

Familism Values and Adjustment Among Hispanic/Latino Individuals: A Systematic Review and Meta-Analysis

Karina M. Cahill, Kimberly A. Updegraff, José M. Causadias, and Kevin M. Korous
School of Social and Family Dynamics, Arizona State University

Familism is a key cultural value that emphasizes support and attachment, loyalty, honor, and obligation to the family and is hypothesized to be critical in shaping family dynamics and individual adjustment among Hispanic/Latino individuals. To advance the field, we drew from cultural-ecological and developmental models to examine familism as a cultural promotive and risk factor for individual adjustment and family relationship quality. We conducted a systematic review and meta-analysis via a search between 2017 and 2020 and identified 126 records (23% unpublished dissertations) from 73 independent studies (12% longitudinal) in PsycINFO/Proquest, PubMed, and ERIC databases between 1993 and 2019. The multilevel meta-analysis revealed significant effects: educational outcomes, $r = .16$, 95% CI [.08, .23]; family relationships, which included warmth/support, $r = .24$, 95% CI [.19, .29], and conflict/negativity, $r = -.13$, 95% CI [-.23, -.02]; internalizing symptoms, $r = -.12$, 95% CI [-.16, -.09]; and externalizing symptoms, $r = -.10$, 95% CI [-.18, -.03]. We tested conceptually driven moderators and found significant variation by sample (e.g., nativity, developmental period) and context characteristics (i.e., U.S. states characterized as “established” or “new/emerging” for Hispanic/Latino populations). Findings suggest that familism may function more as a promotive and less as a risk factor and that continued attention is needed to the conditions that strengthen or weaken these associations. Although conclusions are limited because most effect sizes were from cross-sectional designs with U.S. Mexican-origin participants and relied on self-reports, findings highlight the complex associations between familism and adjustment/relationship quality and can guide future research.

Public Significance Statement

This systematic review and meta-analysis suggests that higher levels of familism are linked to more positive development and family supports among Hispanic/Latino individuals, including a small to medium size correlation between familism and family warmth/support, and a small association with educational outcomes. Higher familism also was related to less negative outcomes, as reflected in a negative association with internalizing and externalizing symptoms and family conflict/negativity.

Keywords: adjustment, familism values, Hispanic, Latino/Latina, meta-analysis

Supplemental materials: <https://doi.org/10.1037/bul0000336.supp>

Family dynamics are a central concern of developmental sciences in particular and of psychology in general. The family context provides the relational foundation for the development of emotion regulation (Thompson & Meyer, 2007), attachment bonds (Sroufe et al., 2014), and cognitive processing (Bögels & Brechman-Toussaint, 2006), to name a few key developmental domains. At the same time, families are the first and foremost environment of

cultural socialization of children and adolescents, as they are exposed to, and participate in, everyday cultural practices with parents, siblings, and other relatives (Causadias, 2013; García Coll et al., 1996; Rogoff, 2003).

Hispanic/Latino parents are important agents in their children’s socialization around values, beliefs, and norms specific to their culture (Calzada et al., 2012). Cultural transmission through parents’

Karina M. Cahill  <https://orcid.org/0000-0002-3116-9357>

Kimberly A. Updegraff  <https://orcid.org/0000-0003-0603-6066>

José M. Causadias  <https://orcid.org/0000-0001-8249-5497>

Kevin M. Korous  <https://orcid.org/0000-0001-6825-374X>

Kevin M. Korous is now at the Department of Family and Preventive Medicine, University of Utah School of Medicine.

This research was supported by a fellowship to Karina M. Cahill from the Latino Resilience Enterprise (LRE) and by Cowden funds from the School of Social and Family Dynamics at Arizona State University. We

are grateful to Edwin J. Vazquez for his assistance in coding, and to Caroline B. Cahill, Mary Ferris, Hope N. McMaster, and Meagan Niece for their assistance with article preparation. Data and analysis files are available on the Open Science Framework repository (OSF; https://osf.io/mp24v/?view_only=771cdfc54bf94f1ca6e7d4b411768cf).

Correspondence concerning this article should be addressed to Karina M. Cahill or Kimberly A. Updegraff, School of Social and Family Dynamics, Arizona State University, P.O. Box 873701 Tempe, AZ 85287-3701, United States. Email: karina.cahill@asu.edu or kimberly.updegraff@asu.edu

teaching and practices serves the purpose of transmitting traditions, values, and identity, with important implications for health and adaptation (Neblett et al., 2012). These are central concerns for individuals who grow up in ethnic-racial minority and immigrant families in the United States and who have to navigate the challenge of maintaining, abandoning, blending, or transforming their heritage culture to adapt to the demands of mainstream culture (Suárez-Orozco et al., 2018; Umaña-Taylor et al., 2014). In addition to managing their heritage culture and larger society, these individuals often face the task of reconciling their families' values with their own, resulting in cultural dissonance and intergenerational conflict in some families (Portes & Rumbaut, 1996; 2001), and increasing risk for maladaptive developmental outcomes for some individuals (Telzer, 2010). It is in this context that *familism* emerges as a unique example of the complex intersection of family, culture, and adjustment.

Familism has been conceptualized as having both attitudinal and behavioral components (Calzada et al., 2012; Keefe, 1984; Sabogal et al., 1987; Stein et al., 2014). *Attitudinal* familism represents a collection of beliefs that prioritize family above one's own needs, and that value family as a source of attachment and support, and loyalty and obligation (Fuligni et al., 1999; Knight et al., 2010; Lugo Steidel & Contreras, 2003; Sabogal et al., 1987). *Behavioral* familism refers to the actions that reflect these beliefs and values. Among children and adolescents, behavioral aspects of familism may include compliance and obedience to parents, time spent on household tasks or sibling caregiving, or behaviors that reflect positively on the family (e.g., doing well in school; Stein et al., 2014). In adulthood, familistic behaviors may include spending time with family, living in close proximity, and providing financial and material aid to family members in need (Calzada et al., 2012; Keefe, 1984).

The majority of research on this topic, and the focus of this systematic review and meta-analysis, is the *attitudinal* component of familism, referred to hereafter as familism or familism values. Conceptually, familism values are thought to include multiple subdimensions, which are reflected in the subscales of commonly used measures of familism (see Tables 1 and 2). One is the belief that family members should *support* one another and maintain close emotional connections (Vega, 1990), as reflected in subscales like family support and attachment (Knight et al., 2010; Sabogal et al., 1987). A second subdimension is the values or attitudes one holds regarding *obligations* to help family both currently and in the future, such as by caring for younger or elder family members, providing financial assistance or shelter, and prioritizing time with family (Fuligni et al., 1999; Knight et al., 2010; Sabogal et al., 1987). Related to obligations is the notion that the needs of the family come before those of its individual members, such as captured by the subdimension *family subjugation* (Lugo Steidel & Contreras, 2003). Also central to the definition of familism and another subdimension commonly measured is the idea that one's attitudes and behaviors *reflect on the family* (i.e., family as referents, respect for family; Fuligni et al., 1999; Knight et al., 2010; Sabogal et al., 1987) and should bring *honor* to one's family (Lugo Steidel & Contreras, 2003). Of the four subdimensions commonly included in measures of familism (i.e., support/attachment, obligations, referent/honor/respect, and subjugation), at least three are represented among the items and subscales of the most commonly used multidimensional familism scales (Tables 1 and 2). It is notable, however, that it is more common for individual

studies to examine the overall scale score for familism in relation to adjustment, and thus, average across the different subdimensions of the measures.

Most research on familism focuses on individuals of Hispanic or Latino/a origin,¹ the largest ethnic-racial group in the United States today, totaling 60.6 million people or 18.5% of the population (U.S. Census Bureau, 2020), and accounting for more than half of the U.S. population growth in the last decade (Krogstad, 2020). Although Hispanics/Latinos are a heterogeneous and diverse group of individuals, distinguished by different national origins, migration histories, and socioeconomic and educational resources (Noe-Bustamante, 2019; Umaña-Taylor & Fine, 2001), this group of individuals is noted for their *shared* emphasis on strong family-oriented values (Baca Zinn & Wells, 2000; Calzada et al., 2014; Sabogal et al., 1987). Indeed, there is a substantial body of research on the associations between familism and a wide range of indicators of psychological, behavioral, and health outcomes and family relationship dynamics (Perez & Cruess, 2014; Stein et al., 2014; Valdivieso-Mora et al., 2016). Documenting the magnitude of these associations across different domains of adjustment, and particularly the conditions under which familism values are associated with adaptive and maladaptive outcomes, is a critical step in advancing the field.

To date, there has been *one* meta-analysis linking familism to individual maladjustment among Hispanic/Latino individuals living in the United States (Valdivieso-Mora et al., 2016). Findings of this meta-analysis of 39 studies of primarily adolescent samples (82%) published between 2005 and 2015 indicated small effects between familism and internalizing outcomes (i.e., internalizing symptoms, depression, suicide) and nonsignificant effects between familism and externalizing outcomes (i.e., delinquent behaviors, externalizing symptoms) and substance use (i.e., alcohol, marijuana, illicit drugs, tobacco). However, the findings reported by Valdivieso-Mora and colleagues (2016) should be interpreted cautiously because of several limitations, including the focus on a single decade without a clear justification, no assessment of publication bias, overlooking conditional dependencies between effect sizes from the same sample, and the lack of consideration of heterogeneity or potential moderators. Further, the authors did not follow recommended guidelines for systematic reviews and meta-analyses (PRISMA; Moher et al., 2009), including preregistering a protocol, testing for publication bias, and reporting confidence intervals (CIs), all of which are potential threats to the transparency and reproducibility of their meta-analysis (Polanin et al., 2020). In addition to the aforementioned meta-analysis, Stein et al. (2014) conducted a review of literature on attitudinal and behavioral familism in childhood and adolescence, including both qualitative and quantitative research, with a primary goal of situating

¹ We use the term Hispanic and Latino/a together and interchangeably to refer to individuals whose heritage is from Latin America or Spain (Noe-Bustamante et al., 2020; U.S. Census Bureau, 2020). As American Psychological Association (APA) guidelines recommend using the labels that participants identify, we did not use the term *Latinx* because less than 3% of individuals who identify as Hispanic or Latino use this label (Noe-Bustamante et al., 2020). In cases where studies focused on one specific national origin group we referred to this group. When samples were described as including multiple national origin subgroups, we specified the largest two or three groups in describing the study based on the information provided by authors (and included the percentages of each group when available), and then used the pan-ethnic label preferred by the authors.

Table 1
Most Frequently Employed Familism Scales Among Included Studies

Scale name	Authors and Year of publication ^a	N of citations ^b	N of items	Subscales	Reported reliability range ^c	N of included studies ^d
Attitudinal Familism	Sabogal et al. (1987)	2,078	14	Support, Obligations, Referents	.56–.72	14
Familism Scale	Gil and Vega (1996; 2000)	406	7	No subscales	.85	7
The Attitudinal Familism Scale	Lugo Steidel and Contreras (2003)	622	18	Support, Interconnectedness, Honor, Subjugation	.56–.83	14
Adolescents' Values and Expectations Regarding Family Obligations	Fulgini et al. (1999)	1,345	24	Respect for Family, Current Assistance, Future Support	.69–.87	6
The Mexican American Cultural Values Scale	Knight et al. (2010)	445	16	Support, Obligations, Referents	.46–.67	14

^a Scales are listed in chronological order. ^b Citations as of November 12, 2020 (scholar.google.com). ^c Upper and lower bound reliability estimates (i.e., Cronbach's α) reported in the original study, ranges vary across reporters (e.g., parent, child) and subscales, including overall scales. ^d Number of studies included in this systematic review and meta-analysis that employed each scale.

existing research within a developmental framework and identifying future directions of research. Stein et al. (2014) underscored the importance of distinguishing attitudinal and behavioral familism both conceptually and in measurement and called for greater attention to individual and contextual factors and developmental processes that may shape the associations between familism and psychological functioning among Hispanics/Latinos.

The present study builds on and advances this existing work by conducting a comprehensive systematic review and meta-analysis of quantitative research on familism values and adjustment. A systematic review is defined as a reproducible approach to identify relevant research for inclusion in the review using clearly predefined eligibility criteria (Chandler et al., 2020; Moher et al., 2009).

Meta-analysis is an analytic tool that enables researchers to quantify the associations between constructs in a body of research and provide statistical evidence of the magnitude and nature of the associations and sources of heterogeneity (Card, 2012). In this study, we estimated the links between Hispanic/Latino individuals' familism values and adjustment in four domains: educational outcomes (e.g., grade point average, educational expectations and aspirations, attainment); family relationships, including positively valenced (i.e., warmth, support) and negatively valenced relationship qualities (i.e., conflict, negativity); internalizing outcomes (e.g., depression, anxiety, negative mood); and externalizing outcomes (i.e., externalizing and risk-taking behaviors, affiliations with deviant peers). We estimated the magnitude of the associations, the degree,

Table 2
List of Shared Themes/Subscales and Similar Items Across the Most Frequently Employed Familism Scales Among Included Studies

Scale name and authors (Year)	Support/Attachment "Items" (Subscale)	Obligations "Items" (Subscale)	Subjugation "Items" (Subscale)	Referent/Honor/Respect "Items" (Subscale)
Attitudinal Familism; Sabogal et al. (1987)	"One can count on help from his/her relatives to solve most problems." (Support)	"A person should share his/her home with uncles, aunts, or first cousins if they are in need." (Obligations)		"The family should consult close relatives (uncles, aunts) concerning its important decisions." (Referent)
Familism Scale; Gil and Vega (1996); Gil et al. (2000)	"We really do trust and confide in each other."		"Things work out well for us as a family ."	"Family members respect one another."
The Attitudinal Familism Scale; Lugo Steidel and Contreras (2003)	"A person should cherish time spent with his or her relatives." (Interconnectedness)	"A person should help his or her elderly parents in times of need, for example, financially or share a house." (Support)	"A person should be a good person for the sake of his or her family ." (Subjugation)	"Parents and grandparents should be treated with great respect regardless of their differences in views."
Adolescents' Values and Expectations Regarding Family Obligations; Fulgini et al. (1999)	"Do things together with your brothers and sisters" (Current Assistance)	" Help your parents financially in the future." (Future Support)		"Treat your parents with great respect ." (Respect for Family)
The Mexican American Cultural Values Scale; Knight et al. (2010)	"Holidays and celebrations are important because the whole family comes together ." (Support)	"If a relative is having a hard time financially, one should help them out if possible." (Obligations)		"No matter what, children should always treat their parents with respect ." (Referents)

Note. Bold terms highlight similar item wording across scales. Subscale labels are from original measures.

and sources of heterogeneity in these effects or the potential conditions under which familism—adjustment linkages differed in magnitude/direction.

Our study extends prior work in at least three ways. First, informed by the integrative model (García Coll et al., 1996; White et al., 2018) and culturally informed developmental frameworks (Causadias, 2013) that view cultural factors as playing an important role in adaptive and maladaptive behaviors, our meta-analysis examined the links between familism and a range of outcomes, encompassing both positive developmental and relational competencies and adjustment problems and conflictual family relationships. It has been more than two decades since the integrative model was proposed (García Coll et al., 1996), with the goal of moving the field away from deficit-oriented perspectives that dominated research on minority populations, including by focusing almost exclusively on maladjustment outcomes and comparative designs (i.e., ethnic-racial minority vs. European American samples), along with the failure to consider the “diversity and strengths” within minority populations (García Coll et al., 1996, p. 1891). Yet, such deficit-oriented approaches still persist in the field (Perez-Brena et al., 2018). Our examination of multiple domains of well-being and adjustment aims to provide a balanced and nuanced understanding of how Hispanic/Latino individuals’ familism values are related to their adaptation and maladaptation (Causadias, 2013). Second, we take a life span approach and conduct the first meta-analysis of familism that tests whether the associations with individual adjustment/family relationship quality vary in magnitude and/or direction in different developmental periods from early childhood through adulthood. This approach allows us to examine whether familism may be promotive at one stage of development, but be a source of risk in another (Causadias, 2013; White et al., 2018). Third, we offer the first meta-analysis that examines sources of variability in (or moderators of) the associations between familism and adjustment/relationship quality, including social position factors, such as gender and nativity, developmental period, and contextual characteristics in line with the integrative model (García Coll et al., 1996; White et al., 2018) and a bioecological perspective (Bronfenbrenner & Morris, 2007), and informed by decades of research on Hispanic/Latino individuals. By considering sources of variability within Hispanic/Latino populations, we can provide insights regarding for whom, when, and to what degree familism is linked to adaptive and maladaptive outcomes.

Familism and Adjustment/Relationship Quality

Within the integrative model, familism values are conceptualized as a feature of *adaptive culture* or “a social system defined by sets of goals, values, and attitudes that differ from the dominant culture” (García Coll et al., 1996, p. 1896). The integrative model departs from mainstream developmental theories by placing constructs that shape the lives of minority youth and families at the forefront of the model, particularly how social position factors (e.g., ethnicity, gender, social class) have implications for stratification processes (e.g., discrimination, segregation), and in turn, the contexts of minority individuals’ lives (e.g., schools, neighborhoods, communities), which may be promoting and/or inhibiting (García Coll et al., 1996). The model underscores the interplay of these factors (social position, social stratification, and context) as shaping one’s adaptive culture.

A key premise of recent elaborations of the integrative model, and particularly the notion of adaptive culture, is that it can be a potential source of promotion, risk, and protection (Perez-Brena et al., 2018; White et al., 2018). Cultural *promotive* factors are those processes that enhance the likelihood of initiating and maintaining trajectories of positive outcomes related to adaptation and well-being (Gaylord-Harden et al., 2018). In contrast, cultural *risk* factors are those processes that heighten the probability of initiating or maintaining trajectories of psychopathology and negative health (Causadias & Cicchetti, 2018), including behavioral and emotional problems (García Coll et al., 1996). Cultural *protective* factors are those processes that reduce the likelihood of developing maladaptive outcomes in the context of risk (e.g., poverty, community violence or danger); as such, protective factors are typically evidenced by an interaction between a source of risk and familism values leading to a reduction in maladaptive outcomes (Causadias & Cicchetti, 2018; Neblett et al., 2012). We begin by considering the overall associations between familism and each domain of adjustment, highlighting evidence for promotive, risk, and protective effects, and then turn to sources of heterogeneity (i.e., potential moderators).

Educational Outcomes

A substantial body of research, which has not been quantified via meta-analysis, focuses on familism and educational outcomes, theorizing that strong familism values may engender supports (emotional and instrumental) that contribute to one’s educational success and motivate individuals to pursue their education as a way to bring honor to and reflect positively on their family (Gonzales et al., 2009; Polo et al., 2012). Supporting these theoretical notions, there is evidence that youth’s familism values are concurrently associated with higher levels of parent support for schooling among Latino/a students (62% Mexican, 21% Puerto Rican) attending a low-income school (Polo et al., 2012), higher levels of maternal and school support among a sample of primarily Mexican-origin adolescents (78%) from predominantly immigrant families in an emerging Hispanic/Latino area (Cupito et al., 2016), and greater parental encouragement to pursue postsecondary education among Mexican American male college students from primarily working and middle class backgrounds (Ojeda et al., 2011). Further, consistent with the notion that strong familism values may be linked to one’s effort to act in ways that reflect positively on the family, familism is positively (concurrently) associated with high school seniors’ (42% Mexican, 39% Puerto Rican) academic effort and attendance in a low-income school (Esparza & Sánchez, 2008), Dominican adolescents’ greater academic engagement in low-income schools (e.g., completing homework, paying attention in class; Aretakis et al., 2015), and Mexican-origin high school students’ accomplishments, goals, and self-efficacy in math and science (Garriott et al., 2017). Notably, two additional sets of findings came from longitudinal designs. First, Bravo and colleagues (2014) found that stronger endorsement of familism was linked prospectively to Mexican-origin adolescent mothers’ ratings of educational utility (i.e., the degree to which one believes their education will be useful in the future), but not to their expectations regarding their highest level of educational attainment (Bravo et al., 2014). Second, another longitudinal study showed a contrasting effect: familism values (i.e., future family assistance) were

linked prospectively to lower likelihood of college persistence among young adults of primarily Mexican-origin (Witkow et al., 2015).

In line with the idea that adaptive culture may promote some outcomes while being unrelated to or undermining others (White et al., 2018), it is important to note that findings vary by educational outcome under consideration. For example, although Esparza and Sánchez (2008) found positive cross-sectional associations between familism and academic effort and class attendance, there were no direct associations with students' motivation or grades. Studying a diverse group of Hispanic/Latino, Asian, and European American high school students, and controlling for ethnic background, Fuligni et al. (1999) found positive associations between familism values (respect, current assistance) and students' study time and educational expectations and aspirations, but not school achievement, using a cross-sectional design. Overall, within this literature, which largely draws on cross-sectional designs and focuses on adolescence, we anticipated a positive association between familism values and educational outcomes. Moreover, evidence suggests that associations may be stronger for educational outcomes that reflect one's effort and motivation to succeed, such as time spent on homework, attendance, and motivation to do well, as compared with educational outcomes that may be multiply determined, such as indicators of performance and attainment (Benner & Graham, 2013; Kozlowski, 2015; Mahatmya et al., 2016).

Family Relationships—Warmth/Support

Theory suggests positive associations between familism and family relationships based on the premise that familism values may foster harmonious, cohesive, and supportive family relationships (Campos et al., 2008; Stein et al., 2014). Within Hispanic/Latino cultures, it is theorized that the emphasis of familism on close, caring, and united family relationships may, in turn, promote family relationship behaviors and interactions that are consistent with these cultural ideals (Campos et al., 2008; Stein et al., 2014). This premise is supported by cross-sectional research showing that stronger familism values were related to more cooperative coparenting and supportive parenting among Mexican-origin mothers of toddlers (Barnett et al., 2016) and closer mother-child relations among Mexican-origin mothers with preschoolers (Gamble & Modry-Mandell, 2008). Further, Latino/a high school students' stronger familism values were concurrently associated with higher levels of communication with parents (Lac et al., 2011) and family cohesion (Lac et al., 2011; Young, 2016). Beyond the parent-child relationship, Mexican-origin adolescents' familism values predicted increases in sibling closeness over a five-year period capturing the transition to young adulthood (Killoren et al., 2015); such longitudinal findings provide a more stringent test of these associations. Largely, this body of research focuses mostly on Mexican-origin samples and is suggestive of positive (primarily concurrent) associations, informing our expectation of a small to medium overall effect size in this domain.

Family Relationships—Negativity/Conflict

Familism has also been examined in association with negatively valenced family relationships, such as the frequency of conflicts and disagreements, negativity, and rejection. Scholars have theorized that the emphasis of familism values on support, solidarity,

and harmony may reduce conflictual and negative family interactions (Peterson & Bush, 2013; Taylor et al., 2012), particularly within the context of parent-youth relationships where such conflicts may be at odds with family-oriented values of respect for parents (Kuhlberg et al., 2010). Along these lines, there is some evidence that stronger familism values are associated concurrently with lower levels of parent-adolescent conflict among a diverse sample of Latina girls (Puerto Rican, Dominican, Mexican, Colombian) including suicide attempters and nonattempters (Kuhlberg et al., 2010), and in a community-based sample of Latino/a adolescents (Smokowski et al., 2010). Further, among Latino/a adults of diverse national origins (34% Mexican, 23% Cuban, 19% Puerto Rican), familism was negatively related to perceived family conflict using a cross-sectional design (Bostean, 2012). With regard to sibling relationships, Mexican American adolescents' and young adults' endorsement of familism was related to less sibling negativity and conflict concurrently (Updegraff et al., 2005) but not longitudinally (Killoren et al., 2014). And, using a daily diary design to examine the context of caring for an elderly family member, Mexican American adult caregivers' stronger familism values were associated with more frequent daily-reported caregiver conflicts (Koerner & Shirai, 2012), possibly because individuals with strong family-oriented values may be more sensitive to conflicts over their caregiving obligations. With primarily cross-sectional data and samples of either adolescents or adults, these findings are illustrative of the potential variability in the associations between familism and family relationship negativity, and thus, meta-analysis provides a tool to quantify these effects.

Internalizing Symptoms

Turning to indicators of adjustment problems, we examined the links between familism and internalizing symptoms, defined as emotional indicators of distress, such as depressive symptoms, anxiety, withdrawal, somatic symptoms, and negative mood (Cruz et al., 2019; Rescorla et al., 2016; Zahn-Waxler et al., 2008). Familism values may promote emotional and instrumental supports and a sense of belonging, enhancing psychological well-being and reducing the likelihood of internalizing symptoms (Gonzales et al., 2009; Zeiders et al., 2013). As noted, Valdivieso-Mora et al.'s (2016) meta-analysis indicated a small negative effect between familism and internalizing outcomes, but these authors did not include information about study design (i.e., longitudinal, cross-sectional). Research since the publication of this meta-analysis provides some further support for a negative relation between familism and internalizing outcomes. Among predominantly Mexican-origin (78%) adolescents (Cupito et al., 2016), Latino/a young adults (73.7% Mexican American; 22.2% Central and South American; Corona et al., 2017), and college students in Colombia (Zapata Roblyer et al., 2017), stronger familism values were associated (concurrently) with fewer depressive symptoms. However, there also is evidence that familism values may be protective (Cupito et al., 2016) and some research that suggests that familism may increase risk for internalizing symptoms (Arora & Wheeler, 2017; Koerner & Shirai, 2012). For example, Koerner and Shirai (2012) found that familism moderated the links between daily caregiver conflicts and depressive symptoms among Hispanic adults, such that those with higher familism values reported more depressive symptoms on days that they experienced conflict

around caregiving. Other studies found no significant association between familism and internalizing outcomes among Mexican adult women (e.g., De Santis et al., 2016) or depressive symptoms among Mexican origin adolescents using a longitudinal design (Updegraff et al., 2012). In sum, there is some variation across studies in the direction of the associations between familism and internalizing outcomes and one prior systematic review and meta-analysis suggesting a small negative association (Valdivieso-Mora et al., 2016). Thus, we anticipated a small negative effect, but also that our moderating factors may explain some of the heterogeneity in these associations.

Externalizing Outcomes

Theory and evidence suggest a negative association between familism and externalizing outcomes. The latter can be defined as behavioral manifestations of distress, including misconduct, risk-taking, and deviant, aggressive, and antisocial behaviors (Rescorla et al., 2016; Wheeler et al., 2017; Zahn-Waxler et al., 2008), or affiliating with individuals who engage in these behaviors (i.e., deviant peers; Delgado et al., 2011; Roosa et al., 2011). Familism values are theorized to discourage behaviors and actions that would reflect poorly on or bring dishonor to the family and strong family ties are expected to promote adherence to social norms and rules (Germán et al., 2009; Gonzales et al., 2009), reducing the likelihood of engaging in externalizing behaviors. In individual studies, there is evidence of a negative association between familism and concurrent measures of youth aggression, rule-breaking, and misconduct (Marsiglia et al., 2009). Further, stronger evidence comes from longitudinal data showing that Mexican American youth's familism values predicted decreases in risky behaviors five years later in a community-based sample (Updegraff et al., 2012).

