e.g., "I feel better when I am able to comfort someone who is very upset"). Dire prosocial behaviors include helping in emergency situations (e.g., "I like to help people who are in a real crisis or need"). Compliant prosocial behaviors include helping others when asked (e.g., "When people ask me to help them, I help them as quickly as I can"). Participants rated each item on a scale from 0 = *Does not describe me at all* to 4 = *Describes me greatly*. The three scales were summed to create a

composite score of prosocial behaviors (9 items; Time 1  $\alpha = .86$ ; Time 3  $\alpha = .86$ ; Time 5  $\alpha = .90$ ).

## Results

### Preliminary Analyses

We conducted preliminary t-tests to examine differences in the main variables for participants who remained in the study and those who left the study by Time 5 ( $n$  at Time 1 = 302;  $n$  at Time 5 = 248). There were no differences on any variables. We also examined mean level differences across the two sites on all key variables. The results demonstrated that the Miami sample (mean = 3.21, SD = .48) scored significantly higher in collectivism at Time 1 than the Los Angeles sample [mean = 2.90, SD = .49;  $t(299.62) = 5.48, p < .001$ ]. Additionally, the Miami sample (mean = 2.52, SD = .82) scored significantly higher than the Los Angeles sample (mean = 2.31, SD = .85) on prosocial behaviors at Time 1 [ $t(299.30) = 2.15, p = .03$ ]. Next, we examined the correlations among main study variables (see Table 1). We also examined the correlation among child and parent reports of involvement. The parent report measure of involvement is not correlated with youth reports of cultural values or prosocial behaviors, and is only moderately correlated with adolescents' reports of maternal involvement. This is consistent with prior work which has demonstrated that adolescents and parents may perceive parenting behaviors differently (e.g., Korelitz and Garber 2016; Paulson and Sputa 1996). Therefore, we utilized child reports of involvement in subsequent analyses. The results demonstrated correlations among measures in the expected directions.

### Path Analyses

#### *Maternal socialization model*

Path analyses were conducted using maximum likelihood estimation in Mplus, version 7 (Muthén and Muthén 2010) to examine the direct and indirect associations among maternal involvement, collectivism values, and adolescents' prosocial behaviors. Missing data was handled using maximum likelihood estimation. Two models were examined. First, we examined the maternal socialization model. The model included the direct (i.e., unmediated) relations between maternal involvement at Time 1, collectivism at Time 3, and prosocial behaviors at Time 5. The direct effect from maternal involvement at Time 1 to adolescents' prosocial behaviors at Time 5 was also included. We also statistically controlled for collectivism values at Time 1, and prosocial behaviors at Time 3. Model fit is considered good

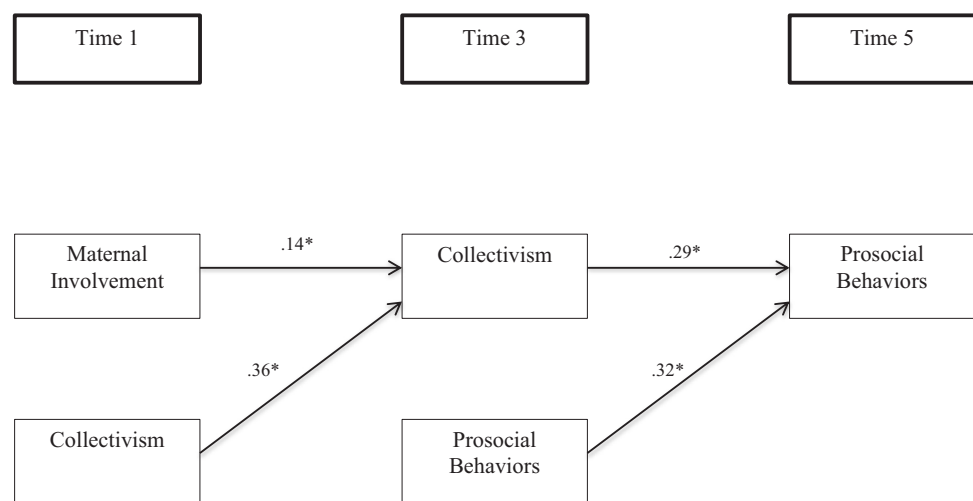
**Table 1** Descriptive statistics and bivariate correlations among main study variables

	1.	2.	3.	4.	5.	6.	7.	8.
1. Maternal involvement T1								
2. Maternal involvement T3	.55*							
3. Maternal involvement T5	.33*	.63*						
4. Collectivism T1	.33*	.30*	.22*					
5. Collectivism T3	.28*	.37*	.38*	.41*				
6. Prosocial behaviors T1	.28*	.21*	.19*	.48*	.30*			
7. Prosocial behaviors T3	.10	.26*	.24*	.27*	.32*	.47*		
8. Prosocial behaviors T5	.02	.18*	.32*	.24*	.40*	.39*	.41*	
Mean (SD)	2.75 (.65)	2.67 (.73)	2.80 (.76)	3.06 (.51)	3.00 (.65)	7.25 (2.53)	7.00 (2.49)	7.42 (2.71)

*T1* Time 1, *T3* Time 3, *T5* Time 5

\* $p < .05$

**Fig. 1** Associations between maternal involvement at Time 1, collectivism orientation at Time 3, and prosocial behaviors at Time 5. The path from maternal involvement at Time 1 to prosocial behaviors at Time 5 was included but was not significant. Fit for the overall model was good ( $\chi^2 = 8.48$ ,  $df = 4$ ,  $p = .08$ ; CFI = .98; RMSEA = .06). Standardized coefficients are presented. \* indicates statistical significance at  $p < .05$

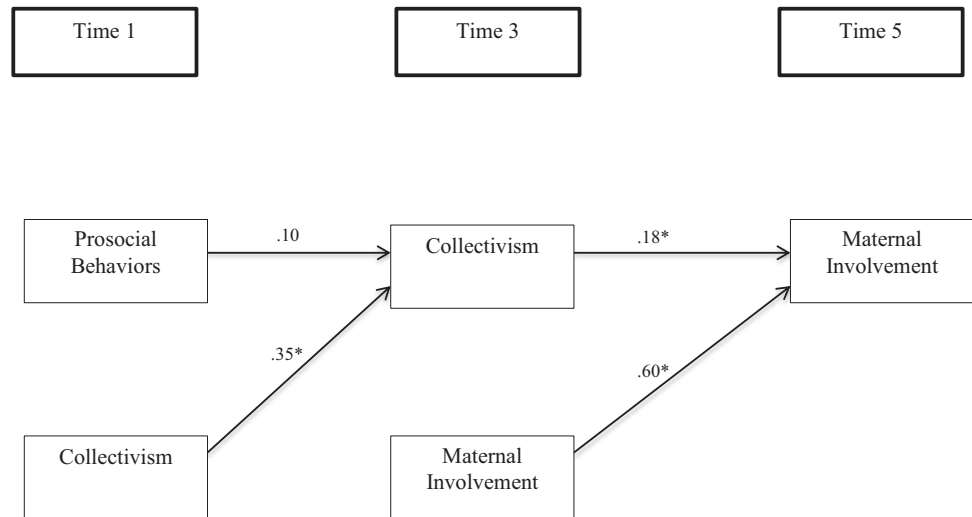


in Structural Equation Modeling (SEM) if the Comparative Fit Index (CFI) is .95 or greater (fit is adequate at .90 or greater), and the Root Mean Square Error of Approximation (RMSEA) is less than or equal to .06 (fit is adequate at .08 or less; Byrne 2010; Hu and Bentler 1999). Fit for the overall maternal socialization model (see Fig. 1) was good ( $\chi^2 = 1.01$ ,  $df = 1$ ,  $p = .29$ ; CFI = 1.00; RMSEA = .02; SRMR = .01). The results demonstrated that adolescent-reported maternal involvement at Time 1 was positively associated with adolescent reports of their own collectivism values at Time 3, which were positively associated with adolescent reports of their own prosocial behaviors at Time 5. Collectivism values at Time 1 predicted collectivism at Time 3, and prosocial behaviors at Time 3 predicted prosocial behaviors at Time 5.

Multi-group analyses were then conducted to examine gender differences in the path model. Chi-square difference tests were conducted to examine significant change in the chi-square statistic for the constrained model compared to

the unconstrained model. Model fit was also examined for the constrained and unconstrained models. The unconstrained model (CFI = 1.00; RMSEA = .000; SRMR = .01;  $\chi^2(2) = 1.22$ ,  $p = .54$ ) and the constrained model (CFI = 1.00; RMSEA = .01; SRMR = .06;  $\chi^2(7) = 7.08$ ,  $p = .42$ ) were not significantly different ( $\Delta\chi^2(5) = 5.86$ ,  $p = .32$ ). Therefore, the results are reported for the whole sample. Because of the mean level differences in collectivism and prosocial behaviors at Time 1 across the samples, we also examined moderation by site. The unconstrained model (CFI = .99; RMSEA = .06; SRMR = .02;  $\chi^2(2) = 2.94$ ,  $p = .23$ ) and the constrained model (CFI = 1.00; RMSEA = .000; SRMR = .04;  $\chi^2(7) = 6.85$ ,  $p = .44$ ) were not significantly different ( $\Delta\chi^2(5) = 3.91$ ,  $p = .56$ ). Mediation tests using MLR were also conducted. The results demonstrated that the indirect effect from maternal involvement to prosocial behaviors through collectivism values was significant (indirect effect = .23, SE = .28,  $p = .04$ ).