The systematic review and meta-analysis by Valdivieso-Mora et al. (2016), in contrast, found no significant association between familism and externalizing outcomes, although they excluded several childhood samples (e.g., Calzada et al., 2014; Donovan, 2011; Gamble & Modry-Mandell, 2008; Long et al., 2015) and some research assessing risky behaviors (Umaña-Taylor et al., 2011; Wheeler et al., 2017) and deviant peer affiliations (Delgado et al., 2011; Lin, 2007; Telzer, 2012). Further, there is also some evidence that familism values may be a protective factor, such that when youth and their parents endorsed high familism, the strength of the association between a contextual risk factor (i.e., exposure to deviant peers) and adolescents' externalizing problems (as reported by teachers) was reduced (Germán et al., 2009). These authors propose that strong familism values may strengthen family bonds and adherence to social norms, potentially reducing the typical risks of (or possibly the influence of) affiliations with deviant peers. In this systematic review and meta-analysis, we included a broader sample of studies and developmental periods as compared with Valdivieso-Mora et al. (2016) and anticipated a significant negative association suggestive that familism may be associated with lower risk for externalizing symptoms.

Sources of Heterogeneity in Familism-Adjustment/ Family Relationship Quality Linkages

Our examination of potential sources of heterogeneity in how familism is related to individual adjustment and family relationships is

theoretically situated within the integrative model (García Coll et al., 1996; White et al., 2018) and a bioecological framework (Bronfenbrenner & Morris, 2007). Sources of moderation included person/sample characteristics conceptualized as individual/social position factors within our theoretical framework (García Coll et al., 1996; White et al., 2018), including gender, nativity, national origin, and developmental period. At the context-level (Bronfenbrenner & Morris, 2007), we aimed to examine moderation by country where the sample was recruited and whether U.S. samples were drawn from an established or new/emerging geographic area (state). We also examined several methodological characteristics to account for heterogeneity between effect sizes and to rule out potential study level confounds (Card, 2012; Lipsey, 2003).

Person (Sample) Characteristics

In the integrative model, individual characteristics are posited to be important factors in the associations between adaptive culture and developmental competencies (García Coll et al., 1996; White et al., 2018). More specifically elaborating on the integrative model and the notion of adaptive culture, White et al. (2018) posited that individual characteristics, including gender, may condition the effects of adaptive culture on developmental outcomes. The idea that the characteristics of the person interact with processes and contexts to shape developmental outcomes is also at the heart of the bioecological model (Bronfenbrenner & Morris, 2007). Thus, collectively, these theoretical frameworks guided our focus on individual characteristics that may modify the associations between familism and adjustment/relationship quality. Although these characteristics are conceptualized and measured at the person-level in individual studies, in a meta-analysis they are sample-level characteristics (e.g., percentage of the sample that is female or born outside the United States).

Gender is one potential moderator of links between familism and developmental outcomes (Stein et al., 2014; White et al., 2018). Scholars have highlighted gender differentiated roles and socialization in Hispanic/Latino families (Cauce & Domenech-Rodríguez, 2002; Schroeder & Bámaca-Colbert, 2019; Umaña-Taylor & Updegraff, 2013). Importantly, there is evidence of *within* group variation such that stronger ties to Hispanic/Latino culture are associated with greater endorsement of traditional gender role attitudes and more differentiated socialization of sons and daughters (Adams et al., 2007; Lam et al., 2012; Updegraff & Umaña-Taylor, 2010; Schroeder et al., 2019). These traditional gender norms emphasize family and caregiving responsibilities for women and provider expectations for men (Cauce & Domenech-Rodríguez, 2002; Lam et al., 2012; Updegraff & Umaña-Taylor, 2010). With regard to the socialization of offspring, qualitative data suggest that Latina girls have more family responsibilities, such as chores and sibling caretaking, and parents are more protective of daughters, restricting and monitoring their activities, whereas boys are granted greater freedom and autonomy to spend time outside of the family (Azmitia & Brown, 2002; Raffaelli & Ontai, 2004; Valenzuela, 1999).

This greater emphasis on family-oriented roles and responsibilities for females may mean that familism is more salient, and thus the association between familism and adjustment/family relationship quality may be stronger for females than for males (e.g., see Cupito et al., 2015; Morcillo et al., 2011; Updegraff et al., 2005).

Along these lines, Lorenzo-Blanco et al. (2012) found that the associations between familism and family cohesion and conflict were stronger for females versus males among Latino/a high school students. In a study of predominantly Mexican origin adolescents (84%), gender moderated the associations between two of the three measures of familistic attitudes and depressive symptoms, such that higher familism was associated with fewer depressive symptoms only for females (Cupito et al., 2015). However, in this same study, familism was unrelated to school grades for both males and females. Looking at externalizing symptoms, Morcillo et al. (2011) found that higher familism was related to Puerto Rican girls' and boys' lower symptoms prior to age 10, but only to girls' reduced symptoms after age 10. Within our systematic review and meta-analysis, we test the role of sample gender composition (percent female) as a moderator of familism–adjustment/relationship quality in each of the four domains, anticipating that associations may be stronger when samples include more female participants, particularly in the family relationships domain.

Nativity/immigrant status is also examined as a person/sample characteristic that may moderate familism–adjustment linkages. Within the integrative model (García Coll et al., 1996) and other conceptualizations (Fulgini, 2001; García Coll & Magnuson, 1997), nativity/immigrant status is highlighted as a “core construct that evokes different processes and engenders different experiences” (García Coll & Magnuson, 1997, p. 94). This is consistent with the immigrant paradox, or the pattern of findings that suggests better outcomes for immigrant versus U.S.-born (or earlier vs. later generation) individuals despite their economic and educational disadvantages. In particular, one potential mechanism hypothesized to underlie the immigrant paradox is the benefits of strong cultural values regarding family and the resulting supports that may provide advantages to immigrant and earlier generation individuals (Gallo et al., 2009; Gonzales et al., 2009). Indeed, Gonzales et al. (2009) tested this mechanism among Mexican-origin families and found that immigrant status (both parents' and adolescents') was linked to lower externalizing symptoms and greater academic engagement *via* strong ties to Mexican culture and endorsement of traditional cultural values (including familism). That is, the benefits of immigrant status for lower engagement in externalizing behaviors and higher academic engagement may be explained by strong ties to Mexican culture and cultural values. In addition, Updegraff et al. (2012) documented distinct patterns of association between multiple indicators of enculturation (i.e., values and behaviors consistent with the ethnic/heritage culture) and youth adjustment for immigrant versus U.S.-born youth, with a stronger and more consistent pattern of associations for immigrant youth. In this systematic review and meta-analysis, we tested nativity/immigrant status of the sample (percent born outside of the United States) as a source of heterogeneity, expecting larger effects between familism values and adjustment/family relationship quality when a greater percentage of the sample is born outside the United States. Similarly, in samples where nativity status is reported for parents/primary caregivers of target participants, parents' nativity status may emerge as a significant moderator in the same direction.

Hispanics/Latinos are diverse in their *national origin*, our third person (sample) characteristic. Few studies have examined differences across national origin in the linkages between familism values and individual adjustment/family relationships. In one exception, Calzada

and colleagues (2014) found similar levels of endorsement of familismo, but different patterns of association between familismo and child adjustment, among Dominican American versus Mexican American children growing up in New York City (NYC). Given differences across groups in immigrant history (i.e., Mexican Americans were more recent arrivals relative to other Latino national origin groups) and citizenship status (i.e., Mexican Americans were more likely to be undocumented) in NYC that are associated with a host of cultural and economic stressors, the contexts in which their mothers' familism values were expressed and had implications may have been distinct (Calzada et al., 2014). Although comparisons of national origin Latino groups suggest that these different groups share strong familism values (Calzada et al., 2014; Sabogal et al., 1987), much less is known about similarities or differences in the *associations* between familism and adjustment/family relationships across national origin groups. Examining the role of national origin as a moderator of familism–adjustment linkages is challenging within individual studies due to the sample size demands to test for moderation. Yet, it is important to know whether the role of familism in adjustment generalizes across national origin groups. Meta-analysis is a tool to quantify these effects across studies and examine national origin as a source of heterogeneity. In this systematic review and meta-analysis, we coded samples for the percentage of Mexican origin, Cuban, and Puerto Rican participants, the three largest Hispanic/Latino national origin groups in the United States (Krogstad & Noe-Bustamante, 2020) and explored moderation by each national origin group but did not advance specific predictions.

Variation in the links between familism and adjustment/relationship quality also may vary by one's *age or developmental period*. To explore this idea, we tested whether familism is differentially related to adjustment/relationship quality at different points in the life span, which may include variation in the magnitude of the association or in the direction, such as being promotive for one developmental period and a source of risk at another (Causadias, 2013; White et al., 2018). Optimally, such developmental questions would be answered through long-term longitudinal designs that examine intraindividual change in familism and adjustment/relationship quality and variability in their associations across the life span. In the absence of such data, meta-analysis provides a tool to aggregate across studies to examine familism–adjustment linkages in different developmental periods, capturing a broader swath of the life span than exists in individual longitudinal studies to date. Toward this end, the mean age of the sample (i.e., average age at time of familism assessment and outcome) was used to categorize effects by developmental period: childhood, early adolescence, late adolescence, or early, middle, or late adulthood.

Familism, as part of one's adaptive culture, is considered to be a developmental process that is shaped by ongoing interaction between one's exposure to the ethnic and mainstream culture and forces of development, such as cognitive, social, and biological changes (White et al., 2018). Because familism is an evolving construct, it may have different implications for adjustment/relationship quality at different points in the life span. Stein et al. (2014) applied a developmental framework to familism and its relations to adjustment in childhood and adolescence. In infancy through childhood, familism values are primarily conceptualized as a cultural influence on parenting goals, behaviors, and practices (Stein et al., 2014), which in turn has implications for children's family relationships and adjustment. Consistent with this framework,

research in early childhood has typically focused on mothers' familism and highlights its protective role for children's adjustment (Gamble & Modry-Mandell, 2008; Morcillo et al., 2011).

The developmental period of adolescence, or the second decade of life, has been the focus of much of the research on familism and youth adjustment/relationship quality (Valdivieso-Mora et al., 2016) because this is theorized to be a period of increasingly complex cultural development as adolescents internalize cultural values and make choices about their behaviors, companions, and future goals that reflect these values (Knight et al., 2009; Stein et al., 2014). The limited research on intraindividual change in familism, indeed, suggests it is a time of change (Knight et al., 2018; Padilla et al., 2016; Updegraff et al., 2018). From early to late adolescence, there is evidence of modest declines in familism (Knight et al., 2018; Padilla et al., 2016). One exception, however, is a study documenting different trajectories of familism as a function of an early transition to parenthood, such that Mexican American adolescent females who transitioned to parenthood prior to the age of 16 reported stable trajectories of familism, whereas those who transitioned to parenthood between 16 and 18 years of age reported the typical declines in familism (Updegraff et al., 2018). Given these developmental changes in familism values as well as changes in adjustment across adolescence, including increases in adjustment problems, declines in educational outcomes, and changes in family relationships (Steinberg, 2001; Zahn-Waxler et al., 2008), we examined potential differences in familism–adjustment/relationship quality within the developmental period of adolescence (i.e., early vs. late) and expected that stronger associations may emerge in early versus late adolescence, as well as in adolescence relative to other developmental periods.

Even less is known about the development of familism values in adulthood and potential variability in the associations between familism and individual adjustment/family relationship quality. Some evidence suggests that as youth transition through late adolescence and into early adulthood, their familism values stabilize (Padilla et al., 2016) and possibly increase in early adulthood (Fuligni & Pederson, 2002; Padilla et al., 2016). Further, Padilla et al. (2016) examined trajectories of familism values among parents of adolescents over an eight-year period of middle adulthood and found that familism values were stable across this period for both immigrant and U.S.-born parents. No other systematic reviews and meta-analyses, to our knowledge, have looked at whether the strength of the associations between familism values and individual adjustment/family relationship quality vary in early, middle, and late adulthood. Research on adult populations, particularly the role of familism values in various health conditions, underscore the significance of familism, but reveal mixed findings regarding the benefits versus costs of familism for individual adjustment/family relationship quality (Perez & Cruess, 2014). A better understanding of how familism values are related to adjustment/relationship quality across the life span is needed, and this systematic review and meta-analysis takes a first step in this direction.

Contextual Factors

The integrative model (García Coll et al., 1996) and conceptual elaborations on the concept of adaptive culture (White et al., 2018) are clear in their emphasis on individual development as situated within larger contexts that may shape the role of adaptive culture, developmental outcomes, and their interrelations, a tenet that is also

central to and informed by the bioecological model (Bronfenbrenner & Morris, 2007). These theoretical perspectives direct attention to the role of context, but not to the specific context characteristics that should be studied, and thus, we drew on the research on familism and theories of segmented assimilation (Portes & Rumbaut, 2001) in selecting contextual factors relevant to links between familism and adjustment/family relationship quality that could be best examined via meta-analysis. These included country where the study was conducted (e.g., United States, Spain, Latin America) and U.S. destination, classified as an established or emerging/new state for Hispanic/Latino populations.

The majority of research on familism has taken place in the United States, with a small number of studies examining familism in other countries, including Spain, Colombia, and Mexico, or comparing across two countries (Hernández et al., 2010; Ibanez, 2002; Losada et al., 2006). It is possible that the construct of familism and the strength of its association with adjustment/family relationship quality differs across these broad contexts (e.g., Ibanez, 2002; Losada et al., 2006). Within the United States, familism values may be more salient because individuals are navigating the distinct and sometimes competing values of their heritage and U.S. mainstream culture, and one's conscious endorsement "may render familism values a powerful resource for adaptation" (Losada et al., 2006, p. 74). Thus, the association between familism and adjustment/relationship quality may be stronger in the United States versus countries where Hispanic/Latino culture is the majority. To test these ideas, we aimed to examine country where the sample resided as a potential source of heterogeneity but did not make predictions given this was an exploratory moderator.

We also examined whether the sample came from an established or new/emerging state in the United States for Hispanic/Latino individuals as an additional proxy for the ecological context. Drawing on theories of segmented assimilation (Portes & Rumbaut, 2001), scholars propose that geographic areas of the United States differ in type of destination for Hispanic/Latino individuals, which may represent distinct contexts in which individuals' and families' lives are situated (Potochnick, 2014). Established destinations, with long-term and substantial presence of Hispanic/Latino populations, may offer some advantages, including a strong infrastructure and institutional supports (government, education, service agencies) to meet the needs of immigrants (Potochnick, 2014) and resources to provide services in Spanish, translate materials, and offer English as a second language (ESL) instruction in the schools. These characteristics of established destinations may be promotive features of the context for Hispanic/Latino families.

In contrast, new immigrant destinations are those areas which have seen a rapid influx of Latino/a immigrants after 1990. Between 2000 and 2010, for example, several states in the southern region of the United States (e.g., North Carolina, Georgia) experienced more than 100% growth in their Latino/a populations (U.S. Census Bureau, 2010). Challenges for new and emerging destinations may include more limited providers to offer bilingual services and meet the unique needs of newly arrived immigrants, as well as limited resources within educational settings and institutions to meet this population's needs (Potochnick, 2014). These features of new destinations reflect potential inhibiting factors for Hispanic/Latino families (García Coll et al., 1996). Further, the integrative model proposes that residential segregation directly

influences promotive/inhibiting environments, and some evidence suggests that residential segregation may be more common in new versus established destinations (Conger & Atwell, 2012; Lichter et al., 2010). Whether new versus established destinations are promotive versus inhibiting contexts may, in turn, have implications for the association between familism and individual adjustment/family relationship quality.

Research examining how Latino/a individuals adjust in established versus new/emerging destinations have focused primarily on the implications for youth educational adjustment, with mixed evidence regarding whether established versus new/emerging immigrant destinations are promotive or inhibitive (Conger & Atwell, 2012; Potochnick, 2014; Stamps & Bohon, 2006; Spees et al., 2017). In this systematic review and meta-analysis, we test whether the geographic region (coded at the state-level as a new/emerging, established, or other Hispanic/Latino destination) is a source of variability in the magnitude and direction of the associations between familism and adjustment/relationship quality. We anticipated that familism may be more strongly linked to adjustment in new/emerging versus established states because families may be a more significant source of support in the absence of community and institutional resources to support immigrant populations (Potochnick, 2014).

Methodological Factors

A strength of a meta-analysis is that several sources of methodological variability can be examined to try to explain observed heterogeneity in effect sizes (Card, 2012; Siddaway et al., 2019). Methodological factors, such as measurement and study design, can be associated with effect sizes and are potentially important sources of variability to consider in addition to the theoretically driven moderators such as the person/sample and contextual characteristics we examined (Lipsey, 2003). Following such recommendations, we examined publication type (i.e., peer-reviewed vs. unpublished dissertation), year of publication, type of design (i.e., cross-sectional, prospective), and measurement of familism and outcomes (i.e., within-domain variation) as sources of heterogeneity.

Of special note is the issue of *publication bias* in the field of psychological science, in which nonsignificant results are underrepresented in the extant literature and impact (often upwardly) the magnitude of the overall effect size (Polanin et al., 2016; Rothstein et al., 2005). Peer-reviewed publications in scholarly journals may be more likely to contain significant findings relative to unpublished work, such as dissertations. To address the issue of publication bias, we included both published and unpublished records. We expected that, if there is publication bias, published effect estimates will be larger than unpublished ones. In addition, differences across studies in measures of familism and outcomes, although methodological factors, have the potential to be theoretically informative in providing insights about variations that result from different measures of familism (Tables 1 and 2) and how familism may be linked to different outcomes within a domain of adjustment (e.g., motivation vs. grades in the educational domain). As the examination of methodological factors is exploratory, no specific hypotheses were advanced.

The Present Study

In sum, this systematic review and meta-analysis tests the associations between familism values and indicators of adjustment/

family relationship quality in four domains. Our examination of these associations was broadly framed within the integrative model (García Coll & Magnuson, 1997; White et al., 2018), culturally informed models (Causadias, 2013; Causadias & Cicchetti, 2018), and a bioecological framework (Bronfenbrenner & Morris, 2007). We hypothesized overall positive associations between familism and educational outcomes and family relationship warmth/support, reflecting possible promotive mechanisms. Further, familism was expected to be negatively associated with externalizing and internalizing symptoms and family negativity/conflict, indicative of potential risk reduction mechanisms. Further, a significant contribution of this study is the examination of sources of *heterogeneity* in familism-adjustment/relationship quality associations. We expected that gender moderation may reveal stronger associations when studies have a larger percentage of female sample participants; immigrant (born outside of the United States) status moderation would result in stronger associations when there is a larger percentage of immigrant participants. In contrast to these predictions, our consideration of national origin was exploratory. With regard to developmental period, we expected stronger associations between familism and adjustment/relationship quality in adolescence (particularly early adolescence) relative to childhood and adulthood. For contextual moderators, we predicted stronger associations between familism and adjustment/relationship quality in new/emerging versus established states, but our examination of country where the sample data were collected was exploratory. For methodological moderators, it was expected that publication bias should result in stronger effects in published (i.e., peer-reviewed articles) versus unpublished (i.e., dissertations) data, but the remaining methodological factors were exploratory.

Method

Coding Procedures

Coding was conducted by the first author and a trained graduate (Ph.D.-level) research assistant. A coding scheme was developed prior to data collection to provide transparency and replicability. Specifically, measures of adjustment were coded into the following categories: (a) *educational outcomes* (e.g., attainment, achievement, engagement, motivation, school performance, school support, belonging, or attachment, GPA or grades); (b) *family relationships*, which includes two subdomains - warmth/support (e.g., parent-adolescent warmth; sibling intimacy) and conflict/negativity (e.g., parent-adolescent conflict; sibling negativity); (c) *internalizing problems* (e.g., depression, depressive symptoms, anxiety, internalizing symptoms, mental health problems); and (d) *externalizing problems* (e.g., misconduct, conduct problems, deviant peer affiliations, youth aggression, delinquency). Records were coded independently by the two coders and then reviewed as a team by the two coders and the second author. Discrepancies were resolved via consensus for complete agreement.

Inclusion and Exclusion Criteria

Empirical studies that measure *familism values* were included. We include familism as measured as a single score averaged across subdimensions (e.g., support, obligations, and reference dimensions of Knight et al., 2010) and as measured by subscale

scores in our meta-analysis. Studies also needed to include at least one indicator of adjustment that fell within any of the four selected domains of adjustment/family relationship quality: educational outcomes, family relationships, internalizing symptoms, and externalizing symptoms.

Participants

We included records focused on Hispanic/Latino samples in the United States, Latin America, and Spain. We included studies using the search terms Latino and Hispanic as well as the specific national origin subgroup terms for the 14 largest U.S. Hispanic/Latino subgroups: Mexican, Puerto Rican, Cuban, Salvadoran, Dominican, Guatemalan, Colombian, Honduran, Spaniard, Ecuadorian, Peruvian, Nicaraguan, Venezuelan, and Argentinean (López & Patten, 2015). We included records with Hispanic/Latino and non-Hispanic/Latino participants if effect sizes were reported for Hispanic/Latino participants separately. No other restrictions were placed on participant characteristics.

Research Design

Studies using cross-sectional, prospective, and experimental designs were eligible, however, no experimental studies were identified for inclusion during the systematic search. Meta-analyses, literature reviews, qualitative studies, and single-case research designs were excluded, but no other limitations were placed on the study design.

Time Period

We did not restrict records by their time period. Because research on Hispanic/Latino families has emerged largely within the last three decades (Sabogal et al., 1987; Stein et al., 2015), we expected that the majority of studies would have been conducted in the last 30 years.

Language

Only records published in English were included in the present study. We did not restrict studies by language of questionnaire or survey administration.

Literature Search

As familism values are assessed by different measures across studies, a number of search terms were used in our search conducted in 2017 (preregistered), including *familism*, *familismo*, and *familial values*. Our search for records included PsycINFO/ProQuest, Education Resources Information Center (ERIC), and PubMed (Medline). To identify relevant studies, we used the following set of (preregistered) English search terms in each database: (*familism* OR *familismo* OR *familial values*) AND (*Latin* OR *Hispanic* OR *Mexican* OR *Puerto Rican* OR *Chicano* OR *Central American* OR *South American* OR *Cuban* OR *Salvadoran* OR *Dominican* OR *Guatemalan* OR *Colombian* OR *Honduran* OR *Spaniard* OR *Ecuadorian* OR *Peruvian* OR *Nicaraguan* OR *Venezuelan* OR *Argentinean*). Expanding beyond our initial preregistered terms, we conducted a second search in 2020 using the following terms: (*familial obligations*) OR (*family obligations*) OR (*familial piety*) OR (*family piety*) AND (*Latin* OR *Hispanic* OR *Mexican* OR *Puerto Rican* OR *Chicano* OR *Central American*

OR *South American* OR *Cuban* OR *Salvadoran* OR *Dominican* OR *Guatemalan* OR *Colombian* OR *Honduran* OR *Spaniard* OR *Ecuadorian* OR *Peruvian* OR *Nicaraguan* OR *Venezuelan* OR *Argentinean*).

All records from both searches were initially screened by reviewing titles, abstracts, and if needed, full articles using the inclusion and exclusion criteria. Three additional steps were taken to improve sensitivity. First, in 2019 the second author completed a backward search of records included in a previously published familism review (Stein et al., 2014) and meta-analysis (Valdivieso-Mora et al., 2016). Second, the first author conducted a final check in 2019 to make sure all published records of dissertations were identified. Third, corresponding authors of all records with information missing to include effect sizes were contacted via email by the first or second author between March 1, 2019, and August 9, 2019, for the initial search and between August 31, 2020, and October 6, 2020, for the second search. Further, some missing information was retrieved for five records in which the principal investigator, who is also the second author of this review, had access to the raw data (Davidson et al., 2011; Killoren et al., 2017; McHale et al., 2009; Wheeler et al., 2017; Zeiders et al., 2013). All identified records that met eligibility criteria and included necessary information to calculate effects were included in the database.

Coding of Effect Sizes and Moderators

Effect sizes were coded such that higher scores on familism values reflected higher endorsement of these values. In addition, higher scores on internalizing and externalizing behaviors indicated higher frequencies of behavior problems and higher scores on family conflict/negativity indicated more conflict or negativity. For education and family warmth/support measures, higher scores indicated more positive adjustment. Positive effect sizes for the association between familism and family warmth/support and educational outcomes show that higher endorsement of familism values is related to higher scores on warmth/support and educational outcomes. Negative effect sizes for the association between familism and family conflict/negativity and externalizing and internalizing outcomes indicate that higher endorsement of familism values is related to lower scores of conflict/negativity and internalizing and externalizing behaviors.

Each study was coded for the following characteristics, as continuous or categorical variables. Continuous moderators included gender of participants (percentage of females), target participant nativity and parent/caregiver of target nativity (percentage born outside of the United States), and percentage of sample that was of Mexican, Cuban, and Puerto Rican origin (i.e., the three largest U.S. Hispanic/Latino groups; (Krogstad & Noe-Bustamante, 2020). Additional study characteristics could not be included in the meta-analysis because they were reported inconsistently across studies (e.g., education, income, or other indicators of socioeconomic status; see Table 3 for descriptive purposes).