**Fig. 2** Associations between prosocial behaviors at Time 1, collectivism orientation at Time 3, and maternal involvement at Time 5. The path from prosocial behaviors at Time 1 to maternal involvement at Time 5 was included but was not significant. Fit for the overall model was adequate ( $\chi^2 = 14.27$ ,  $df = 4$ ,  $p = .01$ ; CFI = .96; RMSEA = .09). Standardized coefficients are presented. \* indicates statistical significance at  $p < .05$



*Reverse-causal model*

Second, we examined the reverse-causal model; adolescents’ prosocial behaviors at Time 1 were set to predict their own reports of collectivism values at Time 3, which were set to predict their reports of maternal involvement at Time 5. The direct effect from adolescents’ prosocial behaviors at Time 1 to maternal involvement at Time 5 was also included (see Fig. 2). Collectivism values at Time 1, and maternal involvement at Time 3 were included as statistical controls. The fit for the reverse-causal model was good ( $\chi^2 = .33$ ,  $df = 1$ ,  $p = .56$ ; CFI = 1.00; RMSEA = .000; SRMR = .01). The results demonstrated that adolescents’ prosocial behaviors at Time 1 were positively associated with collectivism values at Time 3. Collectivism values at Time 3 were positively associated with maternal involvement at Time 5. Additionally, collectivism at Time 1 positively predicted collectivism at Time 3, and maternal involvement at Time 3 was positively associated with maternal involvement at Time 5.

Multi-group analyses were then conducted to examine gender differences in the path model. The unconstrained model (CFI = 1.00; RMSEA = .000; SRMR = .003  $\chi^2(2) = .15$ ,  $p = .93$ ) and the constrained model (CFI = 1.00; RMSEA = .000; SRMR = .07;  $\chi^2(7) = 4.41$ ,  $p = .73$ ) were not significantly different ( $\Delta\chi^2(5) = 4.26$ ,  $p = .51$ ). Therefore, the results are reported for the whole sample. Moderation by site was also examined. The constrained (CFI = .94; RMSEA = .10; SRMR = .05;  $\chi^2(7) = 18.08$ ,  $p = .01$ ) and unconstrained model (CFI = .97; RMSEA = .13; SRMR = .03;  $\chi^2(2) = 7.44$ ,  $p = .02$ ) were not significantly different ( $\Delta\chi^2(5) = 10.64$ ,  $p = .06$ ). Mediation tests using MLR were also conducted. However, the indirect effect from adolescents’ prosocial behaviors to maternal involvement via collectivism values was not significant (indirect effect = .01, SE = .01,  $p = .11$ ).

**Discussion**

Prosocial behaviors (i.e., actions that benefit others) are important markers of healthy social functioning, and understanding the factors that predict such outcomes among recent immigrant Latino adolescents is important. However, research that focuses on positive youth outcomes in this population is scarce. Based on culturally-based socialization models of value-based behaviors (see Knight and Carlo 2012), the present study examined the role of collectivism values in the links between maternal involvement and adolescents’ prosocial behaviors in a sample of recent immigrant Latina/o adolescents. Additionally, reverse causal effects were examined, such that adolescents’ prosocial behaviors may predict collectivism values, and ultimately greater maternal involvement. Overall, there was relatively greater support for effects of earlier maternal involvement on adolescents’ subsequent collectivism values and prosocial behaviors than the reverse causal model. Moreover, the findings were robust even after accounting for previous levels of prosocial behaviors and collectivism values. To our knowledge, this is the first longitudinal study to examine the interplay among maternal involvement and cultural orientation in predicting prosocial behaviors of recent immigrant Latina/o adolescents.

As hypothesized, adolescents’ reports of maternal involvement was positively associated with adolescents’ reports of their own collectivism values 1 year later, controlling for previous levels of adolescents’ reports of their own collectivism values. Adolescents’ perceptions of maternal involvement may ultimately foster a positive affective environment within the family that is also perceived by the adolescent. This finding suggests that U.S. Latina/o parents who are perceived by the adolescent as being deeply involved in their adolescents’ lives, ultimately foster collectivist values in their adolescents. The findings



yield evidence that recent immigrant U.S. Latino families may tend to strongly endorse collectivism values, which suggests that such values may be an important socialization goal among U.S. Latina/o parents (Harwood et al. 2002). While research on maternal involvement and collectivism values is scarce, the present findings are consistent with previous findings linking family cohesion (positive affect within the family) and collectivism values in African American adolescents (Harris and Molock 2000). These findings are also consistent with previous research suggesting that positive parenting practices are associated with adolescents' endorsement of traditional cultural values (Calderón-Tena et al. 2011). Therefore, in general, the present findings demonstrate support for culturally-based socialization models of value-based behaviors (Knight and Carlo 2012).

Contrary to our hypotheses, there was no significant, direct link between maternal involvement at Time 1 and prosocial behaviors at Time 5. Previous research has demonstrated direct links between parenting behaviors and prosocial behaviors (Calderón-Tena et al. 2011; Kerr et al. 2003); however, these previous studies were not conducted with recent immigrant samples and were also cross-sectional. Additionally, the indirect effect from maternal involvement to prosocial behaviors was significant, suggesting that over time, mothers' behaviors may affect such behaviors through the promotion of traditional cultural values. Given the mixed findings and distinct study characteristics, further research is needed to better understand these relations.

As hypothesized, collectivism values at Time 3 were positively associated with prosocial behaviors at Time 5, controlling for previous levels of prosocial behaviors. These results support the notion that collectivism, which emphasizes prioritizing the needs of the larger social group above an individual's own needs (Triandis 1989), may contribute to an orientation toward the needs of others and ultimately a tendency to engage in prosocial behaviors among adolescents. Although previous research has demonstrated a similar link between traditional U.S. Latina/o cultural values, such as familism values, and prosocial behaviors (Armenta et al. 2010; Finkelstein 2010; Knight et al. 2015), the present findings are the first to show longitudinal links between collectivism values and prosocial behaviors in U.S. Latina/o youth. Taken together, the present and prior findings suggest that there are multiple cultural values associated with prosocial behaviors in U.S. Latina/o adolescents. Future research could be conducted to identify additional cultural values that may be linked to prosocial development in ethnic minority populations.

Interestingly, the results did not support longitudinal associations between earlier adolescents' prosocial

behaviors and subsequent maternal involvement. These findings suggest relatively greater influence of parenting on subsequent prosocial outcomes in this population. Prior evidence of bidirectional links between parenting and prosocial behaviors in adolescents is weak and mixed (see Carlo 2014; Carlo and Conejo (2017)). Such findings seem to vary as a function of specific type of prosocial behavior (e.g., target of helping), mothers vs. fathers, and age period (more evidence in young children relative to adolescents; see e.g., Padilla-Walker et al. 2012). This overall pattern of relations highlights the complexities of understanding the interplay of parenting and youth effects and necessitates further research.

However, it should be noted that earlier reports of adolescents' collectivism values positively predicted change in adolescents' reports of maternal involvement 1 year later. Previous research has demonstrated transmission of values from adolescents' to parents (Pinquart and Silbereisen 2004), but the current study extends this research by suggesting that adolescents' cultural orientations may actually shape parents' behaviors. This finding further demonstrates the importance of examining parent-adolescent relationships as bidirectional, as each family member may act as a socialization agent of the other.

Although the present study extends our understanding of family processes, cultural values, and prosocial behaviors in recently immigrated U.S. Latina/o youth, a number of limitations should be considered. All measures were adolescents' self-report, which raises concerns about shared method variance and self-presentation biases. Future researchers should utilize multiple reporters, behavioral tasks, and independent behavioral observations to account for these potential biases. The current study also examines maternal involvement, but future research should also consider the role of additional socialization agents (e.g., fathers). Additionally, although we collected data from Latina/os residing in two U.S. cities, the findings may not generalize to Latina/os residing in rural areas, to Latina/os from other regions of the U.S., or to specific Latina/o subgroups not well represented (e.g., Puerto Ricans, Dominicans) in the sample. Future research should examine such processes within specific Latina/o ethnic groups to better differentiate cultural processes within specific Latina/o populations. Further, all participants were relatively recent immigrants to the U.S., and Latina/o adolescents who have been living in the U.S. for longer periods may have different experiences and cultural orientations. While past researchers have cautioned against using broad cultural orientations to classify groups (Harwood et al. 2002), the current study examines within group variation in endorsements of collectivism values in order to better understand the links among family processes and youth cultural and behavioral development. Future research should examine these

processes in diverse samples and contexts of Latina/o youth in the U.S.

## Conclusions

The present study provides longitudinal evidence on the importance of adolescent reported family processes and cultural orientations to adolescents' prosocial behaviors in a sample of recently immigrated U.S. Latina/o adolescents. These findings suggest that fostering positive family relationships and supporting enculturation processes are both important in order to help recently immigrated U.S. Latina/o adolescents develop into cooperative and helpful individuals. The findings yield support for culturally-based socialization models of values-based behaviors in Latina/o youth. Moreover, given the sparse research that focuses on positive youth outcomes in recent immigrant Latina/o youth, these findings contribute to the field of ethnic minority adolescent development by highlighting the important role of collectivism values in explaining the links between maternal involvement and positive social adjustment in a marginalized and vulnerable population. The discussion highlights the importance of understanding the positive adjustment of U.S. immigrant Latina/o youth and families in order to avoid deficit approaches of ethnic minority youth development and develop a holistic understanding of immigrant ethnic minority youth.

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**Authors' Contributions** A. N. D. conceived the study, conducted the analyses, and was primarily responsible for writing the manuscript. G. C. helped with study development and assisted with writing and revising the manuscript. C. S. assisted with manuscript development and provided feedback throughout the process. S. J. S. and J. B. U. were the principal investigators on the COPAL project and provided extensive feedback on the data analyses and manuscript drafts. L. B. and J. S. are members of the COPAL research team and provided feedback on the manuscript. All authors read and approved the final manuscript. All authors read and approved the final version of this manuscript.