Categorical study characteristics included country and whether the state was an established, new/emerging, or other geographic location for Hispanic/Latino individuals. To categorize states, we aggregated census data from the county level to the state level and calculated the following metrics, consistent with prior work (Alvarez & Norton-Smith, 2018; Kandel & Cromartie, 2004): (a)

Table 3
Socioeconomic Status Descriptive Information

Record	Income (mean or median)	Other indicators of economic status	Education
Aretakis (2011) ^m	—	64% of students qualified for free or reduced lunch	—
Aretakis et al. (2015) ^m	—	85% of students qualified for free or reduced lunch	—
Arora and Wheeler (2017) ^f	—	families characterized as lower-middle class (43%)	—
Barnett et al. (2016)	Mean annual per capita household income = \$6,460	—	70% of participants reported having at least a high school diploma or equivalent
Baumann et al. (2010) ⁱ	—	—	Mean of 10.60 years of education
Bostean (2012)	—	44% were at 2–5 times the poverty threshold for household income	44.5% reported less than 12.5 years of education
Bravo et al. (2014) ^h	Mean of \$27,857	—	—
Bravo (2016) ^h	Mean of \$27,323	—	Mean of 9 years of education
Burrow-Sanchez et al. (2015)	—	—	—
Bush et al. (2005)	—	—	Less than a grade school education to college or graduate education
Calzada et al. (2014)	Mean of \$21,967	72% of families live in poverty	40% had less than a high school education
Campos et al. (2014)	—	—	College student sample
Cavanaugh et al. (2018)	Median of \$24,999	—	—
Chavez Duenas (2009)	Mean monthly income per capita = \$617	—	Mean household education of 7–12 years
Chavez-Korell et al. (2013)	—	—	Most had a high school education or less
Cheng et al. (2016)	Median of \$20,000–\$34,999, 30% with a family annual income of \$19,999 or below	—	College student sample
Corona et al. (2017)	—	—	College student sample
Corona et al. (2017)	—	43% first to attend college	College student sample
Cupito et al. (2016) ^d	—	—	—
Cupito et al. (2015) ^d	—	—	—
Davidson et al. (2011) ^a	Median of \$40,000	—	Mean of 10 years of education
De Santis et al. (2012)	Median <\$1,000 per month	—	Mean of 12.17 years of education
De Santis et al. (2016)	75% had mean monthly income <\$2,000	—	Mean of 11.1 years of education
Santiago DeCarlo (2011)	Mean monthly income = \$1,806	100% of children received free or reduced lunch	—
Delgado et al. (2011) ^a	Median of \$40,000	—	Mean of 10.05 years of education
Delgado (2009) ^a	Median of \$40,000	—	Mean of 10.05 years of education
Diaz (2011) ^k	—	—	—
Donovick (2011)	84% of mothers and 75% of fathers reported family income of <\$10,000–\$35,000	—	Most had highest level of education of grade 12 or less
East and Chien (2010) ^q	Mean of \$18,525	Sample described as economically disadvantaged; 66% received governmental financial assistance	—
East and Weisner (2009) ^q	Mean of \$18,500	Sample described as economically disadvantaged, 63% received governmental financial assistance	—
Elliott (2001)	—	Sample described as low socioeconomic status	—
Esparza and Sánchez (2008)	—	—	>50% of participants' parents had less than a high school degree
Fallah (2014) ^d	—	—	—
Ferrari (1999)	—	—	56% had completed some college
Fuller-Iglesias and Antonucci (2016)	—	—	Mean of 4.7 years (less than a primary school education)
Gamble and Modry-Mandell (2008)	—	—	55% had less than high school degree/GED equivalent
Garcia-Bravo (2008)	56% had mean income of \$70,000 or more	—	95% some college or greater
Garriott et al. (2017)	—	School district described as serving a large amount of low-income families	93% had not completed a Bachelor's degree

(table continues)

Table 3 (continued)

Record	Income (mean or median)	Other indicators of economic status	Education
Germán et al. (2009)	Mean household per capita income = \$7,220	—	57.7% did not have high school degree
Gonzalez (2017)	34% reported mean annual income <\$15,000	—	65% earned a high school diploma or equivalent
Hernández et al. (2010)	—	—	—
Howarter (2014)	Median income based on ZIP code = \$38,501	76.7% had reduced priced lunch	Most had some high school education
Hurwich-Reiss and Gudiño (2016)	—	—	—
Ibanez (2002)	—	Families described as earning lower or middle income	—
Jean-Van Hell (2001)	38.9% had annual family income above \$50,000	—	Most had a high school degree or beyond
Kapke et al. (2017)	Most had mean income of <\$40,000	—	Most graduated high school/GED or beyond
Keeler et al. (2014)	52% mean family income <\$20,000	—	49% did not graduate high school
Kiang and Fuligni (2009)	—	—	—
Killoren (2008) ^a	Median of \$40,000	18.3% of families in the sample met the federal poverty guidelines	Mean of 10 years of education
Killoren et al. (2014) ^c	—	—	—
Killoren et al. (2015) ^a	Median of \$40,000	—	Mean of 10 years of education
Killoren et al. (2016)	—	—	Most had some high school or completed high school
Killoren et al. (2017) ^a	Median of \$40,000	18.3% of families in the sample met the federal poverty guidelines	Mean of 10 years of education
Kline et al. (2016) ^c	—	High school student population described as economically disadvantaged (78%)	Some high school or completed high school
Koerner and Shirai (2012)	76% had average annual household income of <\$60,000	—	55% had some college or vocation/technical school
Kuhlberg et al. (2010) ⁱ	—	—	Mean parent education level of 10.57
Kuo et al. (2015) ^a	Median of \$40,000	—	Mean of 10.62 years of education
Lac et al. (2011)	Median income based on ZIP codes ranged from \$29,000 to \$73,000	—	—
Li (2013) ^f	—	—	—
Lin (2007) ^j	Mean of \$12,461	—	26% of primary caregivers = < eight grade education, 27% of secondary caregivers = < a high school education
Long et al. (2015)	Per capita income \$7,278	—	Mean of 12.40 years of school
Lorenzo-Blanco et al. (2012)	Census data of median income based on ZIP codes served by the schools ranged from \$ 29,000 to \$73,000	—	Most were had graduate high school or less
Losada et al. (2006)	—	—	Most had an education level of some high school or high school graduate or less than high school
Mahrer (2015) ^k	—	—	—
Mahrer et al. (2019) ^k	Mean of \$51,7,312	—	37% of mothers and 48% of fathers had less than high school education level
Marsiglia et al. (2009) ^l	—	—	most had some high school
Martinez et al. (2012) ^f	—	—	—
McHale et al. (2009) ^a	Median of \$40,000	Families met federal poverty guidelines (18.3%)	Mean of 10 years of education
McHale et al. (2005) ^a	Mean of \$53,183	18.3% of families in the sample met the federal poverty guidelines	Mean of 10.08 years of education
Medrano (2011)	“Participants’ income varied, with the majority of participants falling in the 30,000 to 44,999 income range.” (p. 29)	—	Most had a Bachelor’s degree or equivalent, or a Master’s degree or equivalent
Muñoz-Laboy et al. (2014) ^e	—	—	30% had an education of 10th - 11th grade
Muñoz-Laboy et al. (2013) ^e	—	—	30% had education level of 10th - 11th grade
Ocegueda (2010)	26% had mean income from \$20,000 to \$29,999	—	Most had a high school education or less
Ojeda et al. (2011)	—	—	—

(table continues)

Table 3 (continued)

Record	Income (mean or median)	Other indicators of economic status	Education
Ornelas and Perreira (2011)	—	—	36% had < eighth grade education
Padilla et al. (2016) ^a	Median of \$41,000	—	Mean of 10 years of education
Perez-Brena et al. (2017) ^a	Median of \$40,000	—	Mean of 10 years of education
Piña-Watson et al. (2015)	—	—	—
Piña-Watson (2014)	—	—	—
Polo et al. (2012) ^f	—	Sample participants from public school described as being in a low-income urban neighborhood	—
Porras (2011)	—	—	—
Reibman (2002)	41% had mean income of <\$12,000	—	—
Reid et al. (2018)	—	—	—
Rivas-Drake and Marchand (2016)	60% had mean income <\$30,000	—	43% < high school degree
Zapata Roblyer and Betancourth Zambrano (2016)	80% had mean income <\$30,000	—	80% had not earned a high school diploma
Roche et al. (2012) ^f	—	—	Mean of 3.40 years
Rodríguez (2002)	Mean of \$36,050	—	Mean of 12.37 years of education
Rodríguez De Jesús (2015) ^a	Median of \$40,000	—	Mean of 10 years of education
Rodríguez De Jesús et al. (2019) ^a	Median of \$40,000	—	Mean of 10.11 years of education
Roosa et al. (2011) ^b	Median of \$30,000 – \$35,000	—	Mean of 10.34 years of education
Sanchez (2013)	—	—	—
Smokowski et al. (2010) ^l	Mean of \$25,270	—	69% did not graduate from high school
Smokowski et al. (2007) ^l	Median of \$19,000, Mean of \$22,446	—	67% had not graduated high school
Smokowski and Bacallao (2006) ^l	Median of \$19,200, Mean of \$23,045	—	67% had not graduated high school
Smokowski et al. (2009) ^l	—	—	—
Smokowski et al. (2007)	Mean of \$24,000	—	—
Sommers et al. (1993)	—	—	—
Sotomayor-Peterson (2012) ^g	—	—	50% of mothers and over 60% of fathers had no high school degree or GED
Stein et al. (2015) ^d	—	—	—
Tasopoulos-Chan et al. (2009) ^p	—	—	Most mothers (50%) and fathers (48%) had a high school degree or less
Tasopoulos-Chan (2013) ^p	—	—	—
Telzer (2012) ⁿ	—	—	65% of mothers and 75% of fathers did not complete high school
Telzer et al. (2013) ⁿ	—	—	—
Telzer et al. (2015) ⁿ	—	—	The majority of parents had < high school degree
Telzer et al. (2014) ⁿ	—	—	Most parents did not complete high school
Tsai et al. (2016) ⁿ	—	—	72% of parents had less than a high school education
Tsai (2014) ^o	—	—	80% of parents had at least a high school education
Tsai et al. (2015) ⁿ	—	—	73% had some high school education
Umaña-Taylor et al. (2011) ^h	Mean of \$27,621	—	Parents' mean education was ninth grade
Updegraff et al. (2012) ^a	Median of \$41,000	—	Mean of 10 years of education
Updegraff et al. (2005) ^a	Median of \$40,000	18.3% of families in the sample met the federal poverty guidelines	Mean of 10 years of education
Urizar and Sears (2006)	Mean of \$16,200	—	50% had at least a high school education
Valenzuela and Dornbusch (1994)	—	—	Mean parent education = high school graduate
Vargas et al. (2013) ^b	Median of \$25,001–\$30,000	—	Mean of 10.4 years
Weisskirch (2013)	—	—	—
Wheeler (2017) ^a	Median of \$40,000	—	Mean of 10 years of education
White et al. (2012) ^b	Mean of \$30,001–\$35,000	Sample participants from neighborhoods with poverty rates of 15.87%	33% completed high school or equivalent
White (2008)	Mean of \$36,200	15% of families below poverty	Mean of 10.23 years of education
White et al. (2015)	Median of \$25,001–\$30,000	poverty rates = 0.56% to 68.53% (0.78% to 68.48%)	—
Witkow et al. (2015) ^o	—	—	—
Yau et al. (2009) ^p	—	Sample participants described as being from primarily low-income families	Mean education = 2.23 (5-point scale)

(table continues)

Table 3 (continued)

Record	Income (mean or median)	Other indicators of economic status	Education
Young (2016)	—	Family socioeconomic status (SES) described as low	15% educated beyond high school
Zapata Roblyer et al. (2017)	—	Sample participants' socioeconomic status described as very low (35.4%), low (40.8%), or middle class (20.3%)	48% had not completed high school
Zeiders et al. (2016) ^a	Median of \$41,000. Mean of \$53,184	18.3% met the federal poverty guidelines	Mean of 10 years of education
Zeiders et al. (2015) ^b	Median of \$22,000	—	—
Zeiders et al. (2013) ^a	Median of \$40,000	18.3% met the federal poverty guidelines	Mean of 10 years of education

Note. Study overlap: Records with the same alphabetical superscripts indicate overlapping samples. In some cases, SES descriptives were reported by authors based on the total sample of study participants (e.g., SES of Latinx and other race/ethnic group participants).

the percentage of the population that was Hispanic/Latino in 1990; and (b) the percentage of growth in the Hispanic/Latino population from 1990–2010. Using the cut points detailed by Alvarez and Norton-Smith (2018), we coded states where > 9% of the population was Hispanic/Latino in 1990 as “established” because these states exceeded the national average for the Hispanic/Latino population in the United States in 1990. We identified states as “emerging/new” if the Hispanic/Latino population was less than or equal to 9% in 1990 and grew by 150% or more between 1990 and 2010. Finally, the remaining states were labeled as “other” because they did not meet the criteria for established or emerging/new states. Specifically, “other” locations were those that had <9% Hispanic/Latino population in 1990 and grew less than 150% between 1990 and 2010. Using these criteria, of the states represented in this systematic review and meta-analysis, established states were Arizona, California, Colorado, Florida, New Mexico, New York, and Texas; new/emerging states were Georgia, North Carolina, Oklahoma, Utah, Virginia, Washington, and Wisconsin; and states coded as “other” included Illinois, Massachusetts, Michigan, and Rhode Island.

To code each effect size into a developmental period category, we used the mean age of the sample and the following cut points to create categories: Childhood (infancy to age 10); early adolescence (ages 11–15); late adolescence (ages 16–18); young adulthood (ages 19–25); middle adulthood (ages 26 to 39); and late adulthood (ages 40 and older). These categories were informed by developmental theory and the availability of research on familism in each developmental period. Childhood included infancy through age 10 due to the limited research on familism and adjustment in samples prior to the age of 10.

For methodological factors, the only continuous moderator was year of the record (mean centered). Categorical moderators included adjustment measure (specified within each domain), familism measure (categorized by the citation of the measure), publication type (i.e., peer-reviewed vs. unpublished dissertation), and design (cross-sectional vs. prospective). Design was coded at the effect size level, such that studies may contribute both cross-sectional effect sizes (i.e., a concurrent association between familism and adjustment/relationship quality) and prospective effect sizes (i.e., association between familism and future assessment of adjustment/relationship quality). Moderator analyses were only conducted when at least three independent studies were available for a continuous moderator and for each category of the categorical moderators. For the following reference groups, we examined

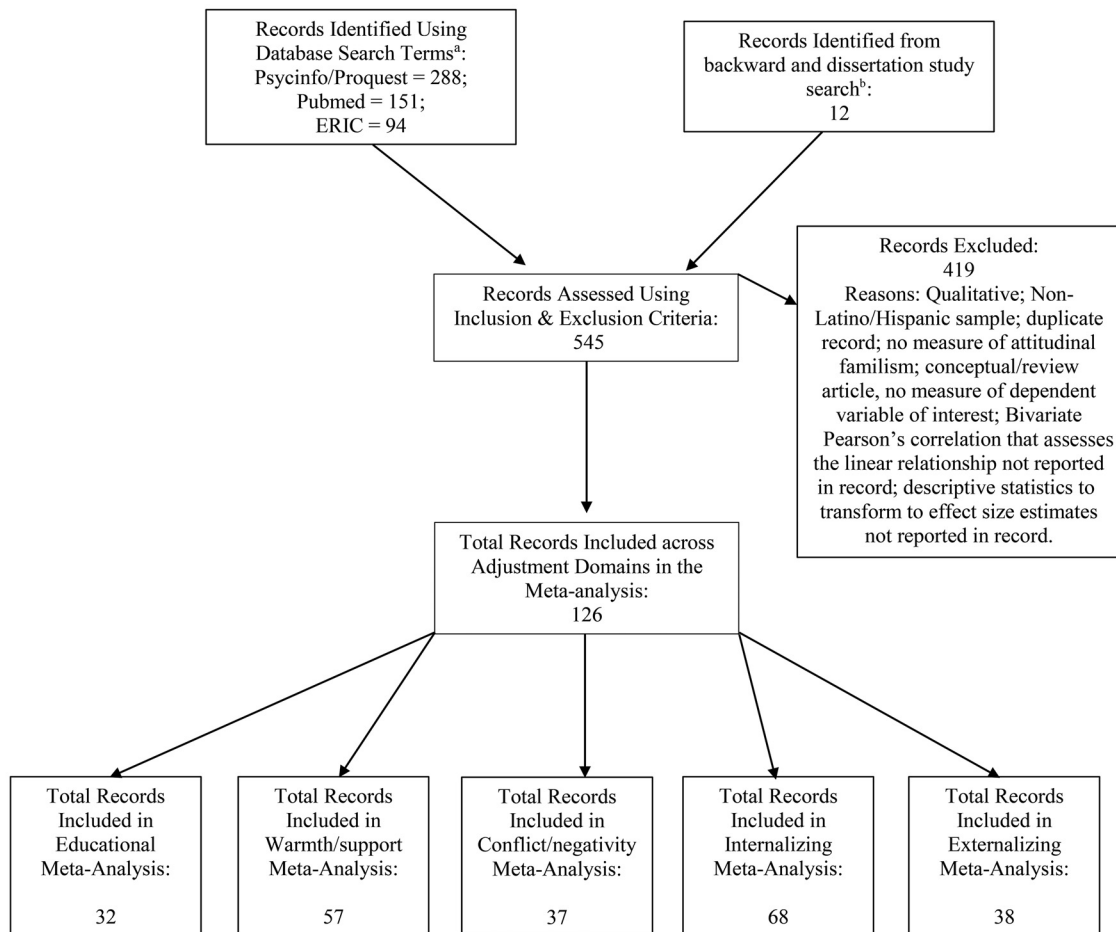
the most common category across all the domains of adjustment and selected reference groups as follows to ensure consistency across the domains: (a) early adolescence for developmental period; (b) Knight et al. (2010) for measure of familism; (c) established state in the United States; (d) cross-sectional effects for study design, and (e) published records for publication type.

Data Analysis Approach

All analyses were conducted in Rstudio v.1.4.1103 (R v. 4.3). All R functions and analyses described in the following paragraphs were specified and conducted within the package “metafor” (Viechtbauer, 2010). All of the effect sizes that we coded were Pearson’s correlations (r) that assessed the linear relationship between familism and adjustment/relationship quality. We applied Fisher’s Z_r transformations to correlations, and standard errors of Fisher’s Z_r were computed as the square root of the variance estimates. We then back-transformed to Pearson’s r for reporting the overall summary effect of each domain. To assess the magnitude and direction of the association between familism and adjustment, studies that met all eligibility criteria (see Figure 1) were examined using a three-level multilevel model (MLM) meta-analysis with restricted maximum-likelihood (REML) estimation method.

We used three-level MLM to account for the dependent effect sizes within records and effects between independent studies (Cheung, 2014; Konstantopoulos, 2011; Van Den Noortgate et al., 2013). Ignoring the clustered data structure would violate the meta-analytic assumption of independence (Card, 2012; Cheung, 2014). The dependencies in the data can be modeled in different ways using MLM (Cheung, 2014); based on the structure of the dependencies in our databases we selected independent studies (σ_1^2 , the variability between the population of studies) and records nested within studies (σ_2^2 , the variability within the population of studies as our grouping variables). We specified the three-level model with nested random effects in our model for correlations within each record, and random effects for each record within each study. Level 1 is sampling variance of the effect sizes, level 2 is within-study variance, and level 3 is between-study variance. One limitation of using MLM to handle dependent effect sizes is that these models assume that the effect size estimates themselves are uncorrelated, but this is unlikely to be met in this study, which may lead to model misspecification.

Figure 1
Flowchart Depicting Screening and Inclusion Procedures



Note. ^a Search completed in 2020. ^b Backwards/forwards search completed in 2019.

We addressed this issue by applying the *robust* function from the metafor package to the fitted models to construct a (cluster) robust estimate of the model coefficients based on a sandwich-type estimator (Viechtbauer, 2010). We applied the default small-sample correction as an adjustment for when the number of clusters are small (Viechtbauer, 2010). Inferences made from the robust-variance method provide more appropriate estimates of coefficients, standard errors, *p* values and CIs in data where clusters include nonindependent effect size estimates (Hedges et al., 2010; Tanner-Smith et al., 2016). To examine the proportion of variability that is attributable to the outer factor (study) and the inner factor (record), we computed the intraclass correlation (ICC) estimate (Viechtbauer, 2010). Further, we compared the fit of the original three-level (full) model versus the fit of a two-level (reduced) model where the between study variance is not modeled using model fit statistics of Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), and likelihood ratio test statistic (LRT) with the corresponding significance value to determine which model had adequate fit to the data.

We assessed heterogeneity by interpreting test statistics of *Q*, the overall *I*², the between- and within-cluster *I*², and by inspecting

the forest plots of the effect sizes included in the overall summary effect. Because *I*² is a relative measure of variability and is influenced by the number of studies (Borenstein et al., 2017), we also report σ_1^2 and σ_2^2 from the metafor package as estimates of between- and within-study variance (Viechtbauer, 2010). To ascertain how the effects of familism vary according to sample, study, and methodological characteristics, we tested moderation by conducting MLM metaregression analyses. We interpreted a significant omnibus *F* test of coefficients (*F*), which follows an *F*-distribution with degrees of freedom based on the number of coefficients tested (*df*₁) and the number of clusters (*df*₂); the significant *F* test value suggests differences among all coefficients in the model. We interpreted significant individual regression coefficient as evidence for moderation (Viechtbauer, 2010).

To facilitate interpretation of significant continuous moderators we computed implied effect sizes that are based on predicted values at different levels of the continuous moderator (\hat{r} ; Card, 2012). As a test for publication bias, we fit a random effects metaregression model to the data based on Egger's test of asymmetry, which examines the relation between the observed effect sizes and their standard errors (Sterne & Egger, 2006). However, because this test

assumes independence between effect sizes, we applied the *robust* function to our metaregression model to obtain less biased estimates of their standard error and 95% CI. Based on the *robust* model results, if there was a significant association between the outcome and standard errors, we interpreted this as evidence of funnel plot asymmetry.

Results

The results of the literature search, after removing duplicates, and meeting eligibility criteria, revealed a total of 126 included records from 73 independent studies (data sets) published across the years of 1993 to 2019 (see Figure 1). On average, we extracted three effect sizes per record (range = 1–30). Specifically, we included 32 records for the educational domain (115 effect sizes from 21 independent studies; 34% unpublished dissertations; 19% longitudinal), 57 for family relationships—support/warmth (283 effect sizes from 34 independent studies; 32% unpublished dissertations; 17% longitudinal), 37 for family relationships—conflict/negativity (119 effect sizes from 23 independent studies; 22% unpublished dissertations; 17% longitudinal), 68 records for internalizing symptoms (200 effect sizes from 46 independent studies; 13% unpublished dissertations; 14% longitudinal), and 38 for externalizing domain (132 effect sizes from 21 independent studies; 16% unpublished dissertations; 23% longitudinal).

Characteristics of Studies

Characteristics of studies reported in each of the included records are described in Table 3 for socioeconomic status indicators and in Tables 1–5 in the online supplemental materials for all other study characteristics. As shown in Table 3, there was substantial variability in the availability of indicators of socioeconomic status, with 51% of records reporting no information on sample income, 33% reporting no information on sample education levels, and 77% reporting no other indicators of socioeconomic status. Overall, 20% of records did not report any information on sample income, education, or other indicators of socioeconomic status (e.g., poverty rates, occupational indicators). Turning to other features of included studies, most focused on the developmental period of early and late adolescence, ranging from 48% of studies in the internalizing domain to 76% of studies in the externalizing domain. On average, the percentage of female participants across studies ranged from 54% (educational domain) to 61% (conflict/negativity domain). All sample participants were reported as Hispanic/Latino per criteria for selection, and most participants were of Mexican-origin, with the average percentage across studies ranging from 76% (internalizing domain) to 90% (family relationships-warmth/support domain). Among the samples included in the meta-analysis, the percentage of sample participants born outside the United States ranged from an average of 31% in the educational domain to 47% in the internalizing domain. For the sample percentages of parents/caregivers born outside the United States, the average range across studies was 67% (warmth/support) to 81% (conflict/negativity). In total, there were nine longitudinal studies (22 records) that were included in the meta-analysis.

Most studies were based on samples from the United States, with most of the samples coming from established Hispanic/Latino destination states of the United States in the educational (60%),

internalizing (67%), externalizing (71%) and family relationship conflict/negativity (79%) domains, and the largest percentage coming from established states in the family relationship "warmth/support domains" (84%). Across all domains, there were a total of seven independent studies that included participants from countries outside of the United States.

In the sections below, we describe the results by domain (see Figure 2 and 3 for a summary), beginning with the overall effect size and 95% CI of the overall effect size and variance estimates, which are profile likelihood CIs (Viechtbauer, 2007). Then sources of heterogeneity are examined via tests of moderation by person/sample, contextual, and methodological characteristics. Only significant moderators are described in the text, but the results of all moderation tests are shown in table form. For each domain of adjustment, a final analysis in the moderator section is described where all significant moderators are included in the same model to determine sources of heterogeneity when all moderating factors are examined simultaneously.

Results of Familism and Educational Outcomes

Goal 1: Testing the Overall Association

The overall effect was positive in direction and significant, with higher familism associated with more positive educational outcomes, $r = .16$, 95% CI [.08, .23], $Q(114) = 798.17$, $p < .001$. Effect sizes ranged from $r = -.34$ to $r = .45$. We found more between-study variability (level-3), $\sigma^2_1 = .021$, 95% C.I. [.008, .046], than within-study variability (level 2), $\sigma^2_2 = .004$, 95% C.I. [.001, .012]. A large amount of systematic heterogeneity emerged in the data ($I^2_{Total} = 84\%$), with 71% due to between-study and 13% due to within-study heterogeneity. The test of model fit was significant, $LRT = 10.87$, $p = .001$, for the comparison between the two-level and three-level model. The three-level model fit the data better based on the BIC fit index ($BIC_{Full} = 33.41$, $BIC_{Reduced} = 39.54$), and the AIC fit index ($AIC_{Full} = 25.20$, $AIC_{Reduced} = 34.07$). The ICC (.845) suggested that the effects within studies were strongly correlated, and therefore, we retained the three-level model.

Goal 2: Testing Moderator Effects

Study Characteristics. We tested whether gender, Mexican and Puerto Rican national origin, target participants' and their

Figure 2
Overall Results Summary From the Hypothesized Model

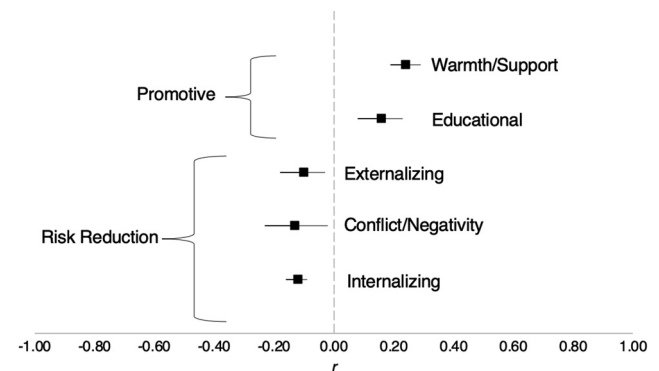
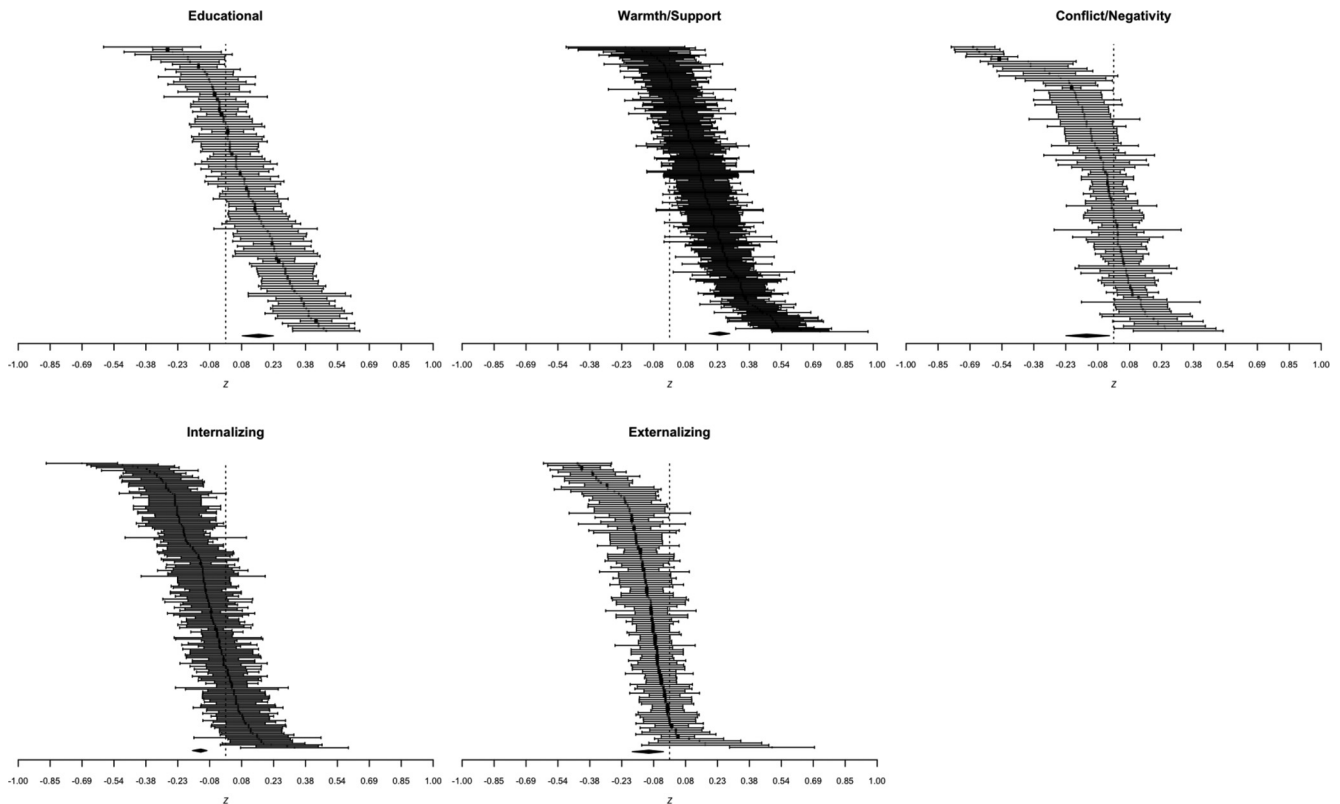


Figure 3
Forest Plot of Fisher's Z Transformed Correlations



parents/primary caregivers' nativity, developmental period, and U.S. destination moderated the overall effect between familism and educational outcomes (see Table 4), and significant moderation emerged for nativity and developmental period. For *target* participants' nativity status, the implied effect size decreased when the percentage of target participants born outside of the United States increased: 0% $\hat{r} = .22$, 95% CI [.10, .33]; 25% $\hat{r} = .17$, 95% CI [.09, .26]; 50% $\hat{r} = .13$, 95% CI [.07, .19]; 75% $\hat{r} = .08$, 95% CI [.02, .14]; and 100% $\hat{r} = .03$, 95% CI [-.05, .12]. In contrast, for *parents/primary caregivers' nativity status*, the implied effect size increased in the positive direction when the percentage of parents/primary caregivers born outside of the United States increased: 0% $\hat{r} = -.22$, 95% CI [-.43, .01]; 25% $\hat{r} = -.09$, 95% CI [-.25, .07]; 50% $\hat{r} = .03$, 95% CI [-.07, .13]; 75% $\hat{r} = .16$, 95% CI [.09, .23]; and 100% $\hat{r} = .28$, 95% CI [.18, .37]. In addition, effect sizes were smaller for samples composed of the late adolescence developmental period, $r = .14$, 95% CI [.07, .21], and young adulthood, $r = .08$, 95% CI [-.01, .16], as compared with samples composed of the early adolescence developmental period, $r = .22$, 95% CI [.15, .30].