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**Data Sharing Declaration** This manuscript's data will not be deposited.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no competing interests.

**Ethical Approval** The Institutional Review Board at the University of Miami and the University of Southern California approved the current study.

**Informed Consent** Parents and adolescents provided informed consent prior to data collection.

## References

- Armenta, B. E., Knight, G. P., Carlo, G., & Jacobson, R. P. (2010). The relation between ethnic group attachment and prosocial tendencies: The mediating role of cultural values. *European Journal of Social Psychology, 41*(1), 107–115. <https://doi.org/10.1002/ejsp.742>.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review, 75*, 81–95. <https://doi.org/10.1037/h0025583>.
- Bell, R. Q. (1977). Socialization findings re-examined. In R. Q. Bell & R. V. Harper (Eds.), *Child effects on adults* (pp. 53–84). Hillsdale, NJ: Lawrence Erlbaum.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Ottawa, ON: Routledge Press.
- Calderón-Tena, C. O., Knight, G. P., & Carlo, G. (2011). The socialization of prosocial behavioral tendencies among Mexican American adolescents: The role of familism values. *Cultural Diversity and Ethnic Minority Psychology, 17*(1), 98–106. <https://doi.org/10.1037/a0021925>.
- Cantillon, D. (2006). Community social organization, parents, and peers as mediators of perceived neighborhood block characteristics on delinquent and prosocial activities. *American Journal of Community Psychology, 37*(1-2), 413–413. <https://doi.org/10.1007/s10464-005-9000-9>.
- Carlo, G. (2014). The development and correlates of prosocial moral behaviors. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (2nd ed., pp. 208–234). New York, NY: Psychology Press.
- Carlo, G., & Conejo, L.D. (2017). Traditional and culture-specific parenting of prosociality in U.S. Latino/as. In D. Laible, L. Padilla-Walker & G. Carlo (Eds.), *Oxford handbook of parenting and moral development*. New York: Oxford University Press.
- Carlo, G., Fabes, R. A., Laible, D., & Kupanoff, K. (1999). Early adolescence and prosocial/moral behavior II: The role of social and contextual influences. *The Journal of Early Adolescence, 19* (2), 133–147. <https://doi.org/10.1177/0272431699019002001>.
- Carlo, G., Hausmann, A., Christiansen, S., & Randall, B. A. (2003). Sociocognitive and behavioral correlates of a measure of prosocial tendencies for adolescents. *The Journal of Early Adolescence, 23*(1), 107–134. <https://doi.org/10.1177/0272431602239132>.
- Carlo, G., Mestre, M. V., Samper, P., Tur, A., & Armenta, B. E. (2011). The longitudinal relations among dimensions of parenting styles, sympathy, prosocial moral reasoning, and prosocial behaviors. *International Journal of Behavioral Development, 35* (2), 116–124. <https://doi.org/10.1177/0165025410375921>.