Methodological Characteristics. We found evidence of moderation by year of record, measure of educational outcome, and study design, but not for familism measure or publication type (see Table 5). For year of record, the correlation between familism and educational outcomes increased in more recent publication years (see Table 5). We computed the implied effect size for year 2000 $\hat{r} = .05$, 95% CI [-.03, .12], 2005 $\hat{r} = .10$, 95% CI [.03, .16], 2010 $\hat{r} = .15$, 95% CI [.08, .22], 2015 $\hat{r} = .20$, 95% CI [.11, .28], and 2020 $\hat{r} = .25$,

95% CI [.14, .35]. For educational outcome, the model included grades/GPA (reference group) versus academic motivation, expectations, and attainment. The effect size was larger for academic motivation, $r = .20$, 95% CI [.05, .34], and educational expectations, $r = .11$, 95% CI [.01, .20], relative to grades/GPA, $r = .03$, 95% CI [-.06, .12]. For study design, the model included cross-sectional study effects (reference group) versus prospective study effects. The effect size was smaller for prospective, $r = .10$, 95% CI [.02, .18], relative to cross-sectional effects, $r = .16$, 95% CI [.09, .23]. For the final model including all significant moderators, there was no significant moderation, $F(9, 1) = 118.39, p = .07$.

Results of Familism and Family Warmth/Support

Goal 1: Testing the Overall Association

The overall effect between familism and family relationship warmth/support was positive in direction and significant, such that higher familism was associated with higher levels of family warmth and support, $r = .24$, 95% CI [.19, .29], $Q(282) = 1586.69, p < .001$. Effect sizes ranged from $r = -.21$ to $r = .62$ (see Figure 3). We found more between-study variability (level-3), $\sigma_1^2 = .015$, 95% C.I. [.006, .033], than within-study variability (level 2), $\sigma_2^2 = .005$, 95% C.I. [.002, .012]. There was a large amount of systematic heterogeneity ($I^2_{\text{Total}} = 83\%$), with 63% attributable to between-study and 20% attributable to within-study heterogeneity. The comparison of model fit between the two-level and three-level model was significant, $LRT = 14.00, p < .001$. The BIC fit ($BIC_{\text{Full}} = 22.17, BIC_{\text{Reduced}} = 30.53$)

Table 4

Summary of Study Characteristic Moderators of the Relation Between Familism and Educational Outcomes

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Percent female	21	115				.021	.004	0.03	795.23***
Intercept			0.17	.045	[0.00, 0.33]				
Slope			-0.02	.865	[-0.26, 0.22]				
Percent Mexican	19	101				.024	.003	1.69	714.63***
Intercept			0.25	.002	[0.11, 0.40]				
Slope			-0.11	.211	[-0.27, 0.07]				
Percent Puerto Rican	15	77				.017	.003	0.36	527.37***
Intercept			0.12	.011	[0.03, 0.21]				
Slope			0.22	.559	[-0.56, 0.99]				
Percent born outside of U.S. (Target)	17	97				.018	.004	5.46*	522.66***
Intercept			0.22	.002	[0.10, 0.35]				
Slope			-0.19	.034	[-0.36, -0.02]				
Percent born outside of U.S. (Parent)	13	78				.008	.004	13.88***	344.36***
Intercept			-0.22	.058	[-0.45, 0.01]				
Slope			0.51	.003	[0.21, 0.81]				
Developmental period	19	112				.012	.005	7.74**	612.20***
Early adolescence (Intercept) ^a			0.23	.000	[0.15, 0.31]				
Late adolescence			-0.09	.001	[-0.14, -0.04]				
Young adulthood			-0.15	.003	[-0.25, -0.06]				
U.S. destination	20	107				.019	.004	1.80	647.32***
Established destination (Intercept) ^a			0.12	.021	[0.02, 0.21]				
New destination			0.09	.360	[-0.11, 0.29]				
Other destination			0.15	.083	[-0.02, 0.32]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity; σ_1^2 and σ_2^2 = heterogeneity within- and between-study, respectively. Developmental Period is based on the average of the mean age at familism assessment and the mean age at adjustment assessment. Positive effects indicate that greater endorsement of familism is related to more positive educational outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

and AIC fit index suggested that the three-level model had better fit to the data (AIC_{Full} = 11.24, AIC_{Reduced} = 23.25). Additionally, the ICC (.756) suggested that the effects within studies were correlated, and for this reason, we retained the three-level model.

Goal 2: Testing Moderator Effects

Study Characteristics. Significant moderation between familism and family relationship warmth/support emerged for the percentage of the sample that was of Puerto Rican origin, but there was no significant moderation by developmental period, gender, Mexican national origin, percentage born outside of the United States, or U.S. destination (see Table 6). For the percentage of Puerto Rican origin participants, the implied effect size decreased when the percentage of Puerto Rican origin participants increased: 0% \hat{r} = .24, 95% CI [.17, .30]; 25% \hat{r} = .22, 95% CI [.17, .26]; 50% \hat{r} = .20, 95% CI [.16, .23]; 75% \hat{r} = .18, 95% CI [.15, .20]; and 100% \hat{r} = .16, 95% CI [.14, .18].

Methodological Characteristics. As shown in Table 7, the effect size of familism and family relationship warmth/support was a significantly larger, negative effect size when the measure of familism was Fuligni et al. (1999), *r* = .36, 95% CI [.26, .45], versus Knight et al. (2010), *r* = .20, 95% CI [.14, .25]. In contrast, there was no significant moderation by any other methodological factors, including year of record, adjustment measure, study design, or publication type. In the final model including all significant moderators we found significant moderation, *F*(3, 10) = 259.99, *p* < .001, by Puerto Rican origin, β_{Zr} = 7.12, *p* < .001, 95% CI [6.54, 7.70], and familism measure developed by Fuligni et al. (1999) versus Knight et al. (2010), β_{Zr} = .22, *p* < .001, 95% CI [.16, .29].

Results of Familism and Family Conflict/Negativity

Goal 1: Testing the Overall Association

The overall effect size between familism and family relationship conflict/negativity was negative in direction (i.e., higher familism linked to lower conflict/negativity) and significant, *r* = -.13, 95% CI [-.23, -.02], *Q*(118) = 1558.45, *p* < .001. Effect sizes ranged from *r* = -.59 to *r* = .30 (see Figure 3). We found more between-study variability (level-3), σ_1^2 = .057, 95% CI [.032, .113], than within-study variability (level 2), σ_2^2 = .001, 95% CI [.000, .004]. There was a large amount of systematic heterogeneity (*I*²_{Total} = 95%), with 94% attributable to between-study and 1% attributable to within-study heterogeneity. We found that the three-level model fit the data better than the two-level model, as the test of model fit was significant, LRT = 39.52, *p* < .0001; and the AIC (AIC_{Full} = -128.73, AIC_{Reduced} = -91.21) and BIC (BIC_{Full} = -120.42, BIC_{Reduced} = -85.67) was lower for the three-level model, with the three-level model fitting the data better. The ICC (.991) suggested that the effects within studies were strongly correlated, and for this reason, we retained the three-level model.

Goal 2: Testing Moderator Effects

Study Characteristics. For the association between familism and family conflict/negativity, significant moderators included gender, Mexican origin, Puerto Rican origin, and developmental period (see Table 8), but no moderation emerged by percentage born outside of the United States or U.S. destination. For the percentage of female participants, the implied effect size decreased when the percentage of female

Table 5
Summary of Methodological Moderators of the Relation Between Familism and Educational Outcomes

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Year of record	21	115				.020	.003	10.63**	784.77***
Intercept			0.17	.000	[0.09, 0.25]				
Slope			0.01	.004	[0.00, 0.02]				
Adjustment measure	17	49				.017	.000	7.85**	117.38***
GPA/Grades (Intercept) ^a			0.03	.534	[-0.06, 0.12]				
vs. Motivation			0.18	.025	[0.03, 0.33]				
vs. Expectations			0.08	.002	[0.03, 0.13]				
vs. Attainment			0.01	.802	[-0.08, 0.10]				
Familism measure	14	80				.017	.002	1.17	384.24***
Knight et al. (Intercept) ^a			0.19	.044	[0.01, 0.37]				
vs. Lugo et al.			-0.01	.934	[-0.28, 0.26]				
vs. Sabogal et al.			-0.03	.739	[-0.23, 0.18]				
vs. Villarreal et al.			0.10	.358	[-0.12, 0.31]				
Design	21	115				.020	.004	23.62***	784.45***
Cross-sectional (Intercept) ^a			0.16	.000	[0.09, 0.24]				
vs. Prospective			-0.06	.000	[-0.09, -0.04]				
Publication type	21	115				.019	.004	2.37	781.06***
Published (Intercept) ^a			0.17	.001	[0.09, 0.26]				
vs. Dissertation			-0.05	.140	[-0.11, 0.02]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity σ_2^2 and σ_1^2 = variance within- and between-study, respectively; Positive effects indicate that greater endorsement of familism is related to more positive educational outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

participants increased: 0% $\hat{r} = -.14$, 95% CI [-.26, -.01]; 25% $\hat{r} = -.13$, 95% CI [-.25, -.01]; 50% $\hat{r} = -.13$, 95% CI [-.25, -.01]; 75% $\hat{r} = -.13$, 95% CI [-.24, -.01]; and 100% $\hat{r} = -.12$, 95% CI [-.24, -.00]. For the percentage of Mexican origin participants, the magnitude of the effect size decreased when the percentage of Mexican origin participants increased: 0% $\hat{r} = -.50$, 95% CI [-.67, -.29]; 25% $\hat{r} = -.40$, 95% CI [-.55, -.23]; 50% $\hat{r} = -.29$, 95% CI [-.42, -.16]; 75% $\hat{r} = -.18$, 95% CI [-.28, -.07]; and 100% $\hat{r} = -.06$, 95% CI [-.17, .06]. In contrast, for the percentage of Puerto Rican origin participants, the implied effect size increased when the percentage of Puerto Rican origin participants was larger: 0% $\hat{r} = -.08$, 95% CI [-.20, .04]; 25% $\hat{r} = -.41$, 95% CI [-.60, -.17]; 50% $\hat{r} = -.65$, 95% CI [-.86, -.26]; 75% $\hat{r} = -.81$, 95% CI [-.96, -.34]; and 100% $\hat{r} = -.90$, 95% CI [-.99, -.41]. For developmental period, samples composed of young adulthood, $r = -.17$, 95% CI [-.29, -.04], and middle adulthood $r = -.40$, 95% CI [-.61, -.14], had a larger association between familism and conflict/negativity versus samples composed of late adolescence $r = -.09$, 95% CI [-.22, .05], and early adolescence $r = -.10$, 95% CI [-.22, .03].

Methodological Characteristics. We found evidence of moderation by year of record, with a range of 1999 to 2019 for publication year (see Table 9), such that the more recent the publication year, the smaller the effect between familism and family conflict/negativity. We computed the implied effect size for the year 2000 $\hat{r} = -.19$, 95% CI [-.31, -.07], 2005 $\hat{r} = -.16$, 95% CI [-.27, -.05], 2010 $\hat{r} = -.13$, 95% CI [-.24, -.03], 2015 $\hat{r} = -.10$, 95% CI [-.21, .00], and 2020 $\hat{r} = -.07$, 95% CI [-.19, .04]. No moderation emerged for familism measure, study design, and publication type, and there were not enough independent studies (i.e., at least three) to code separate measures (or subtypes) of conflict/negativity as a moderator. In the final model, there was significant moderation, $F(7, 5) = 41.69$, $p < .001$, by the year of record, $\beta_{Zr} = .01$, $p < .001$, 95% CI [.01, .01], samples composed of young adulthood versus early adolescence, $\beta_{Zr} = -.09$, $p < .01$, 95%

CI [-.14, -.03], and samples composed of middle adulthood versus early adolescence, $\beta_{Zr} = -.41$, $p < .05$, 95% CI [-.81, -.00].

Results of Familism and Internalizing Outcomes

Goal 1: Testing the Overall Association

The overall summary effect size for familism and internalizing was significant and negative in direction, $r = -.12$, 95% CI [-.16, -.09], $Q(199) = 761.80$, $p < .001$ (see Figure 3), such that higher familism was associated with lower internalizing outcomes. As displayed in Figure 3, effect sizes ranged from $r = -.60$ to $r = .32$ across records. We found more between-study variability (level 3), $\sigma_1^2 = .008$, 95% C.I. [.004, .016], than within-study variability (level 2), $\sigma_2^2 = .003$, 95% C.I. [.001, .007]. There was large systematic heterogeneity in the data ($I^2_{Total} = 74\%$), with 55% of the heterogeneity between studies and 19% within studies. The test of model comparison suggested significant differences between the two- and three-level models, $LRT = 14.03$, $p < .001$, and the fit indices of AIC (AIC_{Full} = -219.33, AIC_{Reduced} = -207.30) and BIC (BIC_{Full} = -209.45, BIC_{Reduced} = -200.71) suggested that the three-level model fit the data better than the two-level model. The ICC (.734) suggested that the effects within studies were strongly correlated, and for this reason, we retained the three-level model to more accurately estimate the standard error.

Goal 2: Testing Moderator Effects

Study Characteristics. Significant moderation for familism and internalizing symptoms was found by developmental period and U.S. destination, but there was no moderation by gender, national origin (Mexican, Cuban, or Puerto Rican), or percentage of participants/parents born outside of the U.S (see Table 10) For

This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Table 6

Summary of Study Characteristics Moderators of the Relation Between Familism and Family Relationship Warmth/Support

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Percent female	32	279				.014	.004	2.58	1,559.77***
Intercept			0.27	.000	[0.21, 0.33]				
Slope			-0.03	.119	[-0.07, 0.01]				
Percent Mexican	30	257				.015	.005	0.01	1,462.42***
Intercept			0.24	.041	[0.01, 0.46]				
Slope			0.01	.922	[-0.24, 0.26]				
Percent Puerto Rican	23	231				.015	.005	6.19*	1,271.37***
Intercept			0.24	.000	[0.17, 0.31]				
Slope			-0.08	.021	[-0.15, -0.01]				
Percent born outside of U.S. (Target)	28	246				.020	.003	1.02	1,310.30***
Intercept			0.23	.000	[0.15, 0.31]				
Slope			0.06	.322	[-0.06, 0.17]				
Percent born outside of U.S. (Parent)	21	231				.019	.004	0.010	1,308.73***
Intercept			0.24	.000	[0.14, 0.35]				
Slope			-0.01	.920	[-0.14, 0.13]				
Categorical moderators									
Developmental period	33	277				.012	.006	1.86	1,522.17***
Early adolescence (Intercept) ^a			0.25	.000	[0.19, 0.31]				
Childhood			-0.10	.047	[-0.20, -0.00]				
Late adolescence			0.01	.477	[-0.02, 0.05]				
Young adulthood			0.08	.422	[-0.13, 0.30]				
Adulthood			-0.09	.206	[-0.23, 0.05]				
U.S. destination	30	259				.016	.005	0.40	1,503.6***
Established destination (Intercept) ^a			0.24	.000	[0.19, 0.30]				
New destination			0.08	.531	[-0.18, 0.35]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity; σ_2^2 and σ_1^2 = heterogeneity within- and between-study, respectively.; Developmental Period is based on the average of the mean age at Familism assessment and the mean age at Adjustment assessment. Positive effects indicate that greater endorsement of familism is related to more warmth/support outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

developmental period, there was a smaller negative association with internalizing symptoms in samples composed of late adulthood, $r = -.02$, 95% CI [-0.13, .01], as compared with early adolescence, $r = -.15$, 95% CI [-0.20, -.09], and late adolescence $r = -.11$, 95% CI [-0.16, -.05]. For U.S. destination, there was a larger negative association for participants recruited in new/emerging states, $r = -.21$, 95% CI [-0.27, -.15], versus established states, $r = -.10$, 95% CI [-0.14, -.06].

Methodological Characteristics. As shown in Table 11, the effect size differed by familism measure, with a significantly larger negative effect size for internalizing and the familism measure developed by Gil and Vega (1996; 2000), $r = -.29$, 95% CI [-0.38, -.20], versus Knight et al. (2010), $r = -.08$, 95% CI [-0.14, -.03]. No other methodological characteristics (year of record, adjustment measure, study design, or publication type) significantly moderated the familism–internalizing association.

As a final step, all significant moderators were tested in a single model. The overall test of moderation was significant, $F(11, 22) = 2.54$, $p < .05$, suggesting that samples composed of early adolescence compared with late adolescence had a larger negative association with internalizing, $\beta_{Zr} = .05$, $p = .012$, 95% CI [.01, .08], and studies that used the familism measure developed by Knight et al. (2010) versus Gil and Vega (1996; Gil et al., 2000) had a smaller negative association with internalizing, $\beta_{Zr} = -.25$, $p = .022$, 95% CI [-0.45, -.04].

Results of Familism and Externalizing Outcomes

Goal 1: Testing the Overall Association

The overall effect was significant and negative in direction, with higher familism associated with lower externalizing outcomes, $r = -.10$, 95% CI [-0.18, -.03], $Q(131) = 378.19$, $p < .0001$. Effect sizes ranged from $r = -.42$ to $r = .46$ (see Figure 3). We found more between-study variability (level 3), $\sigma_1^2 = .024$, 95% CI [.010, .057], than within-study variability (level 2), $\sigma_2^2 = .001$, 95% CI [.000, .003]. There was a large amount of systematic heterogeneity ($I^2_{Total} = 88\%$): 86% was due to between-study and 2% was due to within-study heterogeneity. We found a significant difference in model fit between the two- and three-level models, $LRT = 20.12$, $p < .0001$; $AIC(AIC_{Full} = -236.86, AIC_{Reduced} = -218.74)$, $BIC(BIC_{Full} = -228.23, BIC_{Reduced} = -212.99)$, with the three-level model fitting the data better. The ICC (.974) suggested that the effects within studies were strongly correlated, and thus, we retained the three-level model to estimate standard errors more accurately.

Goal 2: Testing Moderator Effects

Study Characteristics. Examining moderation between familism and externalizing outcomes, significant factors included percentage of participants and parents/primary caregivers born outside of the United States, but other moderators examined, including gender, national origin (Mexican, Puerto Rican), developmental period and

Table 7

Summary of Methodological Moderators of the Relation Between Familism and Family Relationship Warmth/Support

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Year of record	34	283				.015	.006	0.12	1,581.84***
Intercept			0.24	.000	[0.19, 0.29]				
Slope			0.00	.732	[-0.01, 0.01]				
Categorical moderators									
Adjustment measure	23	172				.023	.004	0.37	920.36***
Warmth/acceptance (Intercept) ^a			0.27	.000	[0.18, 0.35]				
vs. Cohesion			-0.00	.890	[-0.06, 0.05]				
vs. Sibling Relationships			-0.02	.404	[-0.08, 0.04]				
Familism measure	22	235				.009	.005	3.24*	977.60***
Knight et al. (Intercept) ^a			0.20	.000	[0.14, 0.26]				
vs. Lugo et al.			0.07	.463	[-0.13, 0.27]				
vs. Sabogal et al.			0.01	.933	[-0.13, 0.14]				
vs. Fuligni et al.			0.18	.007	[0.05, 0.30]				
Design	34	283				.015	.005	0.05	1,571.57***
Cross-sectional (Intercept) ^a			0.24	.000	[0.19, 0.29]				
vs. Prospective			0.00	.817	[-0.02, 0.03]				
Publication type	33	263				.016	.005	0.62	1,518.56***
Published (Intercept) ^a			0.25	.000	[0.19, 0.31]				
vs. Dissertation			-0.02	.435	[-0.09, 0.04]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity σ_2^2 and σ_1^2 = variance within- and between-study, respectively; Positive effects indicate that greater endorsement of familism is related to more warmth/support outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

U.S. destination were not significant (see Table 12). For target participants' nativity status, the implied effect size increased when the percentage of target participants born outside of the United States increased: 0% $\hat{r} = -.07$, 95% CI [-.17, .02]; 25% $\hat{r} = -.12$, 95% CI [-.20, -.03]; 50% $\hat{r} = -.16$, 95% CI [-.24, -.08]; 75% $\hat{r} = -.20$, 95% CI [-.28, -.13]; and 100% $\hat{r} = -.25$, 95% CI [-.32, -.17]. For target participants' parents/primary caregivers' nativity status, the implied effect size increased in the negative direction with a greater percentage of parents/primary caregivers born outside of the United States: 0% $\hat{r} = .06$, 95% CI [-.05, .17]; 25% $\hat{r} = .02$, 95% CI [-.09, .12]; 50% $\hat{r} = -.02$, 95% CI [-.13, .08]; 75% $\hat{r} = -.07$, 95% CI [-.17, .04]; and 100% $\hat{r} = -.11$, 95% CI [-.22, .01].

Methodological Moderators. We found evidence of significant moderation between familism and externalizing symptoms by year of record and adjustment measure, but no differences emerged by familism measure, study design, or publication type (see Table 13). Year of record ranged from 2005 to 2019 for publication year. Effects for year of record suggest that the more recent the publication year, the larger the negative effect between familism and externalizing: year 2000 $\hat{r} = -.05$, 95% CI [-.15, .05], 2005 $\hat{r} = -.07$, 95% CI [-.16, .02], 2010 $\hat{r} = -.09$, 95% CI [-.18, -.01], 2015 $\hat{r} = -.12$, 95% CI [-.20, -.04], and 2020 $\hat{r} = -.14$, 95% CI [-.22, -.06]. For adjustment measure, we compared the measures that included at least three effect sizes from independent studies, which included externalizing behavior composite scores (reference group) versus measures of risky behaviors and deviant peers. The negative effect size was smaller for deviant peers, $r = -.07$, 95% CI [-.12, -.01], relative to externalizing, $r = -.10$, 95% CI [-.16, -.04]. Further, in the final model including all significant moderators, the overall test of moderation was significant, $F(5, 2) = 31.49$, $p < .05$, but no moderator had a significant

influence on the association between familism and externalizing over and above the other moderators.

Testing Heterogeneity and Publication Bias

It is important to determine whether significant sources of heterogeneity exist in the combined analysis, given that significant heterogeneity suggests underlying differences between study effects and would warrant caution in interpreting results from the summary effect (Higgins et al., 2003). One method to assess heterogeneity was by visually inspecting the effect size estimates and CIs from the forest plots. Overall, most effects were in the expected direction and small in magnitude and had wide CIs. The amount of variability within studies (σ_2^2) ranged from .000 to .005 and the amount of variability between studies (σ_1^2) ranged from .008 to .060. We found that a large amount of heterogeneity was not attributed to sampling error alone based on the magnitude of I^2 and significance of the *Q* test. However, it is important to keep in mind that power influences rejecting the null hypothesis of the *Q* test; including few studies leads to an underpowered test whereas too many studies can lead to an overpowered test (Higgins & Thompson, 2002). High heterogeneity suggests systematic differences between studies in the combined analysis, meaning that the summary effects should be interpreted cautiously.

Publication bias also was examined using three approaches. The first approach was to examine publication type as a moderator of the summary effect using MLM metaregression. Publication type (published in peer-reviewed journals vs. unpublished dissertations) was not a significant moderator for any of the domains, suggesting no difference in the effects between published studies versus unpublished dissertations (see Tables 5, 7, 9, 11 and 13). We also

Table 8

Summary of Study Characteristic Moderators of the Relation Between Familism and Family Relationship Conflict/Negativity

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Percent female	21	113				.063	.000	6.98*	1,551.51***
Intercept			-0.14	.032	[-0.26, -0.01]				
Slope			0.02	.016	[0.00, 0.03]				
Percent Mexican	20	113				.048	.001	14.83***	546.94***
Intercept			-0.55	.000	[-0.80, -0.30]				
Slope			0.49	.001	[0.22, 0.76]				
Percent Puerto Rican	15	105				.037	.001	7.79*	406.11***
Intercept			-0.08	.159	[-0.20, 0.04]				
Slope			-1.40	.015	[-2.48, -0.32]				
Percent born outside of U.S. (Target)	14	90				.063	.000	4.49	786.14***
Intercept			-0.03	.764	[-0.26, 0.20]				
Slope			-0.33	.058	[-0.67, 0.01]				
Percent born outside of U.S. (Parent)	11	90				.066	.000	0.26	480.12***
Intercept			0.07	.815	[-0.56, 0.70]				
Slope			-0.20	.624	[-1.11, 0.71]				
Categorical moderators									
Developmental period	19	104				.048	.001	86.20***	797.10***
Early adolescence (Intercept) ^a			-0.10	.127	[-0.23, 0.03]				
vs. Late adolescence			0.01	.399	[-0.01, 0.03]				
vs. Young adulthood			-0.07	.000	[-0.09, -0.05]				
vs. Middle adulthood			-0.33	.042	[-0.65, -0.01]				
U.S. destination	18	101				.061	.001	0.02	518.91***
Established destination (Intercept) ^a			-0.13	.027	[-0.24, -0.02]				
vs. New destination			0.04	.877	[-0.53, 0.61]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity; σ_2^2 and σ_1^2 = heterogeneity within- and between-study, respectively; Developmental Period is based on the average of the mean age at Familism assessment and the mean age at Adjustment assessment. Positive effects indicate that greater endorsement of familism is related to more conflict/negativity outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

visually examined and tested funnel plot asymmetry. Funnel plots were based on univariate models (centered at the model estimate) for records examining the effect of familism and each domain of adjustment (see Figure 4). There was no clear asymmetry across the funnel plots. When we regressed effect sizes on their standard error

for each domain, based on Egger's test of asymmetry with robust variance estimation, none of our tests suggested evidence of funnel plot asymmetry. In summary, the three approaches for determining the presence of publication bias revealed no clear evidence of publication bias.

Table 9

Summary of Methodological Moderators of the Relation Between Familism and Family Relationship Conflict/Negativity

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Year of record	23	119				.054	.001	5.88*	1,492.42***
Intercept			-0.12	.033	[-0.23, -0.01]				
Slope			0.01	.024	[0.00, 0.01]				
Categorical moderators									
Familism measure	15	94				.046	.001	0.07	422.81***
Knight et al. (Intercept) ^a			-0.11	.328	[-0.33, 0.12]				
vs. Lugo et al.			0.05	.750	[-0.27, 0.36]				
vs. Sabogal et al.			0.01	.960	[-0.28, 0.29]				
Design	23	119				.057	.001	1.31	1,494.17***
Cross-sectional (Intercept) ^a			-0.13	.024	[-0.24, -0.02]				
vs. Prospective			0.01	.255	[-0.01, 0.03]				
Publication type	22	111				.057	.001	0.21	1,367.97***
Published (Intercept) ¹			-0.13	.026	[-0.25, -0.02]				
vs. Dissertation			-0.02	.679	[-0.10, 0.06]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity σ_2^2 and σ_1^2 = variance within- and between-study, respectively; Positive effects indicate that greater endorsement of familism is related to more conflict/negativity outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

Table 10
Summary of Study Characteristic Moderators of the Relation Between Familism and Internalizing Outcomes

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Percent female	46	199				.009	.003	0.57	753.67***
Intercept			-0.11	.000	[-0.16, -0.07]				
Slope			-0.02	.454	[-0.06, 0.03]				
Percent Mexican	41	167				.007	.003	0.81	599.89***
Intercept			-0.16	.000	[-0.25, -0.08]				
Slope			0.04	.374	[-0.05, 0.14]				
Percent Cuban	23	117				.005	.001	1.87	361.90***
Intercept			-0.10	.000	[-0.15, -0.05]				
Slope			0.05	.186	[-0.03, 0.13]				
Percent Puerto Rican	30	142				.006	.005	0.20	500.40***
Intercept			-0.11	.000	[-0.16, -0.06]				
Slope			-0.09	.660	[-0.51, 0.33]				
Percent born outside of U.S. (Target)	40	183				.009	.004	0.97	728.84***
Intercept			-0.18	.000	[-0.27, -0.09]				
Slope			0.09	.331	[-0.10, 0.27]				
Percent born outside of U.S. (Parent)	23	148				.011	.004	1.06	560.96***
Intercept			-0.04	.599	[-0.22, 0.13]				
Slope			-0.11	.315	[-0.33, 0.11]				
Categorical moderators									
Developmental period	45	195				.008	.003	2.46*	690.70***
Early adolescence (Intercept) ^a			-0.15	.000	[-0.20, -0.09]				
vs. Childhood			0.05	.406	[-0.07, 0.16]				
vs. Late adolescence			0.04	.035	[0.00, 0.08]				
vs. Young adulthood			0.03	.187	[-0.02, 0.08]				
vs. Adulthood			-0.06	.260	[-0.17, 0.05]				
vs. Late adulthood			0.13	.048	[0.00, 0.25]				
U.S. destination	42	189				.005	.004	4.32*	595.41***
Established destination (Intercept) ^a			-0.10	.000	[-0.14, -0.06]				
vs. New destination			-0.11	.006	[-0.19, -0.03]				
vs. Other destination			-0.04	.669	[-0.21, 0.14]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity; σ_2^2 and σ_1^2 = heterogeneity within- and between-study, respectively. Developmental period is based on the average of the mean age at familism assessment and the mean age at adjustment assessment. Positive effects indicate that greater endorsement of familism is related to more internalizing outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

Discussion

Familism values are a key feature of adaptive culture (García Coll et al., 1996; White et al., 2018) among Hispanic/Latino individuals, the largest ethnic-racial minority group in the United States (Noe-Bustamante, 2019). Particularly in the last three decades, there has been substantial attention devoted to the empirical examination of how individuals' and family members' familism values are related to a broad range of developmental, educational, family relationship, and mental health outcomes (Stein et al., 2014; Perez & Cruess, 2014; Valdivieso-Mora et al., 2016). We advanced this work by conducting a systematic review and meta-analysis, guided by theoretical notions of the integrative model (García-Coll et al., 1996; White et al., 2018) and culturally grounded (Causadias, 2013) and bioecological frameworks (Bronfenbrenner & Morris, 2006).

This meta-analysis provides the *first* quantitative synthesis of the associations between Hispanic/Latino individuals' familism and both educational outcomes and family relationship quality, and the broadest, most encompassing quantitative synthesis of familism in relation to internalizing and externalizing outcomes. Examining multiple indicators of adaptive and maladaptive

outcomes is critical to efforts to move past deficit-oriented models, which have persisted in the field, despite scholars' calls for a greater emphasis on strength-based approaches and positive development and adjustment in the study of ethnic-racial minority populations (García Coll et al., 1996; Perez-Brena et al., 2018). The findings of this meta-analysis revealed significant positive associations between familism and educational adjustment and family warmth/support, consistent with the possibility of culture as a potential promotive factor, and significant negative associations between familism and adjustment problems and family conflict/negativity, consistent with familism as a possible risk reducing factor (Causadias, 2013). Together, these findings offer a more balanced perspective on the role of familism in Hispanic/Latino individuals' adjustment/relationship quality than can be gained from a sole focus on maladjustment (Valdivieso-Mora et al., 2016).

Equally critical to advancing the field from a strength-based perspective is testing sources of diversity that exist *within* Hispanic/Latino populations (Baca Zinn & Wells, 2000; García Coll et al., 1996), rather than treating Hispanics/Latinos as a monolithic group for which the relations between familism values and adjustment/relationship quality are universal (Calzada et al., 2012; White et

This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Table 11
Summary of Methodological Characteristic Moderators of the Relation Between Familism and Internalizing Outcomes

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Year of record	46	200				.009	.003	0.26	756.47***
Intercept			-0.12	.000	[-0.16, -0.08]				
Slope			0.00	.611	[-0.01, 0.01]				
Categorical moderators									
Adjustment measure	45	181				.012	.002	1.18	614.15***
Depression (Intercept) ^a			-0.10	.001	[-0.16, -0.05]				
vs. Internalizing			-0.06	.441	[-0.20, 0.09]				
vs. Stress			0.07	.151	[-0.03, 0.17]				
vs. Anxiety			-0.02	.515	[-0.08, 0.04]				
Familism measure	38	185				.008	.002	3.95**	530.58***
Knight et al. (Intercept) ^a			-0.08	.006	[-0.14, -0.03]				
vs. Lugo et al.			-0.02	.523	[-0.10, 0.05]				
vs. Sabogal et al.			-0.01	.759	[-0.11, 0.08]				
vs. Gil et al.			-0.22	.001	[-0.34, -0.10]				
vs. Fuligni et al.			0.02	.733	[-0.11, 0.15]				
Design	46	199				.008	.003	0.38	745.82***
Cross-sectional (Intercept) ^a			-0.12	.000	[-0.16, -0.09]				
vs. Prospective			0.02	.543	[-0.05, 0.09]				
Publication type	46	200				.008	.003	2.83	761.79***
Published (Intercept) ^a			-0.13	.000	[-0.17, -0.09]				
vs. Dissertation			0.04	.100	[-0.01, 0.08]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity σ_2^2 and σ_1^2 = variance within- and between-study, respectively. Positive effects indicate that greater endorsement of familism is related to more internalizing outcomes.

^a Reference group for moderator analyses.

** *p* < .01. *** *p* < .001.

al., 2018). Within every domain examined, there was significant heterogeneity across studies sampled. This pattern underscores the need to look at factors that explain this variability, both to inform future research and to provide insights for targeted prevention and intervention efforts with regard to *for whom, in what contextual circumstances, along what points on the life span, and for what outcomes*, the benefits or risks of familism may be greatest. Among the factors that we examined as potential sources of heterogeneity, developmental period (measured by sample mean age at the time-point where familism and outcome measures were assessed) emerged as a significant moderator for internalizing symptoms, educational outcomes, and family relationship conflict/negativity. This is an important contribution because the only existing meta-analysis on familism and maladjustment included primarily studies of adolescent-aged samples (i.e., greater than 80%; Valdivieso-Mora et al., 2016). Because research that examines developmental (intraindividual) change in the associations between familism and adjustment/relationship quality across the life span is not yet available, meta-analysis provides a method to quantify and compare these effect sizes at distinct points in the life span as a first step.

Familism and Individual Adjustment/Family Relationship Quality

A goal of this meta-analysis was to quantify the effect size in each of the domains. Although this meta-analysis was grounded in culturally informed models that lead to predictions about familism as a promotive and risk mechanism (Causadias, 2013; White et al., 2018), the effect sizes extracted from studies were predominantly cross-sectional (ranging from 77% to 83% across domains), leaving the direction of effects a largely unanswered question. Thus,

we framed our interpretations with this caveat in mind. These effect sizes should also be interpreted with a broad understanding of the characteristics of the studies sampled, as they have implications for generalizability. Consistent with their representation as the largest proportion of the Hispanic/Latino population in the United States (Noe-Bustamante et al., 2019), Mexican-origin individuals represented about three-fourths of the U.S. samples in this meta-analysis. Also consistent with demographics that the largest U.S. immigrant group is of Mexican origin (Budiman, 2020), more than two-thirds of the samples of target participants had parents/caregivers who were born outside the United States. Most studies were of U.S. samples, and about half of the U.S. samples came from states characterized as established destinations for Hispanic/Latino populations (e.g., California, Texas, New York). The implications are that the effect sizes best represent samples with these characteristics, and that these effects might differ if the compositions of studies sampled were different. Outside of these limitations, an important strength of our meta-analytic approach was that we tested whether some sources of variability contributed to differences in the magnitude and direction of effects, including sample (e.g., gender, nativity, national origin) and contextual characteristics. These tests of moderation provide insights on whether differences in study characteristics may strengthen or weaken these associations.

Educational Outcomes

This meta-analysis was the first to quantify the effect between familism and educational outcomes, and revealed a small positive association, suggesting that stronger familism values may be associated with more positive educational adjustment, consistent

Table 12*Summary of Study Characteristic Moderators of the Relation Between Familism and Externalizing Outcomes*

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Percent female	21	131				.025	.001	2.16	358.04***
Intercept			−0.09	.040	[−0.17, −0.00]				
Slope			−0.03	.158	[−0.06, 0.01]				
Percent Mexican	21	132				.025	.001	0.10	353.60***
Intercept			−0.13	.201	[−0.34, 0.08]				
Slope			0.03	.756	[−0.2, 0.26]				
Percent Puerto Rican	14	115				.039	.001	1.40	280.66***
Intercept			−0.08	.250	[−0.21, 0.06]				
Slope			−0.21	.259	[−0.59, 0.17]				
Percent born outside of U.S. (Target)	18	123				.022	.001	27.65***	349.01***
Intercept			−0.07	.126	[−0.17, 0.02]				
Slope			−0.18	.000	[−0.25, −0.11]				
Percent born outside of U.S. (Parent)	15	109				.030	.000	29.70***	213.29***
Intercept			0.06	.256	[−0.05, 0.17]				
Slope			−0.17	.000	[−0.23, −0.10]				
Categorical moderators									
Developmental period	21	124				.024	.001	0.44	312.94***
Early adolescence (Intercept) ^a			−0.10	.018	[−0.18, −0.02]				
vs. Childhood			0.00	.962	[−0.03, 0.03]				
vs. Late adolescence			−0.01	.358	[−0.03, 0.01]				
U.S. destination	19	129				.023	.001	0.03	317.49***
Established destination (Intercept) ^a			−0.10	.043	[−0.20, −0.00]				
vs. New destination			−0.01	.875	[−0.12, 0.11]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity; σ_2^2 and σ_1^2 = heterogeneity within- and between-study, respectively.; Developmental Period is based on the average of the mean age at Familism assessment and the mean age at Adjustment assessment. Positive effects indicate that greater endorsement of familism is related to more externalizing outcomes.

^a Reference group for moderator analyses.

*** *p* < .001.

with our prediction of a promotive association (Causadias, 2013). Strong familism values may underlie one's motivation toward educational achievement as a way to bring honor to and positively reflect on one's family (Fuligni et al., 1999; Gonzales et al., 2009; Polo et al., 2012). Particularly for individuals from immigrant families, one's efforts to succeed in their education may be a way to give back to and demonstrate respect for the family's sacrifices (Ceballos, 2004). One's strong familism values also may lead to the development of family support systems that are beneficial for educational pursuits (Cupito et al., 2016; Polo et al., 2012). Although these conceptual underpinnings suggest that familism values may lead to educational success, it is also possible that one's educational efforts invoke a positive response from family members, strengthening one's family values and supports. Our findings highlight the potentially important links between familism and a range of educational adjustment indicators, but future research is needed to determine the direction of these effects.

Looking within the educational domain at the different indicators of adjustment, the positive association was stronger between familism and academic motivation (.20) relative to the overall effect (.16), but slightly weaker for educational expectations (.11) and close to zero for grades/GPA. These moderation analyses contribute to a more nuanced understanding of the potential links between familism and educational adjustment, suggesting that these values may be more closely linked to intrinsic motivation, effort, and engagement (Esparza & Sánchez, 2008; Fuligni et al., 1999; Gonzales et al., 2009) as compared with grades, possibly

due to other factors that may impact grades, such as teacher biases and perceptions (e.g., Kozlowski, 2015; Mahatmya et al., 2016) and racism (Benner & Graham, 2013).

Aligning with our developmental predictions, there was a stronger association between familism and educational outcomes in adolescence (both early and late) versus young adulthood, but there were not enough studies to conduct comparisons with childhood samples. Comparatively, the effect size for early adolescence was higher than the overall effect (.22 vs. .16), whereas the effect for late adolescence was similar (.14) and the young adulthood effect was smaller (.08). As adolescents are internalizing familism values (Knight et al., 2009), their endorsement of these values may be important for their educational trajectories (Mello, 2008; 2009) as they complete their secondary education and make decisions regarding next steps (e.g., postsecondary education, vocational/job training, or work). This meta-analysis is novel in quantifying the size of these associations in different developmental periods as a first step toward understanding variation across the life span. An important future direction will be conducting longitudinal studies that examine intraindividual development of familism and educational outcomes from childhood to adulthood and test for *developmental change* in the strength of these associations.

Our predictions about the role of nativity of target participants and their parents/caregivers as moderators were framed within the integrative model (García Coll et al., 1996; García Coll & Magnusson, 1997) and the immigrant paradox (Gallo et al., 2009; Gonzales et al., 2009). Unexpectedly, a different pattern emerged for participants' versus parents'/caregivers' nativity. For parents'

Table 13*Summary of Methodological Moderators of the Relation Between Familism and Externalizing Outcomes*

Measure	<i>k</i>	<i>ESs</i>	β_{Zr}	<i>p</i> Value	[95% CI]	σ_1^2	σ_2^2	<i>F</i>	<i>Q</i> _{residual}
Continuous moderators									
Year of record	21	132				.026	.000	5.59*	377.99***
Intercept			-0.11	.015	[-0.19, -0.02]				
Slope			-0.01	.029	[-0.01, -0.00]				
Categorical moderators									
Adjustment measure	16	118				.007	.000	31.37***	198.86***
Externalizing (Intercept) ^a			-0.10	.002	[-0.16, -0.04]				
vs. Risky behaviors			-0.01	.247	[-0.04, 0.01]				
vs. Deviant peers			0.03	.001	[0.02, 0.05]				
Familism measure	13	111				.010	.000	1.33	181.66***
Knight et al. (Intercept) ^a			-0.12	.009	[-0.21, -0.04]				
vs. Gil et al.			-0.05	.272	[-0.15, 0.05]				
Design	21	131				.024	.001	0.21	369.32***
Cross-sectional (Intercept) ^a			-0.10	.014	[-0.19, -0.02]				
vs. Prospective			0.01	.655	[-0.03, 0.04]				
Publication type	21	132				.021	.001	2.05	374.22***
Published (Intercept) ^a			-0.12	.005	[-0.19, -0.04]				
vs. Dissertation			0.07	.169	[-0.03, 0.16]				

Note. *k* = number of studies; *ESs* = number of effect size estimates; β_{Zr} = estimate of average association (*Zr*) or slope (β); 95% CI = 95% confidence interval; *F* = value of the test of moderators; *Q*_{residual} = residual heterogeneity σ_2^2 and σ_1^2 = variance within- and between-study, respectively. Positive effects indicate that greater endorsement of familism is related to more externalizing outcomes.

^a Reference group for moderator analyses.

* *p* < .05. *** *p* < .001.

nativity, familism was related to more positive educational adjustment for samples that were 75% to 100% born outside of the United States (.16 to .28) than the overall association (.16); whereas the association between familism and educational adjustment was negative for samples with primarily U.S.-born parents/caregivers (-.09 to -.22), suggesting that higher familism was related to less positive educational outcomes. These findings are consistent with the notion that nativity may evoke different developmental processes and outcomes (Fulgini, 2001; García Coll & Magnuson, 1997; Updegraff et al., 2012), and with predictions based on the immigrant paradox that strong familism values may be beneficial in immigrant families by promoting supports for education (Gallo et al., 2009; Gonzales et al., 2009). For U.S.-born parents/caregivers, the associations reflect a different direction of effects, such that youth's educational struggles may elicit family-oriented responses (hence the negative association) or that strong familism values may be less beneficial among youth with U.S.-born parents/caregivers who have fewer ties to Hispanic/Latino culture.

The findings for *target participants'* nativity, in contrast, revealed that the association was positive in direction, but larger when samples included a lower percentage of participants who were born outside of the United States (.22) and close to zero when samples included a high percentage of participants born outside of the United States (.03). Findings are counter to the expectation that benefits will be greatest for immigrant individuals, but may underlie attention to a greater complexity, which is the combination of individuals' and their parents' immigrant status (Perez-Brena et al., 2015; Umaña-Taylor et al., 2014). Although it was not possible to explore within our meta-analysis due to the lack of consistent information provided in individual samples, capturing the combination of parents' and target participants' nativity, such as whether parents and target participants were both U.S.-born, both born outside of the United States, or of mixed status, may shed further light on the role of the immigrant paradox in

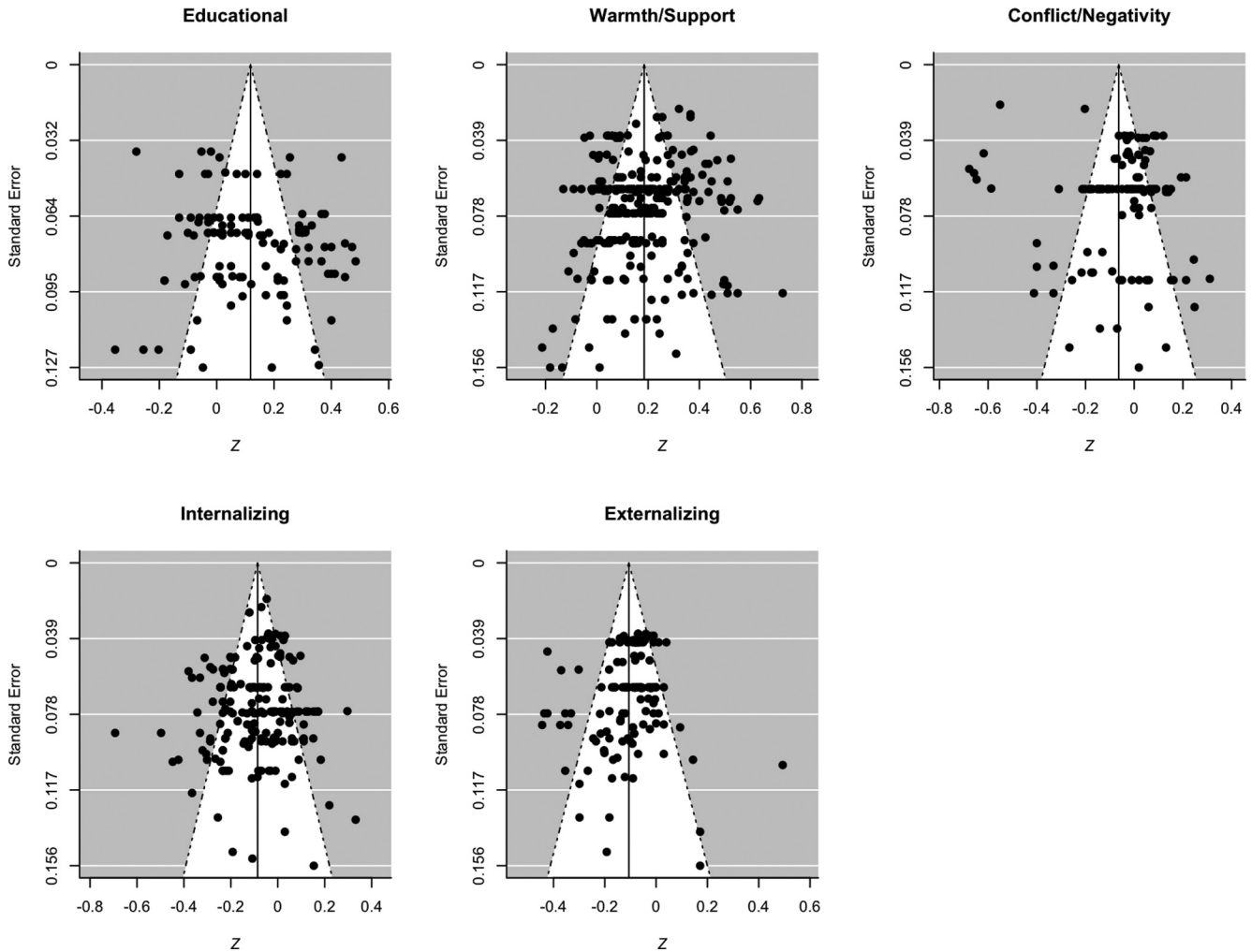
educational outcomes. It is also worth noting that when all significant moderators were included in the same model, none were significant, further suggesting possible confounds among moderators, including parents'/caregivers' and target participants' nativity.

Family Relationship Quality

The positive association between familism and family relationship warmth/support was the largest effect (.24) of the domains examined in this study, which is considered between a small and medium effect (Cohen, 1992; Funder & Ozer, 2019). The association between familism and family conflict/negativity was also significant, but smaller in magnitude and negative (-.13), as expected. Theoretically, these results are consistent with conceptualizations suggesting that familism may promote cohesive and supportive relationships (Campos et al., 2008; Stein et al., 2014), and reduce negativity and conflictual interactions within families (Peterson & Bush, 2013; Taylor et al., 2012). Harmonious family relationships, in turn, may be sources of human and social capital for Hispanic/Latino individuals given the importance placed on these relationships (Knight et al., 2010). The majority of these effect sizes came from cross-sectional studies, however, so the direction of effect cannot be determined.

Longitudinal studies investigating whether these associations operate in one direction (e.g., familism to family relationship warmth/support) or are bidirectional will be an important next step. In a rare study of bidirectional associations, Padilla et al. (2016) documented that parent-youth conflict predicted future discrepancies between parents and adolescents in their familism values, but discrepancies in familism values did *not* predict future conflict. Although this study addressed more complex family dynamics (i.e., parent-youth differences in familism), the findings suggest the importance of examining bidirectional associations between familism and family relationship quality in future work.

Figure 4
Funnel Plot of Fisher's Z Transformed Correlations



In looking at potential variability in these effect sizes, the association between familism and family warmth/support was similar across the majority of person (sample) characteristics examined in this meta-analysis. With the exception of sample variation in the percentage of Puerto Rican participants, lack of moderator findings potentially suggest *consistency* in the positive associations between familism and family support/closeness. In contrast, the links between familism and family relationship conflict/negativity were moderated by sample variation in gender, Mexican and Puerto Rican national origin, and developmental period, highlighting substantial sources of heterogeneity in familism-family conflict/negativity linkages.

Contrary to our prediction that familism values may be more salient for females than males (e.g., Cupito et al., 2016; Lorenzo-Blanco et al., 2012; Updegraff et al., 2005), when samples included a higher percentage of females the effect size was smaller. Potentially important in interpreting these findings is that the individual studies in this domain with primarily female participants (80% to 100%) included samples who experienced intra- or interpersonal demands/stressors in their daily lives, including adolescent mothers (Bravo et al., 2014; East & Chien,

2010), a sample of 50% suicide attempters (Kuhlberg et al., 2010), and adult caregivers (Koerner & Shirai, 2012). Thus, one possibility is that the level of stress experienced among the predominantly female samples in these studies may have introduced a confound, as familism may be less promotive when daily demands/stressors are high.

Indeed, Koerner and Shirai (2012) found that caregivers' familism was associated with greater conflicts around caregiving, and associations between familism and conflict were nonsignificant for adolescent mothers (Bravo et al., 2014; East & Chien, 2010), but some negative associations emerged as well, including between mothers' and younger siblings' familism and conflict with adolescent mothers (East & Chien, 2010) and among the sample that was 50% female suicide attempters (Kuhlberg et al., 2010). These variable findings may, in part, explain the smaller effect sizes when there was a larger percentage of females in the studies included, especially given this was the only domain where gender moderated the associations. Further, these findings underscore the need to closely examine the *conditions* under which familism values may be related to lower conflict/adjustment, particularly considering

sources of intrapersonal (Kuhlberg et al., 2010) and interpersonal stress (Koerner & Shirai, 2012).

Our investigation of variation by national origin was exploratory, but it is an important step to gain insights regarding the generalizability of familism—adjustment/relationship quality effect sizes across different Hispanic/Latino subgroups, especially given the substantial variability in the United States in national origin subgroups (Noe-Bustamante, 2019). We coded percentage of national origin sample participants for the three largest U.S. Hispanic/Latino groups—Mexican, Puerto Rican, and Cuban—but in the family relationship domains there were only enough independent studies to test moderation by Mexican and Puerto Rican origin sample percentages. Our findings suggested that the association between familism and family conflict/negativity was larger when samples included a smaller percentage of Mexican-origin participants, and smaller (but still negative) when samples included a higher percentage of Mexican-origin individuals, more similar to the overall effect ($-.13$). As a large percentage of studies in the conflict/negativity domain (about 88%) included Mexican-origin samples, our meta-analysis may provide an underestimate of this association.

There also was evidence of moderation by Puerto Rican sample percentage for both family warmth/support and conflict/negativity domains, with the caveat that there were no studies where more than half of the sample was of Puerto Rican descent in the conflict/negativity domain. As the percentage of Puerto Rican participants increased in the samples, the negative effect size between familism and conflict/negativity increased and the positive effect between familism and family warmth/support decreased. Given that the largest national origin subgroups in this meta-analysis were of Mexican and Puerto Rican origin, and that (as described above) the association between familism and family conflict was in the reverse direction for percentage of Mexican-origin participants, differences between Mexican and Puerto Rican origin groups may underlie these moderation findings. Notably, when both moderators were in the same model, only Puerto Rican national origin was significant, further suggesting these two moderators may be confounded. Although several studies emphasize the importance of familism values for both Mexican origin and Puerto Rican individuals (Steidal & Contreras, 2003; Sabogal et al., 1987; Knight et al., 2010), little is known about potential variation in how these values are associated with family relationship dynamics (e.g., Calzada et al., 2012). Our findings suggest that, at least for family conflict/negativity, associations with familism may be stronger when studies include more Puerto Rican and fewer Mexican origin participants.