- Carlo, G., & Randall, B. (2001). Are all prosocial behaviors equal? A socioecological developmental conception of prosocial behavior. In F. Columbus (Ed.), *Advances in psychology research* (Vol. II, pp. 151–170). Huntington, NY: Nova Science Publishers.
- Carlo, G., & Randall, B. A. (2002). The development of a measure of prosocial behaviors for late adolescents. *Journal of Youth and Adolescence*, 31(1), 31–44. <https://doi.org/10.1023/A:1014033032440>.
- Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, 113(3), 487–496. <https://doi.org/10.1037/0033-2909.113.3.487>.
- Davis, A. N., Carlo, G., & Knight, G. P. (2015). Perceived maternal parenting styles, cultural values, and prosocial tendencies among Mexican American youth. *The Journal of Genetic Psychology*, 176(4), 235–252. <https://doi.org/10.1080/00221325.2015.1044494>.
- Davis, A. N., Carlo, G., Streit, E., & Crockett, L. J. (2017). Considering economic stress and empathic traits in predicting prosocial behaviors among U.S. Latino adolescents. *Social Development*. <https://doi.org/10.1111/sode.12249>.
- Delgado-Gaitan, C. (1994). Socializing young children in Mexican-American families: An intergenerational perspective. In P. M. Greenfield & R. R. Cocking (Eds.), *Cross-cultural roots of minority child development*. Mahwah, NJ: Erlbaum.
- Domènech Rodríguez, M. M., Donovan, M. R., & Crowley, S. L. (2009). Parenting styles in a cultural context: Observations of “protective parenting” in first-generation Latinos. *Family Process*, 48(2), 195–210. <https://doi.org/10.1111/j.1545-5300.2009.01277.x>.
- Eisenberg, N. (1986). *Altruistic emotion, cognition and behavior*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Finkelstein, M. A. (2010). Individualism/collectivism: Implications for the volunteer process. *Social Behavior and Personality: An International Journal*, 38(4), 445–452. <https://doi.org/10.2224/sbp.2010.38.4.445>.
- Fuller, B., & Garcia Coll, C. (2010). Learning from Latinos: Contexts, families, and child development in motion. *Developmental Psychology*, 46, 559–565. <https://doi.org/10.1037/a0019412>.
- Gonzales, N. A., Knight, G. P., Birman, D., & Sirolli, A. A. (2004). Acculturation and enculturation among Latino youth. In K. I. Maton & C. J. Schellenbach (Eds.), *Investing in children, youth, families, and communities: Strengths-based research and policy* (pp. 285–302). Washington, DC: American Psychological Association.
- Gorman-Smith, D., Tolan, P. H., Zelli, A., & Huesmann, L. R. (1996). The relation of family functioning to violence among inner-city minority youths. *Journal of Family Psychology*, 10, 115–129. <https://doi.org/10.1037/0893-3200.10.2.115>.
- Grau, J. M., Azmitia, M., & Quattlebaum, J. (2009). Latino families: Parenting, relational, and developmental processes. In F. A. Villarruel, G. Carlo, J. M. Grau, M. Azmitia, N. J. Cabrera & T. J. Chahin (Eds.), *Handbook of US Latino psychology: Developmental and community-based perspectives* (pp. 153–170). Thousand Oaks, CA: Sage Publications.
- Hardway, C., & Fuligni, A. J. (2006). Dimensions of family connectedness among adolescents with Mexican, Chinese, and European backgrounds. *Developmental Psychology*, 42, 1246–1258. <https://doi.org/10.1037/0012-1649.42.6.1246>.
- Harris, T. L., & Molock, S. D. (2000). Cultural orientation, family cohesion, and family support in suicide ideation and depression among African American college students. *Suicide and Life-Threatening Behavior*, 30(4), 341–353. <https://doi.org/10.1111/j.1943-278X.2000.tb01100.x>.
- Harwood, R., Leyendecker, B., Carlson, V., Ascencio, M., & Miller, A. (2002). Parenting among Latino families in the U.S. In M. H. Bornstein (ed.) *Handbook of parenting* (vol. 4, pp. 21–46). Hoboken, NJ: Lawrence Erlbaum.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>.
- Janssens, J. M., & Deković, M. (1997). Child rearing, prosocial moral reasoning, and prosocial behaviour. *International Journal of Behavioral Development*, 20(3), 509–527. <https://doi.org/10.1080/016502597385252>.
- Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M., & Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health*, 13(1), 773–783. <https://doi.org/10.1186/1471-2458-13-773>.
- Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement a meta-analysis. *Urban Education*, 42(1), 82–110. <https://doi.org/10.1177/0042085906293818>.
- Kapke, T. L., Grace, M. A., Gerdes, A. C., & Lawton, K. E. (2016). Latino early adolescent mental health: Examining the impact of family functioning, familism, and global self-worth. *Journal of Latina/o Psychology*. <https://doi.org/10.1037/lat0000057>.
- Kashima, Y., Yamaguchi, S., Kim, U., Choi, S. C., Gelfand, M. J., & Yuki, M. (1995). Culture, gender, and self: a perspective from individualism-collectivism research. *Journal of Personality and Social Psychology*, 69(5), 925–937. <https://doi.org/10.1037/0022-3514.69.5.925>.
- Kerr, M. H., Beck, K., Downs Shattuck, T., Kattar, C., & Uriburu, D. (2003). Family involvement, problem and prosocial behavior outcomes of Latino youth. *American Journal of Health Behavior*, 27(1), S55–S65.
- Knight, G. P., Berkel, C., Umaña-Taylor, A. J., Gonzales, N. A., Ettekal, I., Jaconis, M., & Boyd, B. M. (2011). The familial socialization of culturally related values in Mexican American families. *Journal of Marriage and Family*, 73(5), 913–925. <https://doi.org/10.1111/j.1741-3737.2011.00856.x>.
- Knight, G. P., Bernal, M. E., Garza, C. A., & Cota, M. K. (1993a). A social cognitive model of ethnic identity and ethnically-based behaviors. In M. E. Bernal & G. P. Knight (Eds.), *Ethnic identity: Formation and transmission among Hispanics and other minorities* (pp. 213–234). Albany: State University of New York Press.
- Knight, G. P., & Carlo, G. (2012). Prosocial development among Mexican American youth. *Child Development Perspectives*, 6(3), 258–263. <https://doi.org/10.1111/j.1750-8606.2012.00233.x>.
- Knight, G. P., Carlo, G., Basilio, C. D., & Jacobson, R. P. (2015). Familism values, perspective taking, and prosocial moral reasoning: Predicting prosocial tendencies among Mexican American adolescents. *Journal of Research on Adolescence*, 25(4), 717–727. <https://doi.org/10.1111/jora.12164>.
- Knight, G. P., Carlo, G., Mahrer, N. E., & Davis, A. N. (2016). The socialization of culturally related values and prosocial tendencies among Mexican-American Adolescents. *Child Development*, 87(6), 1758–1771. <https://doi.org/10.1111/cdev.12634>.
- Knight, G. P., Cota, M. K., & Bernal, M. E. (1993b). The socialization of cooperative, competitive, and individualistic preferences among Mexican American children: The mediating role of ethnic identity. *Hispanic Journal of Behavioral Sciences*, 15, 291–309. <https://doi.org/10.1177/07399863930153001>.
- Krevans, J., & Gibbs, J. C. (1996). Parents’ use of inductive discipline: Relations to children’s empathy and prosocial behavior. *Child Development*, 67(6), 3263–3277. <https://doi.org/10.1111/j.1467-8624.1996.tb01913.x>.
- Korelitz, K. E., & Garber, J. (2016). Congruence of parents’ and children’s perceptions of parenting: A meta-analysis. *Journal of*