There are numerous explanations for the possibility that the association between familism values and conflict differs for Puerto Rican versus Mexican origin individuals. One possibility is that structural and resource differences between these two national origin groups (Sarkisian et al., 2006) may underlie the different associations between familism and family relationships. If Puerto Rican individuals in the studies sampled, for example, lived in closer proximity to family, provided more frequent assistance to family members, and had more limited financial resources, relative to Mexican origin individuals in the studies sampled, then strong familism values may have been linked to more conflict due to the increased opportunities for such conflicts to arise. Another possibility is that Puerto Rican and Mexican origin samples differed in

geographic locations (e.g., dense or sparse in the presence of their national origin group) that may have implications for the degree to which they relied on family members when they endorsed strong familism values, again providing more opportunities for conflict among family members. More generally, differences among Hispanic/Latino national origin groups in the United States in their immigration history, citizenship opportunities, educational and economic resources, and locations where they are most likely to reside (Baca Zinn & Wells, 2000; Fuller & Garcia Coll, 2010; Noe-Bustamante, 2019), suggest the need to consider multiple factors that may moderate differences in how familism values are related to family relationships across these different subgroups.

Familism and Internalizing Symptoms

Familism values also are theorized to reduce risk for internalizing symptoms (Valdivieso-Mora et al., 2016), possibly due to the benefits of strong and supportive family networks (Zeiders et al., 2013). Our effect size was smaller in magnitude than the effect sizes reported by Valdivieso-Mora et al. (2016) for depression and internalizing behaviors, but in both meta-analyses the effect sizes were small in magnitude per Cohen's (1992) conventions. The association between familism and internalizing outcomes did not differ by gender, national origin, or nativity of target participants/caregivers, suggesting that these aspects of sample variation did not strengthen or weaken the small effect between familism and internalizing outcomes.

Although all associations were small in magnitude across all developmental periods, the link between familism and internalizing outcomes was larger in early adolescence ($-.15$) as compared with late adolescence ($-.11$) and adulthood ($-.02$), but not enough samples were available to include childhood in these comparisons. As early adolescence is a time when youth become more active in their own cultural development and begin to internalize cultural values (Knight et al., 2009), their endorsement of familism values may hold particular significance for their adjustment. Further, as early adolescence is a time of increased risk in internalizing outcomes (Zahn-Waxler et al., 2008; Zeiders et al., 2013), familism values may be important to consider as a source of risk reduction via the benefits of strong family and social support networks (Updegraff et al., 2012).

Internalizing symptoms was the only domain in which geographic location, specifically living in an established versus new/emerging state in the United States for Hispanic/Latino populations, was a significant source of moderation. We found that effect sizes were larger in magnitude in the negative direction between familism and internalizing symptoms for Hispanic/Latino samples living in the emerging/new ($-.21$) versus established Hispanic/Latino states ($-.10$), as compared with the overall effect ($-.12$). Established Hispanic/Latino destinations are typically characterized by stronger institutional and infrastructural support for Hispanic/Latino individuals (Stamps & Bohon, 2006), whereas in new immigrant destinations individuals may have to rely more strongly on family supports (Spees et al., 2017) and informal networks, strengthening the association between familism and internalizing symptoms, owing to the potentially inhibitive features of new immigrant destinations. Lower endorsement of familism values also may be a cultural risk factor for the development of internalizing symptoms in regions with high concentration of Hispanic/Latino individuals because challenging cultural norms can have

higher social costs in communities where there are more members to enforce compliance compared with those with lower concentration of Hispanic/Latino populations. Future studies should examine *how* different geographic regions and contextual characteristics (e.g., availability of mental health, educational, and institutional resources) may operate as promoting or inhibiting contexts, and thus, alter the associations between familism and internalizing outcomes.

Externalizing Outcomes

The overall effect linking familism to externalizing outcomes was small and significant in the expected negative direction. These modest findings align with the theoretical notion that strong endorsement of familism may encourage one to behave in ways that brings honor to the family and foster adherence to family and social norms, and thus, avoid behaviors that would reflect poorly on the family (e.g., deviant behaviors and affiliations; Germán et al., 2009; Gonzales et al., 2009). Our findings are in contrast to Valdivieso-Mora et al. (2016), where no significant effect was documented between familism and externalizing behaviors (or substance use). This may be due to the more expansive and inclusive approach of our systematic review and meta-analysis in the search terms, measures of externalizing outcomes, developmental periods, and time frame (i.e., studies were not limited to a single decade). Although data on direction of effects are limited, one longitudinal study examined bidirectional associations between adolescents' familism values and externalizing behaviors and found that familism reduced future engagement in risky behaviors five years later (spanning early to late adolescence) among Mexican origin adolescents, but that the externalizing symptoms did not predict future familism values (Updegraff et al., 2012). Further, it was in the externalizing domain that the largest percentage of records included prospective effect sizes, strengthening our confidence in these findings.

Aligned with predictions based on the immigrant paradox (Gonzales et al., 2009; Updegraff et al., 2012), as the percentage of individuals born outside of the United States increased across samples, the negative association between familism and externalizing outcomes increased. This same pattern emerged for *both* target participants' ($-.07$ to $-.25$) and parents'/caregivers' nativity status ($.06$ to $-.11$). The confidence intervals for parents'/caregivers' nativity status implied effects all included zero, however, suggesting caution in interpreting these findings. Generally, the moderation findings are consistent with the premise that strong familism values may be particularly beneficial for immigrant individuals who maintain strong ties to the ethnic culture and collectively endorse these values (Gonzales et al., 2009), and with the importance of attending to sources of within group variation among Hispanic/Latino populations (Valdivieso-Mora et al., 2016). A final source of moderation was the type of externalizing measure, with a significant difference in the association between familism and externalizing outcomes ($-.10$) relative to deviant peer affiliations ($-.07$), but both were small in magnitude like the overall effect ($-.10$). It is possible that potential mechanisms linking familism to externalizing outcomes, including that individuals with strong familism values may be more motivated to behave in ways that reflect positively on their family (Germán et al., 2009; Gonzales et al., 2009), are more closely associated with indicators of individuals' *own* behaviors as opposed to those of their peers. Also a

potential factor here is the associations between one's own and their peers' behaviors, as there is evidence that strong familism values (in adolescence) may reduce the significant positive associations between deviant peer affiliations and adolescents' externalizing symptoms (Germán et al., 2009).

Variations Across Domains and Person (Sample) and Contextual Characteristics

This systematic review and meta-analysis provided a novel test of the sources of heterogeneity across the different domains of adjustment/family relationship quality. These considerations are based on the notion of adaptive culture, such that familism values may be associated with benefits, costs, or both depending on a complex set of factors, including outcomes under consideration, developmental timing, and individual and contextual factors (Caldaza et al., 2012; Stein et al., 2014; White et al., 2018). In this section, we highlight themes and patterns with regard to developmental period, nativity, and national origin that emerged from considering the findings across these different domains.

With regard to development, findings underscored *early* adolescence as a salient period for the links between familism and two domains of adjustment. That is, the effect sizes were larger in magnitude between familism and both internalizing and educational outcomes in early versus late adolescence. As early adolescence is when youth begin to develop their own value system (Knight et al., 2009), these values may be important correlates of adjustment to the degree that they may motivate youth to invest and engage in their educations as a way to honor and respect their family. These potential benefits of familism may serve as promotive mechanisms during a period of substantial educational transitions (e.g., the transition to junior high) that can be challenging for youth to navigate (Benner & Graham, 2009). These findings point to the potential benefits of prevention programs in *early* adolescence that can capitalize on Hispanic/Latino youth's strong familism values, and their associations with supportive family relationships, with the possibility of enhancing a successful transition into and through adolescence.

In adulthood, the strongest association was between familism and family conflict/negativity, such that it was medium in size in middle adulthood ($-.40$) and differed significantly from the smaller effects in young adulthood ($-.15$) and late adolescence ($-.08$). Such effects may be most pronounced in adulthood because individuals have moved beyond the changes of adolescence and the young adult transition (seeking autonomy, establishing their identity), and into a developmental period when family relationships are central sources of support (Landale et al., 2006). Further, to the degree that familism values stabilize in adulthood (Padilla et al., 2016), they may be important in navigating family relationships in a way that potentially minimizes conflict and negativity. Altogether, examining the developmental variation across different domains of adjustment can provide a more nuanced understanding of how familism may be a source of promotion or risk at different points in the life span. Future research is needed to more clearly delineate how the magnitude of the associations between familism values and adjustment/family relationships may change across the life span. In some domains, we were able to compare effect sizes from childhood through adulthood, whereas other domains we lacked enough independent studies to make comparisons across all developmental periods.

National origin as a source of variability was specific to the *family relationship* domains, but comparisons were only possible for sample participation of Mexican origin and Puerto Rican individuals, as there were not enough independent studies of familism and family relationship quality among Cuban origin individuals to test moderation. Findings suggest that the associations between familism values and family relationship quality may differ by Hispanic/Latino national origin (Mexican, Puerto Rican), and further, it is also possible that there may be more differences *within* cultural groups than between (Causadias et al., 2018). Future research should investigate the cultural similarities and differences in the associations between familism and family relationship qualities in different Latino subgroups (e.g., Calzada et al., 2012).

Examining the role of *nativity* across different domains contributes to research on the immigrant paradox. Along these lines, we found evidence consistent with this paradox in two of the domains we examined: educational outcomes and externalizing symptoms. Underlying the immigrant paradox is the notion that some of the advantages of immigrant-born individuals and families come from their strong endorsement of family and cultural values (Fuller & García Coll, 2010; Gonzales et al., 2009; Updegraff et al., 2012). It may not be surprising that the two domains where the immigrant paradox predictions were supported included potentially *observable* behaviors that reflect how familism values may manifest themselves, including in individuals' efforts to invest in their education as a way to acknowledge family sacrifices (Cebello, 2004) and in their behaviors that reflect positively on the family, in part by avoiding deviant, antisocial, and aggressive acts that would dishonor the family (Gonzales et al., 2009; Updegraff et al., 2012). As the pursuit of better educational opportunities for their children is an often-cited reason for immigration to the United States (Suárez-Orozco & Suárez-Orozco, 1995; Hagelskamp et al., 2010), individuals may receive clear messages that familism values imply doing one's best to advance educationally and avoiding behaviors that would detour one's success.

Methodological Sources of Heterogeneity

Another contribution of a meta-analytic approach is the opportunity to examine variation by methodological characteristics (Card, 2012). It is noteworthy that across all domains examined and multiple tests of publication bias, we did not find clear evidence that published effect sizes differed from unpublished effects (i.e., unpublished dissertations). We did find, however, that study design, year of record, and measurement (familism and adjustment measure) contributed to variability in the effect sizes examined in this meta-analysis. Overall, our findings suggested that different methodological characteristics explained variation in effect sizes in different domains of adjustment.

The measure of familism was a source of heterogeneity in the domains of internalizing outcomes and family relationship warmth/support. For family warmth/support, the effect size (.36) was larger among studies that used the Fuligni et al. (1999) measure as compared with the Knight et al. (2010) measure (.20). As the Fuligni et al. (1999) measure includes many items that assess values that are likely to lead to supportive relationships among family members, such as spending time together, helping siblings and grandparents, and sharing in enjoyable activities like meals and holiday celebrations, this may explain the stronger association relative to the Knight et al. (2010) measure. Further, the effect size for internalizing (−.29)

was larger (negative) for studies using the measure developed by Gil and Vega (1996; Gil et al., 2000) versus the effect (−.08) for the measure developed by Knight et al. (2010). Again, the different items may explain this differential association, as Gil and Vega's measure (Gil & Vega, 1996; Gil et al., 2000) taps into aspects of familism that may be most salient in reducing risk for internalizing outcomes. Specifically, this measure includes items regarding trusting and confiding in family, expressing one's feelings, and being proud, loyal, and respectful of family members, and was originally derived from the family circumplex model (Olson et al., 1983). Knight et al. (2010), in contrast, include fewer items that directly assess values regarding emotional supports from family members, possibly contributing to the smaller effect. As such, differences in the strength of the associations may be a function of what each measure of familism is tapping. Overall, we found limited evidence for variability as a function of familism measure among the five most commonly used measures in the studies included in this systematic review and meta-analysis. Although there is some variability across measures in the subscales included, most studies aggregate all items into a summary score to test familism-adjustment/relationship quality linkages, which may reduce the likelihood of detecting measurement differences.

Study design was tested as a source of variability in all domains, but only was significant for educational outcomes. Effect sizes were greater in magnitude for cross-sectional (.16) as compared with prospective effects (.09). This suggests that familism values have stronger links to concurrent as compared with future assessments of educational outcomes, although both effects were small in magnitude (i.e., < .20). Of note, many of the cross-sectional effect sizes came from the early adolescent developmental period versus the prospective effect sizes, which were more likely to span across adolescence or from adolescence to emerging adulthood. Across adolescence and into adulthood, youth (particularly those from immigrant backgrounds) may become more cognizant of constraints on their future educational opportunities (Updegraff et al., 2012) and thus be less likely to strive for or expect educational outcomes that align with their familism values. It is also possible that familism values are more strongly associated with current rather than future educational outcomes, and that current educational outcomes, in turn, shape future trajectories of educational opportunities. From a methodological standpoint, it is necessary to consider the challenges of retaining Latino participants over time, particularly given unique changes that come with high mobility, socioeconomic adversity, undocumented status, and distrust toward scientists (Knight et al., 2009). Thus, some of the effect size differences may have to do with factors associated with sample attrition in prospective associations.

Finally, year of record publication was a moderator in three domains, specifically educational, family conflict/negativity, and externalizing outcomes. The effect sizes were larger in magnitude in more recent years for both educational outcomes (2000 to 2020: .05 to .25) and externalizing symptoms (2000 to 2020: −.05 to −.14). Whereas, the effect sizes were smaller in magnitude for family conflict/negativity (−.19 in 2000 vs. −.07 in 2020), however the confidence interval for the effect at year 2020 included zero. When included with other significant moderators, year of record remained significant only in the family conflict/negativity domain. A close examination of the records in earlier versus later years suggests that more recent studies included a variety of measures of family conflict/negativity (e.g., sibling and parent conflict,

sibling and parent control, negativity, harsh discipline), and perhaps the smaller effect sizes may be due to variability across these different constructs. It was not possible to test the measure of family conflict/negativity in our moderation analyses because there were less than three independent studies with distinct dimensions of family conflict/negativity measured. Thus, exploring this source of variability is an important direction of future research. Other possible explanations were that three of the studies that contributed the largest amount of records (and thus most of the effect sizes) were based on data collected within the past 2 decades.

Limitations and Future Directions

Beyond those already noted, this study has a number of limitations that can provide directions for future research. First, we focused on *attitudinal* familism, and all studies used surveys or questionnaires to measure familism. A potential next step is to meta-analyze the associations between familism *behaviors* and adjustment, which may mediate some of the associations between familism values and individual adjustment/family relationship quality (Valdivieso-Mora et al., 2016). Second, very few studies of familism were identified that included samples of individuals living outside of the U.S. This may be, in part, because we limited our search to articles published in English, used search terms in English, and databases that primarily included English language articles. As such, we were unable to examine whether findings linking familism to adjustment/family relationship quality were similar or different in Spain and Latin America relative to the United States. Expanding searches to include articles published in other languages and countries will be important in understanding how familism values work in different sociocultural contexts in future research.

Third, effect sizes were largely cross-sectional, and the direction of effect cannot be determined. The availability of longitudinal designs varied across domain, with the highest percentage in the externalizing the domain, and the lowest percentage in the internalizing domain. Regardless, the field is in need of more longitudinal work to examine directions of effects and reciprocal and bidirectional associations. These findings can be used, in turn, to inform experimental designs to test whether targeting familism values leads to improvements in individual adjustment and/or family relationships. As an illustration, Covarrubias et al. (2016) employed an experimental design to test whether priming students with a familial versus independent orientation was related to academic outcomes. For Latino college students, those in the family-oriented condition scored higher on the academic task than those assigned to the independent condition (Covarrubias et al., 2016). Additional research using experimental designs can further our understanding of causal links between attitudinal familism and adjustment/family relationship quality. Ultimately, this work can inform the development of prevention and intervention programs that are consistent with Hispanic/Latino familism values and promote positive family relationships and individual adjustment.

Fourth, there were a number of potential important sources of heterogeneity that we were unable to code, including social and cultural factors (e.g., primary language spoken) and indicators of socioeconomic status. For some of these social and cultural characteristics, the information was not reported in a substantial number of studies resulting in a large amount of missing data. In

addition to missing data, for socioeconomic status, many different indices were used making comparability across studies difficult. For example, some studies reported the median income of the sample, other studies reported average income, some studies reported income in ranges (e.g., the majority of the sample earned less than \$20,000 per year), and sometimes samples were characterized by labels, such as “low income.” In other studies, income was not reported, and instead, education was considered the indicator of socioeconomic resources. Again, there was substantial variability in reporting on education, including participants’ average education level, the percentage of the sample that earned a high school degree, or the highest grade completed. Given the many different ways that samples were characterized in terms of education and income in combination with the substantial number of studies where no indicators of socioeconomic status were reported, it was not possible to examine socioeconomic status as a source of heterogeneity. This limitation is not specific to research on familism but also has been documented in other domains of psychological research (Korous et al., 2018, 2020). In future work, ideally income, educational, and occupational indexes are included to describe the socioeconomic backgrounds of study participants (Cowan et al., 2012; Diemer et al., 2013). Of the studies reviewed in this meta-analysis, occupational indicators were reported far less often than those focused on education and income. With regard to specific indicators, educational attainment is advantageous in that, in the case of school-based youth samples, youth are more likely to know their parents’ highest level of education, and less likely to be able to accurately report on their household’s economic resources, such as income (Diemer et al., 2013). Providing, at minimum, both educational attainment and indices of economic resources (e.g., income, poverty status, debt-to-asset ratio) will allow researchers to characterize the socioeconomic backgrounds of studies included in meta-analyses and test moderation by socioeconomic status.

Fifth, the majority of studies examined the relation between familism and adjustment as a *linear* relationship. It will important to consider in future research whether there are curvilinear associations between familism and adjustment/relationship quality. Along these lines, Calzada et al. (2014) proposed that familism may be beneficial to a point, but under conditions of very high familism, there may be costs (e.g., in the resulting conflicts between family and school demands). Finally, our study did not measure individual level characteristics or their interactions with context-level variables, a limitation of the aggregate data approach to meta-analyses (Cooper & Patall, 2009). Being born outside of the United States, for example, may have different implications for effect sizes between familism and adjustment when samples are situated in established versus new immigrant communities or in communities that differ in the degree of immigrant concentration (e.g., high vs. low percentage). Such questions may be better addressed by aggregating at the individual participant level, rather than the sample level, and including measures of participant characteristics and their contexts to test for such interactions (Cooper & Patall, 2009). This is important to avoid the ecological fallacy in multilevel studies, an invalid form of reasoning in which inferences about individuals are drawn from group-level data (Diez-Roux, 1998). Indeed, the findings of this meta-analysis may or may not apply to individuals within the groups studied.

Conclusion

Despite the limitations, this systematic review and meta-analysis makes original contributions to the field by quantifying the link between attitudinal familism and adjustment/family relationship quality in four domains among Hispanic/Latino samples. Framed within the integrative model (García Coll et al., 1996; White et al., 2018) and cultural developmental (Causadias, 2013) and bioecological frameworks (Bronfenbrenner & Morris, 2006), this study aimed to advance our understanding of the conditions under which familism values may be associated with adaptive or maladaptive adjustment and family relationship dynamics. Indeed, these findings illustrate how familism values may be associated with healthy development and adaptation, a valuable lesson we can learn from Hispanics/Latinos (Fuller & García Coll, 2010). Our findings also offer some initial directions of intervention and research when considered holistically. Looking across the life span, our findings suggest that strong familism values may be more salient for educational outcomes and internalizing outcomes in adolescence, and particularly early adolescence, a key period of transition when strong family-oriented values and supports may be particularly beneficial to youth. In contrast, the role of familism values in mitigating family conflict and stress may be important to target in adulthood when family is a key source of social support as individuals manage aging and health problems (Perez & Cruess, 2014). Context also matters: Efforts to prevent internalizing problems may yield the greatest benefits in U.S. regions designated as new immigrant destinations where the absence of institutional infrastructures for Hispanic/Latino families means that family and informal support networks are critical for their mental health. As we strive to improve our understanding of the largest ethnic-racial minority group in the United States, we must continue to pursue questions of the specific factors (individual, contextual) that alter the benefits or risks of cultural mechanisms at different points in the life span and increase longitudinal efforts to capture such processes across time.

References

References marked with an asterisk indicate studies included in the meta-analysis.

- Adams, M., Coltrane, S., & Parke, R. D. (2007). Cross-ethnic applicability of the gender-based attitudes toward marriage and child rearing scales. *Sex Roles, 56*(5), 325–339.
- Alvarez, C. H., & Norton-Smith, K. G. (2018). Latino destinations and environmental inequality: Estimated cancer risk from air toxics in Latino traditional and new destinations. *Socius: Sociological Research for a Dynamic World, 4*, 2378023118796931. <https://doi.org/10.1177/2378023118796931>
- *Aretakis, M. T., Ceballos, R., Suarez, G. A., & Camacho, T. C. (2015). Investigating the Immigrant Paradox and Latino Adolescents' Academic Attitudes. *Journal of Latina/o Psychology, 3*, 56–69. <https://doi.org/10.1037/lat0000031>
- *Aretakis, M. T. (2011). *Immigration, Acculturation, and Academic Attitudes and Performance Among Latino Adolescents* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3476774)
- *Arora, P. G., & Wheeler, L. A. (2017). Depressive symptoms in Mexican-origin adolescents: Interrelations between school and family contexts. *Contemporary School Psychology, 22*, 266–278. <https://doi.org/10.1007/s40688-017-0150-1>

- Azmitia, A., & Brown, J. R. (2002). Latino immigrant parents' beliefs about the "path of life" of their adolescent children. In J. M. Contreras, K. A. Kerns, & A. M. Neal-Barnett (Eds.), *Latino children and families in the United States* (pp. 77–106). Praeger Press.
- Baca Zinn, M., & Wells, B. (2000). Diversity within Latino families: New lessons for family social science. In D. H. Demo, K. R. Allen, & M. A. Fine (Eds.), *Handbook of family diversity* (pp. 252–273). Oxford University Press.
- *Barnett, M. A., Mortensen, J. A., Gonzalez, H., & Gonzalez, J.-M. (2016). Cultural factors moderating links between neighborhood disadvantage and parenting and co-parenting among Mexican origin families. *Child and Youth Care Forum, 45*, 927–945. <https://doi.org/10.1007/s10566-016-9365-y>
- *Baumann, A. A., Kuhlberg, J. A., & Zayas, L. H. (2010). Familism, mother-daughter mutuality, and suicide attempts of adolescent Latinas. *Journal of Family Psychology, 24*(5), 616–624. <https://doi.org/10.1037/a0020584>
- Benner, A. D., & Graham, S. (2013). The antecedents and consequences of racial/ethnic discrimination during adolescence: Does the source of discrimination matter? *Developmental Psychology, 49*(8), 1602–1613. <https://doi.org/10.1037/a0030557>
- Benner, A. D., & Graham, S. (2009). The transition to high school as a developmental process among multiethnic urban youth. *Child Development, 80*, 356–376. <https://doi.org/10.1111/j.1467-8624.2009.01265.x>
- Bögels, S. M., & Brechman-Toussaint, M. L. (2006). Family issues in child anxiety: Attachment, family functioning, parental rearing and beliefs. *Clinical Psychology Review, 26*(7), 834–856. <https://doi.org/10.1016/j.cpr.2005.08.001>
- Borenstein, M., Higgins, J. P., Hedges, L. V., & Rothstein, H. R. (2017). Basics of meta-analysis: I^2 is not an absolute measure of heterogeneity. *Research Synthesis Methods, 8*(1), 5–18. <https://doi.org/10.1002/jrsm.1230>
- *Bostean, G. (2012). *Health Outcomes of U.S. Latino Immigrants: Selection, Protection and Family Context* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3457514)
- *Bravo, D. Y. (2016). *A cultural perspective of achievement motivation among Mexican-origin adolescent mothers* (Doctoral dissertation). https://repository.asu.edu/attachments/175087/content/Bravo_asu_0010E_16378.pdf
- *Bravo, D. Y., Umaña-Taylor, A. J., Guimond, A. B., Updegraff, K. A., & Jahromi, L. B. (2014). Familism, family ethnic socialization, and Mexican-origin adolescent mothers' educational adjustment. *Cultural Diversity & Ethnic Minority Psychology, 20*, 389–400. <https://doi.org/10.1037/a0036527>
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology, Vol. 1: Theoretical models of human development* (6th ed., pp. 793–828). Wiley.
- Budiman, A. (2020). Key findings about U.S. immigrants. <https://www.pewresearch.org/fact-tank/2020/08/20/key-findings-about-u-s-immigrants/>.
- *Burrow-Sánchez, J. J., Ortiz-Jensen, C., Corrales, C., & Meyers, K. (2015). Acculturation in a Pretreatment Sample of Latino Adolescents. *Hispanic Journal of Behavioral Sciences, 37*, 103–117. <https://doi.org/10.1177/0739986314560148>
- *Bush, K. R., Supple, A. J., & Lash, S. B. (2005). Mexican adolescents' perceptions of parental behaviors and authority as predictors of their self-esteem and sense of familism. *Parent-Youth Relations: Cultural and Cross-Cultural Perspectives, 209–237*. <https://doi.org/10.4324/9780203725733-12>
- *Calzada, E. J., Huang, K.-Y., Linares-Torres, H., Singh, S. D., & Brotman, L. (2014). Maternal Familismo and early childhood functioning in Mexican and Dominican immigrant families. *Journal of Latina/o Psychology, 2*, 156–171. <https://doi.org/10.1037/lat0000021>
- Calzada, E. J., Tamis-LeMonda, C. S., & Yoshikawa, H. (2012). Familismo in Mexican and Dominican families from low-income, urban