- Youth and Adolescence*, 45(10), 1973–1995. <https://doi.org/10.1007/s10964-016-0524-0>.
- Krogstad, J. M., & Lopez, M. H. (2014). *Hispanic nativity shift: U.S. births drive population growth as immigration stalls*. Washington DC: Pew Research Center.
- Lorenzo-Blanco, E. I., Unger, J. B., Ritt-Olson, A., Soto, D., & Baezconde-Garbanati, L. (2013). A longitudinal analysis of Hispanic youth acculturation and cigarette smoking: The roles of gender, culture, family, and discrimination. *Nicotine & Tobacco Research*, 15(5), 957–968. <https://doi.org/10.1093/ntr/nts204>.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent–child interaction. In E. M. Hetherington (Ed.), *Handbook of child psychology: 4, Socialization, personality, and social development* (pp. 1–101). New York, NY: Wiley.
- Markiewicz, D., Doyle, A. B., & Brendgen, M. (2001). The quality of adolescents' friendships: Associations with mothers' interpersonal relationships, attachments to parents and friends, and prosocial behaviors. *Journal of Adolescence*, 24(4), 429–445. <https://doi.org/10.1006/jado.2001.0374>.
- Muthén, L. K., & Muthén, B. O. (2010). *Mplus user's guide*. Los Angeles, CA: Author.
- Padilla-Walker, L. M. (2014). Parental socialization of prosocial behaviors: A multidimensional approach. In L. M. Padilla-Walker & G. Carlo (Eds.), *Prosocial Development: A Multidimensional Approach*. New York, NY: Oxford University Press.
- Padilla-Walker, L. M., Carlo, G., Christensen, K. J., & Yorgason, J. B. (2012). Bidirectional relations between authoritative parenting and adolescents' prosocial behaviors. *Journal of Research on Adolescence*, 22(3), 400–408. <https://doi.org/10.1111/j.1532-7795.2012.00807.x>.
- Patten, E. (2016). *The Nation's Latino population is defined by it's youth: Nearly half of U.S. born Latinos are younger than 18*. Washington DC: Pew Research Center.
- Paulson, S. E., & Sputa, C. L. (1996). Patterns of parenting during adolescence: Perceptions of adolescents and parents. *Adolescence*, 31(122), 369–382.
- Pinquart, M., & Silbereisen, R. K. (2004). Transmission of values from adolescents to their parents: The role of value content and authoritative parenting. *Adolescence*, 39(153), 83–100.
- Portes, A., & Runbaut, R. G. (2006). *Immigrant America: A portrait* (3rd ed.). Berkeley, CA: University of California Press.
- Raeff, C., Greenfield, P. M., & Quiroz, B. (2000). Conceptualizing interpersonal relationships in the cultural contexts of individualism and collectivism. *New Directions for Child and Adolescent Development*, 2000(87), 59–74. <https://doi.org/10.1002/cd.23220008706>.
- Rodriguez, M. C., & Morrobel, D. (2004). A review of Latino youth development research and a call for an asset orientation. *Hispanic Journal of Behavioral Sciences*, 26(2), 107–127. <https://doi.org/10.1525/aeq.2004.35.1.53>.
- Roos, S., Hodges, E. V., & Salmivalli, C. (2014). Do guilt-and shame-proneness differentially predict prosocial, aggressive, and withdrawn behaviors during early adolescence? *Developmental Psychology*, 50(3), 941–946. <https://doi.org/10.1037/a0033904>.
- Santisteban, D. A., Muir-Malcolm, J. A., Mitrani, V. B., & Szapocznik, J. (2002). Integrating the study of ethnic culture and family psychology intervention science. In H. A. Liddle, D. A. Santisteban, R. F. Levant & J. H. Bray (Eds.), *Family psychology: Science-based interventions* (pp. 331–351). Washington, DC: American Psychological Association.
- Schwartz, S. J., Unger, J. B., Baezconde-Garbanati, L., Benet-Martínez, V., Meca, A., Zamboanga, B. L., & Szapocznik, J. (2015a). Longitudinal trajectories of bicultural identity integration in recently immigrated Hispanic adolescents: Links with mental health and family functioning. *International Journal of Psychology*, 50(6), 440–450. <https://doi.org/10.1002/ijop.12196>.
- Schwartz, S. J., Unger, J. B., Des Rosiers, S. E., Lorenzo-Blanco, E. I., Zamboanga, B. L., Huang, S., et al. (2014). Domains of acculturation and their effects on substance use and sexual behavior in recent Hispanic immigrant adolescents. *Prevention Science*, 15(3), 385–396. <https://doi.org/10.1007/s11121-013-0419-1>.
- Schwartz, S. J., Unger, J. B., Zamboanga, B. L., Córdova, D., Mason, C. A., Huang, S., & Szapocznik, J. (2015). Developmental trajectories of acculturation: Links with family functioning and mental health in recent-immigrant Hispanic adolescents. *Child Development*, 86(3), 726–748. <https://doi.org/10.1111/cdev.12341>.
- Singelis, T. M., Triandis, H. C., Bhawuk, D., & Gelfand, M. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Refinement*, 29, 240–275. <https://doi.org/10.1177/106939719502900302>.
- Smith, E. J. (2006). The strength-based counseling model. *The Counseling Psychologist*, 34, 13–79. <https://doi.org/10.1177/0011000005277018>.
- Super, C. M., & Harkness, S. (2002). Culture structures the environment for development. *Human Development*, 45(4), 270–274. <https://doi.org/10.1159/000064988>.
- Triandis, H. C. (1988). Collectivism and development. In D. Sinha & H. S. R. Kao (Eds.), *Social values and development: Asian perspectives* (pp. 285–303). Thousand Oaks, CA: Sage Publications, Inc.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96(3), 506–520. <https://doi.org/10.1037/0033-295X.96.3.506>.
- Triandis, H. C. (1990). Cross-cultural studies of individualism and collectivism. In J. Berman (Ed.), *Cross-cultural perspectives: Nebraska symposium on motivation 1989*, (41–133). Lincoln, NE: University of Nebraska Press.
- Umaña-Taylor, A. J., Alfaro, E. C., Bámaca, M. Y., & Guimond, A. B. (2009). The central role of familial ethnic socialization in Latino adolescents' cultural orientation. *Journal of Marriage and Family*, 71(1), 46–60. <https://doi.org/10.1111/j.1741-3737.2008.00579.x>.
- Wentzel, K. R. (1993). Does being good make the grade? Social behavior and academic competence in middle school. *Journal of Educational Psychology*, 85(2), 357–364. <https://doi.org/10.1037/0022-0663.85.2.357>.