- communities. *Journal of Family Issues*, 34, 1696–1724. <https://doi.org/10.1177/0192513X12460218>
- Campos, B., Schetter, C. D., Abdou, C. M., Hobel, C. J., Glynn, L. M., & Sandman, C. A. (2008). Familialism, social support, and stress: Positive implications for pregnant Latinas. *Cultural Diversity & Ethnic Minority Psychology*, 14, 155–162. <https://doi.org/10.1037/1099-9809.14.2.155>
- *Campos, B., Ullman, J. B., Aguilera, A., & Dunkel Schetter, C. (2014). Familism and psychological health: The intervening role of closeness and social support. *Cultural Diversity & Ethnic Minority Psychology*, 20, 191–201. <https://doi.org/10.1037/a0034094>
- Card, N. A. (2012). *Applied meta-analysis for social science research: Methodology in the social sciences*. Guilford Press.
- Cauce, A. M., & Domenech-Rodríguez, M. (2002). Latino families: Myths and realities. In J. M. Contreras, K. A. Kerns, & A. M. Neal-Barnett (Eds.), *Latino children and families in the United States* (pp. 5–25). Praeger Press.
- Causadias, J. M. (2013). A roadmap for the integration of culture into developmental psychopathology. *Development and Psychopathology*, 25(4pt2), 1375–1398. <https://doi.org/10.1017/S0954579413000679>
- Causadias, J. M., & Cicchetti, D. (2018). Cultural development and psychopathology. *Development and Psychopathology*, 30, 1549–1555. <https://doi.org/10.1017/S0954579418001220>
- Causadias, J. M., Korous, K. M., & Cahill, K. M. (2018). Are Whites and minorities more similar than different? Testing the cultural similarities hypothesis on psychopathology with a second-order meta-analysis. *Development and Psychopathology*, 30(5), 2009–2027. <https://doi.org/10.1017/S0954579418000895>
- *Cavanaugh, A. M., Stein, G. L., Supple, A. J., Gonzalez, L. M., & Kiang, L. (2018). Protective and promotive effects of Latino early adolescents' cultural assets against multiple types of discrimination. *Journal of Research on Adolescence*, 28(2), 310–326. <https://doi.org/10.1111/jora.12331>
- Ceballos, R. (2004). From Barrios to Yale: The role of parenting strategies in Latino families. *Hispanic Journal of Behavioral Sciences*, 26(2), 171–186. <https://doi.org/10.1177/0739986304264572>
- Chandler, J., Cumpston, M., Thomas, J., Higgins, J. P. T., Deeks, J. J., & Clarke, M. J. (2020). Chap. I: Introduction. In J. P. T. Higgins, J. Thomas, J. Chandler, M. Cumpston, T. Li, M. Page, & V. Welch (Eds.), *Cochrane Handbook for Systematic Reviews of Interventions* version 6.1 (updated September 2020). Cochrane. www.training.cochrane.org/handbook
- *Chavez Duenas, N. Y. (2009). *The relationship between acculturation parenting style and parental adherence to traditional cultural values among Padres Mexicanos* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3320307)
- *Chavez-Korell, S., Benson-Flórez, G., Rendón, A. D., & Farías, R. (2013). Examining the relationships between physical functioning, ethnic identity, acculturation, familismo, and depressive symptoms for Latino older adults. *The Counseling Psychologist*, 42(2), 255–277. <https://doi.org/10.1177/0011000013477906>
- *Cheng, H.-L., Hitter, T. L., Adams, E. M., & Williams, C. (2016). Minority stress and depressive symptoms. *The Counseling Psychologist*, 44, 841–870. <https://doi.org/10.1177/0011000016660377>
- Cheung, M. W.-L. (2014). Modeling dependent effect sizes with three-level meta-analyses: A structural equation modeling approach. *Psychological Methods*, 19(2), 211–229. <https://doi.org/10.1037/a0032968>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Conger, D., & Atwell, M. S. (2012). Immigrant gateway communities: Does immigrant student achievement vary by location? In C. G. Coll & A. K. Marks (Eds.), *The immigrant paradox in children and adolescents: Is becoming American a developmental risk?* (pp. 233–252). American Psychological Association. <https://doi.org/10.1037/13094-010>
- Cooper, H., & Patall, E. A. (2009). The relative benefits of meta-analysis conducted with individual participant data versus aggregated data. *Psychological Methods*, 14(2), 165–176. <https://doi.org/10.1037/a0015565>
- *Corona, K., Campos, B., & Chen, C. (2016). Familism is associated with psychological well-being and physical health: Main effects and stress-buffering effects. *Hispanic Journal of Behavioral Sciences*, 39(1), 46–65. <https://doi.org/10.1177/0739986316671297>
- *Corona, R., Rodríguez, V. M., McDonald, S. E., Velazquez, E., Rodríguez, A., & Fuentes, V. E. (2017). Associations between cultural stressors, cultural values, and Latina/o college students' mental health. *Journal of Youth and Adolescence*, 46, 63–77. <https://doi.org/10.1007/s10964-016-0600-5>
- Covarrubias, R., Herrmann, S. D., & Fryberg, S. A. (2016). Affirming the interdependent self: Implications for Latino student performance. *Basic and Applied Social Psychology*, 38(1), 47–57. <https://doi.org/10.1080/01973533.2015.1129609>
- Cowan, C. D., Hauser, R. M., Kominski, R. A., Levin, H. M., Lucas, S. R., Morgan, S. L., & Chapman, C. (2012). *Improving the measurement of socioeconomic status for the national assessment of educational progress: A theoretical foundation*. National Center for Education Statistics. https://nces.ed.gov/nationsreportcard/pdf/researchcenter/socioeconomic_factors.pdf
- Cruz, R. A., Navarro, C., Carrera, K., Lara, J., Mechammil, M., & Robins, R. W. (2019). Mexican-origin youths' trajectories of internalizing symptoms from childhood into adolescence and associations with acculturation processes. *Journal of Clinical Child & Adolescent Psychology*, 50(1), 118–130. <https://doi.org/10.1080/15374416.2019.1622120>
- *Cupito, A. M., Stein, G. L., & Gonzalez, L. M. (2015). Familial cultural values, depressive symptoms, school belonging and grades in Latino adolescents: Does gender matter? *Journal of Child and Family Studies*, 24(6), 1638–1649. <https://doi.org/10.1007/s10826-014-9967-7>
- *Cupito, A. M., Stein, G. L., Gonzalez, L. M., & Supple, A. J. (2016). Familism and Latino adolescent depressive symptoms: The role of maternal warmth and support and school support. *Cultural Diversity & Ethnic Minority Psychology*, 22, 517–523. <https://doi.org/10.1037/cdp0000097>
- *Davidson, A. J., Updegraff, K. A., & McHale, S. M. (2011). Parent/peer relationship patterns among Mexican-origin adolescents. *International Journal of Behavioral Development*, 35(3), 260–270. <https://doi.org/10.1177/0165025410384926>
- *De Santis, J. P., Gonzalez-Guarda, R. M., & Vasquez, E. P. (2012). Psychosocial and cultural correlates of depression among Hispanic men with HIV infection: A pilot study. *Journal of Psychiatric and Mental Health Nursing*, 19, 860–869. <https://doi.org/10.1111/j.1365-2850.2011.01865.x>
- *De Santis, J. P., Provencio-Vasquez, E., Mancera, B., & Mata, H. J. (2016). Health risk and protective factors among Hispanic women living in the U.S.-Mexico border region. *Hispanic Health Care International; the Official Journal of the National Association of Hispanic Nurses*, 14, 17–25. <https://doi.org/10.1177/1540415316629679>
- *Delgado, M. Y. (2009). *Perceived discrimination and adjustment of Mexican-Origin youth: An examination of the moderating roles of cultural orientation and values* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3357260)
- *Delgado, M. Y., Updegraff, K. A., Roosa, M. W., & Umaña-Taylor, A. J. (2011). Discrimination and Mexican-origin adolescents' adjustment: The moderating roles of adolescents', mothers', and fathers' cultural orientations and values. *Journal of Youth and Adolescence*, 40, 125–139. <https://doi.org/10.1007/s10964-009-9467-z>
- *Diaz, P. (2011). *Perceived group discrimination and problem behavior: The moderating role of traditional cultural values and familial relationships in Mexican American adolescents* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3466284)

- Diemer, M. A., Mistry, R. S., Wadsworth, M. E., López, I., & Reimers, F. (2013). Best practices in conceptualizing and measuring social class in psychological research. *Analyses of Social Issues and Public Policy (ASAP)*, 13, 77–113. <https://doi.org/10.1111/asap.12001>
- Diez-Roux, A. V. (1998). Bringing context back into epidemiology: Variables and fallacies in multilevel analysis. *American Journal of Public Health*, 88(2), 216–222. <https://doi.org/10.2105/AJPH.88.2.216>
- *Donovick, M. R. (2011). *Parenting practices and child mental health among Spanish-speaking Latino families: Examining the role of parental cultural values* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3423994)
- *East, P. L., & Chien, N. C. (2010). Family dynamics across pregnant Latina adolescents' transition to parenthood. *Journal of Family Psychology*, 24, 709–720. <https://doi.org/10.1037/a0021688>
- *East, P. L., & Weisner, T. S. (2009). Mexican American adolescents' family caregiving: Selection effects and longitudinal associations with adjustment. *Family Relations*, 58(5), 562–577. <https://doi.org/10.1111/j.1741-3729.2009.00575.x>
- *Elliott, K. A. G. (2001). *The relationship between acculturation, family functioning, and school performance of Mexican American adolescents* (Doctoral dissertation). Bell & Howell Information and Learning Company. (UMI No. 3016382)
- *Esparza, P., & Sánchez, B. (2008). The role of attitudinal familism in academic outcomes: A study of urban, Latino high school seniors. *Cultural Diversity & Ethnic Minority Psychology*, 14, 193–200. <https://doi.org/10.1037/1099-9809.14.3.193>
- *Fallah, N. (2014). *Familial, academic, and interpersonal predictors of attributional style in Latino youth* (Doctoral dissertation). ProQuest Dissertations and Theses. (MI No. 3673043)
- *Ferrari, A. M. (1999). *Child rearing practices and definitions of child maltreatment: How they vary according to cultural attitudes and values* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 9926902)
- Fulgini, A. J., & Pedersen, S. (2002). Family obligation and the transition to young adulthood. *Developmental Psychology*, 38, 856–868. <https://doi.org/10.1037/0012-1649.38.5.856>
- Fulgini, A. J. (2001). Family obligation and the academic motivation of adolescents from Asian and Latin American, and European backgrounds. In A. J. Fulgini (Ed.), *Family obligation and assistance during adolescence: Contextual variations and developmental implications* (pp. 61–76). Jossey-Bass. <https://doi.org/10.1002/cd.31>
- Fulgini, A. J., Tseng, V., & Lam, M. (1999). Attitudes toward family obligations among American adolescents from Asian, Latin American, and European backgrounds. *Child Development*, 70, 1030–1044. <https://doi.org/10.1111/1467-8624.00075>
- *Fuller-Iglesias, H. R., & Antonucci, T. C. (2016). Familism, social network characteristics, and well-being among older adults in Mexico. *Journal of Cross-Cultural Gerontology*, 31, 1–17. <https://doi.org/10.1007/s10823-015-9278-5>
- Fuller, B., & García Coll, C. (2010). Learning from Latinos: Contexts, families, and child development in motion. *Developmental Psychology*, 46(3), 559–565. <https://doi.org/10.1037/a0019412>
- Funder, D. C., & Ozer, D. J. (2019). Evaluating effect size in psychological research: Sense and nonsense. *Advances in Methods and Practices in Psychological Science*, 2, 156–168. <https://doi.org/10.1177/2515245919847202>
- Gallo, L. C., Penedo, F. J., Espinosa de los Monteros, K., & Arguelles, W. (2009). Resiliency in the face of disadvantage: Do Hispanic cultural characteristics protect health outcomes? *Journal of Personality*, 77(6), 1707–1746. <https://doi.org/10.1111/j.1467-6494.2009.00598.x>
- *Gamble, W. C., & Modry-Mandell, K. (2008). Family relations and the adjustment of young children of Mexican descent: Do family cultural values moderate these associations? *Social Development*, 17, 358–379. <https://doi.org/10.1111/j.1467-9507.2007.00429.x>
- *García-Bravo, L. K. (2008). Latino cultural values and marital satisfaction among women of Mexican origin. *PsycEXTRA Dataset*. <https://doi.org/10.1037/e517182008-001>
- García Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vázquez García, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67, 1891–1914. <https://doi.org/10.2307/1131600>
- García Coll, C. G., & Magnuson, K. (1997). The psychological experience of immigration: A developmental perspective. *Immigration and the Family: Research and Policy on U.S. Immigrants*, 91–131.
- *Garriott, P. O., Raque-Bogdan, T. L., Zoma, L., Mackie-Hernandez, D., & Lavin, K. (2017). Social cognitive predictors of Mexican American high school students' math/science career goals. *Journal of Career Development*, 44, 77–90. <https://doi.org/10.1177/0894845316633860>
- Gaylord-Harden, N. K., Barbarin, O., Tolan, P. H., & Murry, V. M. (2018). Understanding development of African American boys and young men: Moving from risks to positive youth development. *American Psychologist*, 73(6), 753–767. <https://doi.org/10.1037/amp0000300>
- *Germán, M., Gonzales, N. A., & Dumka, L. (2009). Familism values as a protective factor for Mexican-origin adolescents exposed to deviant peers. *The Journal of Early Adolescence*, 29, 16–42. <https://doi.org/10.1177/0272431608324475>
- Gil, A., & Vega, W. (1996). Two different worlds: Acculturation stress and adaptation among Cuban and Nicaraguan families. *Journal of Social and Personal Relationships*, 13, 435–456. <https://doi.org/10.1177/0265407596133008>
- Gil, A. G., Wagner, E. F., & Vega, W. A. (2000). Acculturation, familism and alcohol use among Latino adolescent males: Longitudinal relations. *Journal of Community Psychology*, 28, 443–458. [https://doi.org/10.1002/1520-6629\(200007\)28:4<443::AID-JCOP6>3.0.CO;2-A](https://doi.org/10.1002/1520-6629(200007)28:4<443::AID-JCOP6>3.0.CO;2-A)
- *Gonzalez, H. (2017). *Examining the influence of cultural values on pathways to strengthen responsible fatherhood among Mexican-origin fathers* (Doctoral dissertation). ProQuest Dissertations and Theses. (ProQuest No. 10118299)
- Gonzales, N. A., Fabrett, F., & Knight, G. P. (2009). Acculturation, enculturation, and the psychosocial adaptation of Latino youth. In F. A. Villarruel, G. Carlo, J. M. Grau, M. Azmitia, N. J. Cabrera, & T. J. Chahin (Eds.), *Handbook of U.S. Latino psychology: Developmental and community-based perspectives* (pp. 115–134). Sage.
- Hagelskamp, C., Suárez-Orozco, C., & Hughes, D. (2010). Migrating to opportunities: How family migration motivations shape academic trajectories among newcomer immigrant youth. *Journal of Social Issues*, 66(4), 717–739. <https://doi.org/10.1111/j.1540-4560.2010.01672.x>
- Hedges, L. V., Tipton, E., & Johnson, M. C. (2010). Robust variance estimation in meta-regression with dependent effect size estimates. *Research Synthesis Methods*, 1(1), 39–65. <https://doi.org/10.1002/jrsm.5>
- *Hernández, B., Ramírez García, J. I., & Flynn, M. (2010). The role of familism in the relation between parent-child discord and psychological distress among emerging adults of Mexican descent. *Journal of Family Psychology*, 24, 105–114. <https://doi.org/10.1037/a0019140>
- Higgins, J. P., & Thompson, S. G. (2002). Quantifying heterogeneity in a meta-analysis. *Statistics in Medicine*, 21(11), 1539–1558. <https://doi.org/10.1002/sim.1186>
- Higgins, J. P., Thompson, S. G., Deeks, J. J., & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. *BMJ (Clinical Research Ed.)*, 327(7414), 557–560. <https://doi.org/10.1136/bmj.327.7414.557>
- *Howarter, A. D. (2014). *Socioeconomic status, acculturation, family characteristics, and health behaviors: Testing the reserve capacity model with Hispanic adolescent* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3630881)
- *Hurwich-Reiss, E., & Gudíño, O. G. (2016). Acculturation stress and conduct problems among Latino adolescents: The impact of family factors. *Journal of Latina/o Psychology*, 4(4), 218–231. <https://doi.org/10.1037/lat0000052>

- *Ibanez, G. E. (2002). *Cultural attributes and adaptations that promote positive school values among immigrant Latino adolescents* (Doctoral dissertation). ProQuest Information and Learning Company. (UMI No. 3057027)
- *Jean-Van Hell, R. (2001). *Hispanic college students adjustment: The influence of familism, acculturation and social support* (Doctoral dissertation). Bell & Howell Information and Learning Company. (UMI No. 9995926)
- Kandel, W., & Cromartie, J. (2004). *New Patterns of Hispanic Settlement in Rural America. Rural Development and Research Report 99*. Economic Research Service, US Department of Agriculture. <http://www.ers.usda.gov/publications/rdr-rural-development-research-report/rdr99.aspx>.
- *Kapke, T. L., Grace, M. A., Gerdes, A. C., & Lawton, K. E. (2017). Latino early adolescent mental health: Examining the impact of family functioning, familism, and global self-worth. *Journal of Latina/o Psychology, 5*, 27–44. <https://doi.org/10.1037/lat0000057>
- Keefe, S. E. (1984). Real and ideal extended familism among Mexican Americans and Anglo Americans: On the meaning of close family ties. *Human Organization, 43*, 65–69. <https://doi.org/10.17730/humo.43.1.y5546831728vn6kp>
- *Keeler, A. R., Siegel, J. T., & Alvaro, E. M. (2014). Depression and help seeking among Mexican-Americans: The mediating role of familism. *Journal of Immigrant and Minority Health, 16*, 1225–1231. <https://doi.org/10.1007/s10903-013-9824-6>
- *Kiang, L., & Fuligni, A. J. (2009). Ethnic identity and family processes among adolescents from Latin American, Asian, and European backgrounds. *Journal of Youth and Adolescence, 38*(2), 228–241. <https://doi.org/10.1007/s10964-008-9353-0>
- *Killoren, S. E., Alfaro, E. C., & Kline, G. (2016). Mexican American emerging adults' relationships with siblings and dimensions of familism values. *Personal Relationships, 23*, 234–248. <https://doi.org/10.1111/per.12125>
- *Killoren, S. E., Alfaro, E. C., Lindell, A. K., & Streit, C. (2014). Mexican American college students' communication with their siblings. *Family Relations, 63*, 513–525. <https://doi.org/10.1111/fare.12085>
- *Killoren, S. E., De Jesús, S. A. R., Updegraff, K. A., & Wheeler, L. A. (2017). Sibling relationship quality and Mexican-origin adolescents' and young adults' familism values and adjustment. *International Journal of Behavioral Development, 41*(2), 155–164. <https://doi.org/10.1177/0165025415607084>
- *Killoren, S. E., Wheeler, L. A., Updegraff, K. A., Rodríguez de Jesús, S. A., & McHale, S. M. (2015). Longitudinal associations among parental acceptance, familism values, and sibling intimacy in Mexican-origin families. *Family Process, 54*, 217–231. <https://doi.org/10.1111/famp.12126>
- *Killoren, S. E., Thayer, S. M., & Updegraff, K. A. (2008). Conflict resolution between Mexican origin adolescent siblings. *Journal of Marriage and Family, 70*, 1200–1212. <https://doi.org/10.1111/j.1741-3737.2008.00560.x>
- *Kline, G. C., Killoren, S. E., & Alfaro, E. C. (2016). Perceived parental psychological control, familism values, and Mexican American college students' adjustment. *Cultural Diversity & Ethnic Minority Psychology, 22*, 524–532. <https://doi.org/10.1037/cdp0000096>
- Konstantopoulos, S. (2011). Fixed effects and variance components estimation in three-level meta-analysis. *Research Synthesis Methods, 2*(1), 61–76. <https://doi.org/10.1002/jrsm.35>
- Kozlowski, K. P. (2015). Culture or teacher bias? Racial and ethnic variation in student-teacher effort assessment match/mismatch. *Race and Social Problems, 7*(1), 43–59. <https://doi.org/10.1007/s12552-014-9138-x>
- Knight, G. P., Gonzales, N. A., Saenz, D. S., Bonds, D. D., Germán, M., Deardorff, J., & Updegraff, K. A. (2010). The Mexican American cultural values scales for adolescents and adults. *The Journal of Early Adolescence, 30*(3), 444–481. <https://doi.org/10.1177/0272431609338178>
- Knight, G. P., Jacobson, R. P., Gonzales, N. A., Roosa, M. W., & Saenz, D. S. (2009). An evaluation of psychological research on acculturation and enculturation processes among recently immigrating populations. In R. L. Dalla, J. Defrain, J. Johnson, & D. A. Abbott (Eds.), *Strengths and challenges of new immigrant families: Implications for Research, Educational, Policy, and Service* (pp. 9–31). Lexington Books.
- Knight, G. P., Mazza, G. L., & Carlo, G. (2018). Trajectories of familism values and the prosocial tendencies of Mexican American adolescents. *Developmental Psychology, 54*, 378–384. <https://doi.org/10.1037/dev0000436>
- Korous, K. M., Causadias, J. M., Bradley, R. H., & Luthar, S. S. (2018). Unpacking the link between socioeconomic status and behavior problems: A second-order meta-analysis. *Development and Psychopathology, 30*(5), 1889–1906. <https://doi.org/10.1017/S0954579418001141>
- Korous, K. M., Causadias, J. M., Bradley, R. H., Luthar, S. S., & Levy, R. (2020). A systematic overview of meta-analyses on socioeconomic status, cognitive ability, and achievement: The need to focus on specific pathways. *Psychological Reports*. Advance online publication. <https://doi.org/10.1177/0033294120984127>
- *Koerner, S. S., & Shirai, Y. (2012). The negative impact of global perceptions of and daily care-related family conflict on Hispanic caregivers: Familism as a potential moderator. *Aging & Mental Health, 16*, 486–499. <https://doi.org/10.1080/13607863.2011.638905>
- Krogstad, J. M. (2020, July 10). *Hispanics have accounted for more than half of total U.S. population growth since 2010*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/07/10/hispanics-have-accounted-for-more-than-half-of-total-u-s-population-growth-since-2010/>
- Krogstad, J. M., & Noe-Bustamante, L. (2020, September 10). *Key facts about U.S. Latinos for National Hispanic Heritage Month*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/09/10/key-facts-about-u-s-latinos-for-national-hispanic-heritage-month/>
- *Kuhlberg, J. A., Peña, J. B., & Zayas, L. H. (2010). Familism, parent-adolescent conflict, self-esteem, internalizing behaviors and suicide attempts among adolescent Latinas. *Child Psychiatry and Human Development, 41*, 425–440. <https://doi.org/10.1007/s10578-010-0179-0>
- *Kuo, S. I.-C., Updegraff, K. A., Zeiders, K. H., McHale, S. M., Umaña-Taylor, A. J., & De Jesús, S. A. R. (2015). Mexican American adolescents' sleep patterns: Contextual correlates and implications for health and adjustment in young adulthood. *Journal of Youth and Adolescence, 44*, 346–361. <https://doi.org/10.1007/s10964-014-0156-1>
- *Lac, A., Unger, J. B., Basáñez, T., Ritt-Olson, A., Soto, D. W., & Baezconde-Garbanati, L. (2011). Marijuana use among Latino adolescents: Gender differences in protective familial factors. *Substance Use & Misuse, 46*, 644–655. <https://doi.org/10.3109/10826084.2010.528121>
- Lam, C. B., McHale, S. M., & Updegraff, K. A. (2012). Gender dynamics in Mexican American families: Connecting mothers', fathers', and youths' experiences. *Sex Roles, 67*(1–2), 17–28. <https://doi.org/10.1007/s11199-012-0137-3>
- Landale, N. S., Oropesa, R. S., & Bradatan, C. (2006). Hispanic families in the United States: Family structure and process in an era of family change. Hispanics and the future of America. <http://www.nap.edu/catalog/11539.html>
- *Li, Y. (2013). Intergenerational conflict, attitudinal familism, and depressive symptoms among Asian and Hispanic adolescents in immigrant families: A latent variable interaction analysis. *Journal of Social Service Research, 40*(1), 80–96. <https://doi.org/10.1080/01488376.2013.845128>
- Lichter, D. T., Parisi, D., Taquino, M., & Grice, S. (2010). Residential segregation in new Hispanic destinations. *The International Migration Review, 43*, 496–518. <https://doi.org/10.1111/j.1747-7379.2009.00775.x>
- *Lin, C. V. (2007). *Latino adolescent substance use: Importance of cultural values and peer influence* (Doctoral dissertation). ProQuest Information and Learning Company. (UMI No. 3258118).

- Lipsley, M. W. (2003). Those confounded moderators in meta-analysis: Good, bad, and ugly. *The ANNALS of the American Academy of Political and Social Science*, 587(1), 69–81. <https://doi.org/10.1177/0002716202250791>
- *Long, K. A., Kao, B., Plante, W., Seifer, R., & Lobato, D. (2015). Cultural and child-related predictors of distress among Latina caregivers of children with intellectual disabilities. *American Journal on Intellectual and Developmental Disabilities*, 120(2), 145–165. <https://doi.org/10.1352/1944-7558-120.2.145>
- López, G., & Patten, E. (2015). The impact of slowing immigration: Foreign-born share falls among 14 largest U.S. Hispanic origin groups. Pew Research Center. <https://www.pewresearch.org/hispanic/2015/09/15/the-impact-of-slowing-immigration-foreign-born-share-falls-among-14-largest-us-hispanic-origin-groups/>. Accessed January 15, 2018.
- *Lorenzo-Blanco, E. I., Unger, J. B., Baezconde-Garbanati, L., Ritt-Olson, A., & Soto, D. (2012). Acculturation, enculturation, and symptoms of depression in Hispanic youth: The roles of gender, Hispanic cultural values, and family functioning. *Journal of Youth and Adolescence*, 41, 1350–1365. <https://doi.org/10.1007/s10964-012-9774-7>
- *Losada, A., Robinson Shurgot, G., Knight, B. G., Márquez, M., Montorio, I., Izal, M., & Ruiz, M. A. (2006). Cross-cultural study comparing the association of familism with burden and depressive symptoms in two samples of Hispanic dementia caregivers. *Aging & Mental Health*, 10, 69–76. <https://doi.org/10.1080/13607860500307647>
- Lugo Steidel, A. G. L., & Contreras, J. M. (2003). A new familism scale for use with Latino populations. *Hispanic Journal of Behavioral Sciences*, 25, 312–330. <https://doi.org/10.1177/0739986303256912>
- Mahatmya, D., Lohman, B. J., Brown, E. L., & Conway-Turner, J. (2016). The role of race and teachers' cultural awareness in predicting low-income, Black and Hispanic students' perceptions of educational attainment. *Social Psychology of Education*, 19(2), 427–449. <https://doi.org/10.1007/s11218-016-9334-1>
- *Mahrer, N. E. (2015). *Understanding the effect of non-responsive parenting on offspring externalizing problems in young adulthood: Examining the roles of stress response and culture* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3701753)
- *Mahrer, N. E., Holly, L. E., Luecken, L. J., Wolchik, S. A., & Fabricius, W. (2019). Parenting style, familism, and youth adjustment in Mexican American and European American families. *Journal of Cross-Cultural Psychology*, 50(5), 659–675. <https://doi.org/10.1177/0022022119839153>
- *Marsiglia, F. F., Parsai, M., & Kulis, S., & the Southwest Interdisciplinary Research Center. (2009). Effects of familism and family cohesion on problem behaviors among adolescents in Mexican immigrant families in the Southwest U.S. *Journal of Ethnic & Cultural Diversity in Social Work*, 18, 203–220. <https://doi.org/10.1080/15313200903070965>
- *Martinez, W., Polo, A. J., & Carter, J. S. (2012). Family orientation, language, and anxiety among low-income Latino youth. *Journal of Anxiety Disorders*, 26(4), 517–525. <https://doi.org/10.1016/j.janxdis.2012.02.005>
- *McHale, S. M., Updegraff, K. A., Shanahan, L., Crouter, A. C., & Killoren, S. E. (2005). Siblings' Differential Treatment in Mexican American Families. *Journal of Marriage and Family*, 67, 1259–1274. <https://doi.org/10.1111/j.1741-3737.2005.00215.x>
- *McHale, S. M., Updegraff, K. A., Kim, J.-Y., & Cansler, E. (2009). Cultural orientations, daily activities, and adjustment in Mexican American youth. *Journal of Youth and Adolescence*, 38(5), 627–641. <https://doi.org/10.1007/s10964-008-9321-8>
- *Medrano, A. L. (2011). *Predictors of academic aspirations and attainment among Mexican-American women* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3421133)
- Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology*, 44(4), 1069–1080. <https://doi.org/10.1037/0012-1649.44.4.1069>
- Mello, Z. R. (2009). Racial/ethnic group and socioeconomic status variation in educational and occupational expectations from adolescence to adulthood. *Journal of Applied Developmental Psychology*, 30(4), 494–504. <https://doi.org/10.1016/j.appdev.2008.12.029>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6, e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Morcillo, C., Duarte, C. S., Shen, S., Blanco, C., Canino, G., & Bird, H. R. (2011). Parental familism and antisocial behaviors: Development, gender, and potential mechanisms. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50, 471–479. <https://doi.org/10.1016/j.jaac.2011.01.014>
- *Muñoz-Laboy, M., Severson, N., Perry, A., & Guilamo-Ramos, V. (2014). Differential impact of types of social support in the mental health of formerly incarcerated Latino men. *American Journal of Men's Health*, 8, 226–239. <https://doi.org/10.1177/1557988313508303>
- *Muñoz-Laboy, M., Worthington, N., Perry, A., Guilamo-Ramos, V., Cabassa, L., Lee, J., & Severson, N. (2013). Socio-environmental risks for untreated depression among formerly incarcerated Latino men. *Journal of Immigrant and Minority Health*, 16, 1183–1192. <https://doi.org/10.1007/s10903-013-9814-8>
- Neblett, E. W. J., Jr., Rivas-Drake, D., & Umaña-Taylor, A. J. (2012). The promise of racial and ethnic protective factors in promoting ethnic minority youth development. *Child Development Perspectives*, 6, 295–303. <https://doi.org/10.1111/j.1750-8606.2012.00239.x>
- Noe-Bustamante, L. (2019). *Key facts about U.S. Hispanics and their diverse heritage*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2019/09/16/key-facts-about-u-s-hispanics/>
- Noe-Bustamante, L., Mora, L., & Lopez, M. H. (2020). *About one-in-four US Hispanics have heard of Latinx, but just 3% use it*. Pew Research Center. <https://www.pewresearch.org/hispanic/2020/08/11/about-one-in-four-u-s-hispanics-have-heard-of-latinx-but-just-3-use-it/>
- *Ocegueda, I. K. (2010). *Predictors of adolescent delinquency in Mexican Americans* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3368109)
- *Ojeda, L., Morales, A., & Navarro, R. (2011). Role of la familia on Mexican American men's college persistence intentions. *PsycEXTRA Dataset*, 12, 216–229. <https://doi.org/10.1037/a0020091>
- Olson, D. H., Russell, C. S., & Sprenkle, D. H. (1983). Circumplex model of marital and family systems: VI. Theoretical update. *Family Process*, 22(1), 69–83. <https://doi.org/10.1111/j.1545-5300.1983.00069.x>
- *Ornelas, I. J., & Perreira, K. M. (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. *Social Science & Medicine*, 73, 1169–1177. <https://doi.org/10.1016/j.socscimed.2011.07.002>
- *Padilla, J., McHale, S. M., Rovine, M. J., Updegraff, K. A., & Umaña-Taylor, A. J. (2016). Parent-youth differences in familism values from adolescence into young adulthood: Developmental course and links with parent-youth conflict. *Journal of Youth and Adolescence*, 45, 2417–2430. <https://doi.org/10.1007/s10964-016-0518-y>
- Perez-Brena, N. J., Rivas-Drake, D., Toomey, R. B., & Umaña-Taylor, A. J. (2018). Contributions of the integrative model for the study of developmental competencies in minority children: What have we learned about adaptive culture? *American Psychologist*, 73(6), 713–726. <https://doi.org/10.1037/amp0000292>
- Perez-Brena, N. J., Updegraff, K. A., & Umaña-Taylor, A. J. (2015). Transmission of cultural values among Mexican-origin parents and their adolescent and emerging adult offspring. *Family Process*, 54(2), 232–246. <https://doi.org/10.1111/famp.12114>
- *Perez-Brena, N. J., Wheeler, L. A., Rodríguez De Jesús, S. A., Updegraff, K. A., & Umaña-Taylor, A. Y. (2017). The educational and career adjustment of Mexican-origin youth in the context of the 2007/2008