**Alexandra N. Davis** is an assistant professor in the department of Individual, Family, and Community Education at the University of New Mexico. She received her Ph.D. in Human Environmental Sciences from the University of Missouri. Alexandra is primarily interested in environmental stressors, family relationships, and positive development among ethnic minority adolescents.

**Gustavo Carlo** is a Millsap Professor of Diversity and Multicultural Studies in the department of Human Development and Family Science at the University of Missouri. Dr. Carlo received his Ph.D. in Developmental Psychology from Arizona State University, and his research focuses on prosocial and moral development, as well as positive health and adjustment among Latino families and youth.

**Cara Streit** is an assistant professor in the Department of Individual, Family, and Community Education at the University of New Mexico. She received her Ph.D. in Human Environmental Sciences from the University of Missouri. Cara Streit studies parents and siblings as socialization agents of prosocial behaviors among Latino youth.

**Seth J. Schwartz** is a professor in the department of Public Health Services at the University of Miami. Dr. Schwartz received his Ph.D.



in Psychology at Florida International University, and his research encompasses five general areas: identity, parental involvement, cultural processes, intrinsic motivation, and prevention/promotion.

**Jennifer B. Unger** is a professor of Preventive Medicine at the University of Southern California. Dr. Unger received her Ph.D. from the University of Southern California, and her research interests include psychological, social, and cultural influences on health-risk and health-protective behaviors in diverse populations.

**Lourdes Baezconde-Garbanati** is an associate professor in the Keck School of Medicine at the University of Southern California. Dr. Baezconde-Garbanati received her Ph.D. from the University of

California, Los Angeles, and her work focuses on community-based research and public health initiatives that explore the role of culture in health behaviors, with an emphasis on the elimination of health disparities.

**José Szapocznik** is a professor of Public Health Sciences, Architecture, Psychology, and Educational & Psychological Studies and also Chair Emeritus of the department of Public Health Sciences at the University of Miami. He received his Ph.D. from the University of Miami, and his work focuses on public health; built environment, social processes, behavior (physical activity) and health outcomes (obesity); family-based interventions; Hispanic families; and adolescent drug abuse.