- economic recession. *Journal of Vocational Behavior*, 100, 149–163. <https://doi.org/10.1016/j.jvb.2017.02.006>
- Perez, G., & Cruess, D. (2014). The impact of familism on physical and mental health among Hispanics in the United States. *Health Psychology Review*, 8, 95–127. <https://doi.org/10.1080/17437199.2011.569936>
- Peterson, G. W., & Bush, K. R. (2013). Parent-child relationships in diverse contexts. In G. W. Peterson & K. R. Bush (Eds.), *Handbook of marriage and family* (3rd ed., pp. 275–302). Springer. <https://doi.org/10.1007/978-1-4614-3987-5>
- *Piña-Watson, M. B. (2014). *The influence of caregiver-child acculturation gap on Mexican American adolescents' depression and suicidality* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3683939)
- *Piña-Watson, B., López, B., Ojeda, L., & Rodriguez, K. M. (2015). Cultural and cognitive predictors of academic motivation among Mexican American adolescents: Caution against discounting the impact of cultural processes. *Journal of Multicultural Counseling and Development*, 43, 109–121. <https://doi.org/10.1002/j.2161-1912.2015.00068.x>
- Polanin, J. R., Hennessy, E. A., & Tsuji, S. (2020). Transparency and reproducibility of meta-analyses in psychology: A meta-review. *Perspectives on Psychological Science*, 15(4), 1026–1041. <https://doi.org/10.1177/1745691620906416>
- Polanin, J. R., Tanner-Smith, E. E., & Hennessy, E. A. (2016). Estimating the difference between published and unpublished effect sizes: A meta-review. *Review of Educational Research*, 86(1), 207–236. <https://doi.org/10.3102/0034654315582067>
- *Polo, A. J., Zychinski, K. E., & Roundfield, K. E. (2012). The parental schoolwork support measure-youth: Development and psychometric evaluation. *Cultural Diversity & Ethnic Minority Psychology*, 18, 297–306. <https://doi.org/10.1037/a0028729>
- *Porras, C. V. (2011). *Factors associated with Latino/A retention and GPA at a predominantly White university* (Doctoral dissertation). ProQuest Dissertations and Theses. (UMI No. 3474693)
- Portes, A., & Rumbaut, R. G. (1996). *Immigrant America: A portrait* (2nd ed.). University of California Press.
- Portes, A., & Rumbaut, R. G. (2001). *The forging of a new America: Lessons from theory and policy*. University of California Press.
- Potochnick, S. (2014). How states can reduce the dropout rate for undocumented immigrant youth: The effects of in-state resident tuition policies. *Social Science Research*, 45, 18–32. <https://doi.org/10.1016/j.ssresearch.2013.12.009>
- Raffaelli, M., & Ontai, L. L. (2004). Gender socialization in Latino/a families: Results from two retrospective studies. *A Journal of Research*, 50, 287–299. <https://doi.org/10.1023/B:SERS.0000018886.58945.06>
- *Reibman, S. E. (2002). *Achievement motivation in Latino college students: The role of personality, characteristics, acculturation, and familism* (Doctoral dissertation). ProQuest Information and Learning Company. (UMI No. 3062709).
- *Reid, A., Halgunseth, L. C., Espinosa-Hernandez, G., & Vasilenko, S. A. (2018). Sociocultural influences on the association between negative romantic experiences and psychological maladjustment in Mexican adolescents. *Journal of Research on Adolescence*, 28, 888–901. <https://doi.org/10.1111/jora.12375>
- Rescorla, L. A., Achenbach, T. M., Ivanova, M. Y., Turner, L. V., Althoff, R. R., Árnadóttir, H. A., Au, A., Bellina, M., Caldas, J. C., Chen, Y.-C., Csemy, L., da Rocha, M. M., Decoster, J., Fontaine, J. R. J., Funabiki, Y., Gudmundsson, H. S., Harder, V. S., Kim, Y. A., Leung, P., . . . Zasepa, E. (2016). Problems and adaptive functioning reported by adults in 17 societies. *International Perspectives in Psychology*, 5(2), 91–109.
- *Rivas-Drake, D., & Marchand, A. (2016). Academic socialization among Latino families: Exploring the compensatory role of cultural processes. *Research in Human Development*, 13, 225–240. <https://doi.org/10.1080/15427609.2016.1194708>
- Rothstein, H. R., Sutton, A. J., & Borenstein, M. (2005). *Publication bias in meta-analysis: Prevention, assessment, and adjustments*. Wiley.
- *Roche, K. M., Ghazarian, S. R., & Fernandez-Esquer, M. E. (2012). Unpacking acculturation: Cultural orientations and educational attainment among Mexican-origin youth. *Journal of Youth and Adolescence*, 41(7), 920–931. <https://doi.org/10.1007/s10964-011-9725-8>
- *Rodríguez, J. L. (2002). Family environment and achievement among three generations of Mexican American high school students. *Applied Developmental Science*, 6, 88–94. https://doi.org/10.1207/S1532480XADS0602_4
- *Rodríguez De Jesús, S. A., Updegraff, K. A., Umaña-Taylor, A. J., McHale, S. M., & Zeiders, K. H. (2019). Mexican-Origin youth's cultural orientations and values: Do older sisters and brothers matter? *Child Development*, 90, e675–e687. <https://doi.org/10.1111/cdev.13106>
- *Rodríguez De Jesús, S. A. (2015). *The role of Mexican American siblings in adolescence and young adulthood* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3700784)
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford University Press.
- *Roosa, M. W., Zeiders, K. H., Knight, G. P., Gonzales, N. A., Tein, J.-Y., Saenz, D., & Berkel, C. (2011). A test of the social development model during the transition to junior high with Mexican American adolescents. *Developmental Psychology*, 47, 527–537. <https://doi.org/10.1037/a0021269>
- Sabogal, F., Marin, G., Otero-Sabogal, R., Marin, B., & Perez-Stable, E. (1987). Hispanic familism and acculturation: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences*, 9(4), 397–412. <https://doi.org/10.1177/07399863870094003>
- *Sanchez, O. (2013). *Latinos and depressive symptomatology: A multidimensional investigation of acculturation* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3611330)
- *Santiago, C. D., & Wadsworth, M. E. (2011). Family and cultural influences on low-income Latino children's adjustment. *Journal of Clinical Child and Adolescent Psychology*, 40, 332–337. <https://doi.org/10.1080/15374416.2011.546038>
- *Santiago DeCarlo, C. (2011). *Family coping as a protective factor for poor children* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3426062)
- Sarkisian, N., Gerena, M., & Gerstel, N. (2006). Extended family ties among Mexicans, Puerto Ricans, and Whites: Superintegration or disintegration. *Family Relations*, 55, 331–344. <https://doi.org/10.1111/j.1741-3729.2006.00408.x>
- Schroeder, K. M., & Bámaca-Colbert, M. Y. (2019). Cultural underpinnings of gender development: Studying gender among children of immigrants. *Child Development*, 90, 1005–1015. <https://doi.org/10.1111/cdev.13265>
- Schroeder, K. M., Bámaca-Colbert, M. Y., & Robins, R. W. (2019). Becoming more egalitarian: A longitudinal examination of Mexican-origin adolescents' gender role attitudes. *Developmental Psychology*, 55, 2311–2323. <https://doi.org/10.1037/dev0000811>
- Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annual Review of Psychology*, 70, 747–770. <https://doi.org/10.1146/annurev-psych-010418-102803>
- *Smokowski, P. R., & Bacallao, M. L. (2007). Acculturation, internalizing mental health symptoms, and self-esteem: Cultural experiences of Latino adolescents in North Carolina. *Child Psychiatry and Human Development*, 37, 273–292. <https://doi.org/10.1007/s10578-006-0035-4>
- *Smokowski, P. R., Bacallao, M., & Buchanan, R. L. (2009). Interpersonal mediators linking acculturation stressors to subsequent internalizing symptoms and self-esteem in Latino adolescents. *Journal of Community Psychology*, 37, 1024–1045. <https://doi.org/10.1002/jcop.20346>

- *Smokowski, P. R., & Bacallao, M. L. (2006). Acculturation and aggression in Latino adolescents: A structural model focusing on cultural risk factors and assets. *Journal of Abnormal Child Psychology*, *34*, 659–673. <https://doi.org/10.1007/s10802-006-9049-4>
- *Smokowski, P. R., Chapman, M. V., & Bacallao, M. L. (2007). Acculturation risk and protective factors and mental health symptoms in immigrant Latino adolescents. *Journal of Human Behavior in the Social Environment*, *16*(3), 33–55. <https://doi.org/10.1300/10911350802107710>
- *Smokowski, P. R., Rose, R. A., & Bacallao, M. (2010). Influence of risk factors and cultural assets on Latino adolescents' trajectories of self-esteem and internalizing symptoms. *Child Psychiatry and Human Development*, *41*, 133–155. <https://doi.org/10.1007/s10578-009-0157-6>
- *Sommers, I., Fagan, J., & Baskin, D. (1993). Sociocultural influences on the explanation of delinquency for Puerto Rican youths. *Hispanic Journal of Behavioral Sciences*, *15*(1), 36–62. <https://doi.org/10.1177/07399863930151002>
- *Sotomayor-Peterson, M. (2012). *Parental cultural values, coparental, and familial functioning in Mexican immigrant families: Its impact on children's social competence* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3320007)
- Spees, L., Perreira, K. M., & Fuligni, A. (2017). Family matters: Promoting the academic adaptation of Latino youth in new and established destinations. *Journal of Family Issues*, *38*, 457–479. <https://doi.org/10.1177/0192513X16646592>
- Sroufe, L. A., Szteren, L., & Causadias, J. M. (2014). El apego como un sistema dinámico: Fundamentos de la teoría del apego. [Attachment as a dynamic system: Principles of attachment theory] In B. Torres de Cádiz, J. M. Causadias, & G. Posada (Eds.), *La teoría del apego: Investigación y aplicaciones clínicas* [Attachment theory: Research and clinical applications]. Psimática.
- Stamps, K., & Bohon, S. A. (2006). Educational attainment in new and established Latino metropolitan destinations. *Social Science Quarterly*, *87*, 1225–1240. <https://doi.org/10.1111/j.1540-6237.2006.00425.x>
- Stein, G. L., Cupito, A. M., Mendez, J. L., Prandoni, J., Huq, N., & Westerberg, D. (2014). Familism through a developmental lens. *Journal of Latina/o Psychology*, *2*, 224–250. <https://doi.org/10.1037/lat0000025>
- *Stein, G. L., Gonzalez, L. M., Cupito, A. M., Kiang, L., & Supple, A. J. (2015). The protective role of familism in the lives of Latino adolescents. *Journal of Family Issues*, *36*, 1255–1273. <https://doi.org/10.1177/0192513X13502480>
- Steinberg, L. (2001). We know some things: Parent-adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence*, *11*, 1–19. <https://doi.org/10.1111/1532-7795.00001>
- Sterne, J. A. C., & Egger, M. (2006). Regression methods to detect publication and other bias in meta-analysis. *Publication Bias in Meta-Analysis*, 99–110. <https://doi.org/10.1002/0470870168.ch6>
- Suárez-Orozco, C., & Suárez-Orozco, M. M. (1995). *Transformations: Immigration, family life, and achievement motivation among Latino adolescents*. Stanford University Press.
- Suárez-Orozco, C., Motti-Stefanidi, F., Marks, A., & Katsiaficas, D. (2018). An integrative risk and resilience model for understanding the adaptation of immigrant-origin children and youth. *American Psychologist*, *73*(6), 781–796. <https://doi.org/10.1037/amp0000265>
- Tanner-Smith, E. E., Tipton, E., & Polanin, J. R. (2016). Handling complex meta-analytic data structures using robust variance estimates: A tutorial in R. *Journal of Developmental and Life-Course Criminology*, *2*(1), 85–112. <https://doi.org/10.1007/s40865-016-0026-5>
- *Tasopoulos-Chan, M. (2013). *Adolescents' information management with parents and adjustment: a study of American adolescents from European, Chinese and Mexican backgrounds* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3600470)
- *Tasopoulos-Chan, M., Smetana, J. G., & Yau, J. P. (2009). How much do I tell thee? Strategies for managing information to parents among American adolescents from Chinese, Mexican, and European backgrounds. *Journal of Family Psychology*, *23*(3), 364–374. <https://doi.org/10.1037/a0015816>
- Taylor, Z. E., Larsen-Rife, D., Conger, R. D., & Widaman, K. F. (2012). Familism, interparental conflict, and parenting in Mexican-origin families: A cultural-contextual framework. *Journal of Marriage and Family*, *74*(2), 312–327. <https://doi.org/10.1111/j.1741-3737.2012.00958.x>
- Telzer, E. H. (2010). Expanding the acculturation gap-distress model: An integrative review of research. *Human Development*, *53*(6), 313–340. <https://doi.org/10.1159/000322476>
- *Telzer, E. H., Fuligni, A. J., Lieberman, M. D., & Galván, A. (2013). Meaningful family relationships: Neurocognitive buffers of adolescent risk taking. *Journal of Cognitive Neuroscience*, *25*(3), 374–387. https://doi.org/10.1162/jocn_a_00331
- *Telzer, H. E. (2012). *Neurobehavioral correlates of familism and adolescent risk taking* (Doctoral dissertation) ProQuest Dissertations and Theses database. (UMI No. 3509637)
- *Telzer, E. H., Gonzales, N., & Fuligni, A. J. (2014). Family obligation values and family assistance behaviors: Protective and risk factors for Mexican-American adolescents' substance use. *Journal of Youth and Adolescence*, *43*, 270–283. <https://doi.org/10.1007/s10964-013-9941-5>
- *Telzer, E. H., Tsai, K. M., Gonzales, N., & Fuligni, A. J. (2015). Mexican American adolescents' family obligation values and behaviors: Links to internalizing symptoms across time and context. *Developmental Psychology*, *51*(1), 75–86. <https://doi.org/10.1037/a0038434>
- Thompson, R. A., & Meyer, S. (2007). Socialization of emotion regulation in the family. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 249–268). Guilford Press.
- *Tsai, K. M. (2014). *Adolescents' maintenance of family connectedness in their everyday lives* (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. 3622727)
- *Tsai, K. M., Gonzales, N. A., & Fuligni, A. J. (2016). Mexican American Adolescents' Emotional Support to the Family in Response to Parental Stress. *Journal of Research on Adolescence*, *26*(4), 658–672. <https://doi.org/10.1111/jora.12216>
- *Tsai, K. M., Telzer, E. H., Gonzales, N. A., & Fuligni, A. J. (2015). Parental cultural socialization of Mexican-American adolescents' family obligation values and behaviors. *Child Development*, *86*(4), 1241–1252. <https://doi.org/10.1111/cdev.12358>
- Umaña-Taylor, A. J., & Fine, M. A. (2001). Methodological implications of grouping Latino adolescents into one collective ethnic group. *Hispanic Journal of Behavioral Sciences*, *23*, 347–362. <https://doi.org/10.1177/0739986301234001>
- Umaña-Taylor, A. J., Quintana, S. M., Lee, R. M., Cross, W. E., Jr., Rivas-Drake, D., Schwartz, S. J., & Seaton, E., & The Ethnic and Racial Identity in the 21st Century Study Group. (2014). Ethnic and racial identity during adolescence and into young adulthood: An integrated conceptualization. *Child Development*, *85*, 21–39. <https://doi.org/10.1111/cdev.12196>
- Umaña-Taylor, A. J., & Updegraff, K. A. (2013). Latino families in the United States. In G. W. Peterson, & K. R. Bush (Eds.), *Handbook of marriage and the family* (3rd ed.), (pp. 723–747). Springer.
- *Umaña-Taylor, A. J., Updegraff, K. A., & Gonzales-Backen, M. A. (2011). Mexican-origin adolescent mothers' stressors and psychosocial functioning: Examining ethnic identity affirmation and familism as moderators. *Journal of Youth and Adolescence*, *40*, 140–157. <https://doi.org/10.1007/s10964-010-9511-z>
- *Updegraff, K. A., McHale, S. M., Whiteman, S. D., Thayer, S. M., & Delgado, M. Y. (2005). Adolescent sibling relationships in Mexican American families: Exploring the role of familism. *Journal of Family Psychology*, *19*, 512–522. <https://doi.org/10.1037/0893-3200.19.4.512>
- Updegraff, K. A., & Umaña-Taylor, A. J. (2010). Structure and process in Mexican-origin families and their implications for youth development. In N. Landale, S. M. McHale, & A. Booth (Eds.), *Growing up Hispanic: Health and development of children of immigrants* (pp. 97–144). Urban Institute.

- *Updegraff, K. A., Umaña-Taylor, A. J., McHale, S. M., Wheeler, L. A., & Perez-Brena, N. J. (2012). Mexican-origin youth's cultural orientations and adjustment: Changes from early to late adolescence. *Child Development, 83*, 1655–1671. <https://doi.org/10.1111/j.1467-8624.2012.01800.x>
- Updegraff, K. A., Umaña-Taylor, A. J., Zeiders, K. H., Bravo, D. Y., & Jahromi, L. B. (2018). Familism values across the transition to adolescent motherhood: Links to family functioning and Mexican-origin adolescent mothers' adjustment. *Development and Psychopathology, 30*(5), 1589–1609.
- *Urizar, G. G., Jr., & Sears, S. F., Jr. (2006). Psychosocial and cultural influences on cardiovascular health and quality of life among Hispanic cardiac patients in South Florida. *Journal of Behavioral Medicine, 29*, 255–268. <https://doi.org/10.1007/s10865-006-9050-y>
- U.S. Census Bureau. (2010). *The Hispanic population: 2010*. <https://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>
- U.S. Census Bureau. (2020). *Hispanic heritage month 2020*. <https://www.census.gov/newsroom/facts-for-features/2020/hispanic-heritage>
- Valdivieso-Mora, E., Peet, C. L., Garnier-Villarreal, M., Salazar-Villanea, M., & Johnson, D. K. (2016). A Systematic Review of the Relationship between Familism and Mental Health Outcomes in Latino Population. *Frontiers in Psychology, 7*, 1632. <https://doi.org/10.3389/fpsyg.2016.01632>
- Valenzuela, A., Jr. (1999). Gender roles and settlement activities among children and their immigrant families. *American Behavioral Scientist, 42*, 720–742. <https://doi.org/10.1177/0002764299042004009>
- *Valenzuela, A., & Dornbusch, S. M. (1994). Familism and social capital in the academic achievement of Mexican origin and Anglo adolescents. *Social Science Quarterly, 75*, 18–36.
- Van den Noortgate, W., López-López, J. A., Marín-Martínez, F., & Sánchez-Meca, J. (2013). Three-level meta-analysis of dependent effect sizes. *Behavior Research Methods, 45*(2), 576–594. <https://doi.org/10.3758/s13428-012-0261-6>
- *Vargas, D. A., Roosa, M. W., Knight, G. P., & O'Donnell, M. (2013). Family and cultural processes linking family instability to Mexican American adolescent adjustment. *Journal of Family Psychology, 27*, 387–397. <https://doi.org/10.1037/a0032863>
- Vega, W. (1990). Hispanic families in the 1980s: A decade of research. *Journal of Marriage and Family, 52*(4), 1015–1024. <https://doi.org/10.2307/353316>
- Viechtbauer, W. (2007). Confidence intervals for the amount of heterogeneity in meta-analysis. *Statistics in Medicine, 26*(1), 37–52. <https://doi.org/10.1002/sim.2514>
- Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software, 36*(3), 1–48. <https://doi.org/10.18637/jss.v036.i03>
- *Weisskirch, R. S. (2013). Family relationships, self-esteem, and self-efficacy among language brokering Mexican American emerging adults. *Journal of Child and Family Studies, 22*(8), 1147–1155. <https://doi.org/10.1007/s10826-012-9678-x>
- *Wheeler, L. A., Zeiders, K. H., Updegraff, K. A., Umaña-Taylor, A. J., Rodríguez de Jesús, S. A., & Perez-Brena, N. J. (2017). Mexican-origin youth's risk behavior from adolescence to young adulthood: The role of familism values. *Developmental Psychology, 53*(1), 126–137. <https://doi.org/10.1037/dev0000251>
- *White, R. M. B. (2008). *Objective and subjective neighborhood contexts and Mexican American young adolescents' internalizing behavior* (Doctoral dissertation) ProQuest Dissertations and Theses database. (UMI No. 3304902)
- *White, R. M. B., Liu, Y., Nair, R. L., & Tein, J.-Y. (2015). Longitudinal and integrative tests of family stress model effects on Mexican origin adolescents. *Developmental Psychology, 51*, 649–662. <https://doi.org/10.1037/a0038993>
- *White, R. M. B., Roosa, M. W., & Zeiders, K. H. (2012). Neighborhood and family intersections: Prospective implications for Mexican American adolescents' mental health. *Journal of Family Psychology, 26*(5), 793–804. <https://doi.org/10.1037/a0029426>
- White, R. M. B., Nair, R. L., & Bradley, R. H. (2018). Theorizing the benefits and costs of adaptive cultures for development. *American Psychologist, 73*(6), 727–739. <https://doi.org/10.1037/amp0000237>
- *Witkow, M. R., Huynh, V., & Fuligni, A. J. (2015). Understanding differences in college persistence: A longitudinal examination of financial circumstances, family obligations, and discrimination in an ethnically diverse sample. *Applied Developmental Science, 19*(1), 4–18. <https://doi.org/10.1080/10888691.2014.946030>
- *Yau, J. P., Tasopoulos-Chan, M., & Smetana, J. G. (2009). Disclosure to parents about everyday activities among American adolescents from Mexican, Chinese, and European backgrounds. *Child Development, 80*(5), 1481–1498. <https://doi.org/10.1111/j.1467-8624.2009.01346.x>
- *Young, C. C. (2016). Familial factors, cognitive vulnerabilities, and stressful events related to depressive symptoms in Latino adolescents. *Hispanic Journal of Behavioral Sciences, 38*, 360–377. <https://doi.org/10.1177/0739986316644734>
- Zahn-Waxler, C., Shirtcliff, E. A., & Marceau, K. (2008). Disorders of childhood and adolescence: Gender and psychopathology. *Annual Review of Clinical Psychology, 4*, 275–303. <https://doi.org/10.1146/annurev.clinpsy.3.022806.091358>
- *Zapata Roblyer, M. I., & Betancourth Zambrano, S. (2017). Crime victimization and suicidal ideation among Colombian college students. *Journal of Interpersonal Violence*. Advance Online Publication. <https://doi.org/10.1177/0886260517696856>
- *Zapata Roblyer, M. I., Grzywacz, J. G., Cervantes, R. C., & Merten, M. J. (2016). Stress and alcohol, cigarette, and marijuana use among Latino adolescents in families with undocumented immigrants. *Journal of Child and Family Studies, 25*, 475–487. <https://doi.org/10.1007/s10826-015-0249-9>
- Zeiders, K. H., Roosa, M. W., Knight, G. P., & Gonzales, N. A. (2013). Mexican American adolescents' profiles of risk and mental health: A person-centered longitudinal approach. *Journal of Adolescence, 36*, 603–612. <https://doi.org/10.1016/j.adolescence.2013.03.014>
- *Zeiders, K. H., Umaña-Taylor, A. J., Jahromi, L. B., & Updegraff, K. A. (2015). Grandmothers' familism values, adolescent mothers' parenting efficacy, and children's well-being. *Journal of Family Psychology, 29*, 624–634. <https://doi.org/10.1037/fam0000103>
- *Zeiders, K. H., Updegraff, K. A., Umaña-Taylor, A. J., Wheeler, L. A., Perez-Brena, N. J., & Rodríguez, S. A. (2013). Mexican-origin youths' trajectories of depressive symptoms: The role of familism values. *The Journal of Adolescent Health, 53*, 648–654. <https://doi.org/10.1016/j.jadohealth.2013.06.008>
- *Zeiders, K. H., Updegraff, K. A., Umaña-Taylor, A. J., McHale, S. M., & Padilla, J. (2016). Parental familism values, family time, and Mexican-origin young adults' depressive symptoms. *Journal of Marriage and Family, 78*, 91–106. <https://doi.org/10.1111/jomf.12248>

Received February 10, 2020

Revision received July 2, 2021

Accepted July 19, 2021 ■