

UC Irvine

UC Irvine Previously Published Works

Title

Familism and Psychological Health: The Intervening Role of Closeness and Social Support

Permalink

<https://escholarship.org/uc/item/03n5p0kp>

Journal

Cultural Diversity & Ethnic Minority Psychology, 20(2)

ISSN

1099-9809

Authors

Campos, Belinda

Ullman, Jodie B

Aguilera, Adrian

et al.

Publication Date

2014-04-01

DOI

10.1037/a0034094

Peer reviewed



Published in final edited form as:

Cultur Divers Ethnic Minor Psychol. 2014 April ; 20(2): 191–201. doi:10.1037/a0034094.

Familism and Psychological Health: The Intervening Role of Closeness and Social Support

Belinda Campos,

University of California, Irvine

Jodie B. Ullman,

California State University, San Bernardino

Adrian Aguilera, and

University of California, Berkeley

Christine Dunkel Schetter

University of California, Los Angeles

Abstract

Familism, a cultural value that emphasizes warm, close, supportive family relationships and that family be prioritized over self, has been associated with psychological health. The goal of this work was to fill a gap in the literature on *how* familism contributes to psychological health. Drawing from conceptual links between familism and close relationship processes, we hypothesized that familism contributes to better psychological health by facilitating closeness and social support. A university sample of U.S. women and men of Latino ($n = 173$), European ($n = 257$), and Asian ($n = 642$) cultural backgrounds completed measures of familism, closeness to family members, general perceived social support, and psychological health as indexed by perceived stress, general mental health, and depressive symptoms. Structural equation multiple-group modeling analyses found direct effects of familism on closeness to family members and perceived social support and an indirect effect of familism on better psychological health via greater closeness to family members and greater perceived social support. These effects did not differ by cultural background. Consistent with previous research, however, Latinos reported the highest levels of familism of the three cultural groups, and women reported higher familism and support as well as poorer psychological health than men. Discussion is focused on the implications of these findings for understanding the association of familism with psychological health and the relevance of the familism construct for diverse U.S. groups.

Keywords

familism; closeness; social support; psychological health

© 2014 American Psychological Association

Correspondence concerning this article should be addressed to Belinda Campos, Department of Chicano/Latino Studies, 3151 Social Science Plaza A, University of California, Irvine, CA 92697-5100. bcampos@uci.edu.

Belinda Campos, Department of Chicano/Latino Studies, University of California, Irvine; Jodie B. Ullman, Department of Psychology, California State University, San Bernardino; Adrian Aguilera, School of Social Welfare, University of California, Berkeley; and Christine Dunkel Schetter, Department of Psychology, University of California, Los Angeles.

Family bonds are important in all human societies, but the ways of expressing value for family varies across cultures. *Familism* is one culturally grounded way of valuing family that emphasizes an ideal for family relationships to be warm, close, and supportive and that family be prioritized over self (e.g., Campos et al., 2008; Freeberg & Stein, 1996; Keefe, Padilla, & Carlos, 1979; Knouse, 1991; Steidel & Contreras, 2003; Marin, 1993; Sabogal, Marin, Otero-Sabogal, VanOss Marin, & Perez-Stable, 1987). Familism has been linked with outcomes that are relevant for psychological health, such as prosocial behavior (e.g., Calderón-Tena, Knight, & Carlo, 2011) and well-being (e.g., Schwartz et al., 2010), but also distress (e.g., Schwartz et al., 2010) and inflammatory markers (e.g., Fuligni et al., 2009). The goal of the present study was to fill a gap in the literature regarding *how* familism contributes to psychological health. Drawing from conceptual links between familism and close relationship processes, we tested the hypothesis that familism contributes to better psychological health by facilitating the relationship benefits of closeness and social support in a diverse U.S. university sample.

Family Relationships and Familism: Human Universals and Cultural Variation

Families are a universal feature of human social life, and high levels of cooperative, affiliative behavior are extensively observed among kin (Essock-Vitale & Maguire, 1985; Hamilton, 1964; Hrdy, 1999; Neyer & Lang, 2003). Among human and nonhuman primates, nurturing relationships with parents and siblings lead to more secure, socially competent individuals who grow to attain higher status and greater reproductive success (Baumrind, 1993; Donnellan, Larsen-Rife, & Conger, 2005; Hrdy, 1999). Unfortunately, the reverse is also true. Adverse family relationships that are high in conflict or cold and unsupportive contribute to poorer psychological and physical health across the life span (e.g., Repetti, Taylor, & Seeman, 2002).

Familism is broadly defined as a strong identification with and attachment to nuclear and extended family (e.g., Bardis, 1959; Sabogal et al., 1987). The construct was developed to describe observed differences in U.S. families of Latino and European cultural backgrounds (Keefe et al., 1979; Sabogal et al., 1987). Familism consists of social norms, personal attitudes, and behaviors (Keefe et al., 1979; Sabogal et al., 1987), but is typically measured through self-report scales that reflect the extent to which an individual endorses its central components: (a) a sense of obligation to family, (b) regarding family as a first source of emotional support, (c) valuing interconnectedness among family members, (d) taking family into account when making important decisions, (e) managing behavior to maintain family honor, and (f) willingly subordinating individual preferences for the benefit of family (Steidel & Contreras, 2003; Sabogal et al., 1987). Currently, familism is considered one of several family-related constructs that are prevalent in collectivist cultures that value prioritizing family over self (e.g., Abdou et al., 2010; Gaines, Marelich, Bledsoe, & Steers, 1997; Schwartz et al., 2010). For example, familism in Latino cultures and filial piety in Asian cultures are both associated with living in close proximity or shared households with family, contributing to family financial well-being through work or career choices, and

dividing time equitably between peers and family (e.g., Fuligni, Tseng, & Lam, 1999; Yeh & Bedford, 2003).

In the eyes of some theorists, it may seem that the interconnectedness and social support facets of familism are likely to be associated with better psychological health whereas putting family before self is likely to be associated with poorer psychological health. However, when Schwartz et al. (2010) administered the Steidel and Contreras (2003) Attitudinal Familism scale to diverse university samples across the United States, they found familism to be comprised of one overall factor that encompassed all the conceptually distinct subcomponents. Further, they found that familism and two related measures, communalism and filial piety, that respectively reflect family primacy in African and Asian cultures, clustered into a single latent factor. Of greatest relevance to this work, the overall family primacy factor was associated with both greater well-being and greater distress (Schwartz et al., 2010). In our view, this dual pattern can be clarified by taking into account the connection between familism and close relationship processes that are known to contribute to psychological health.

Familism, Closeness, Social Support, and Psychological Health

The emphasis that familism places on interconnectedness and social support dovetails with the documented characteristics of close relationships that are protective of psychological health. Closeness, for example, characterizes relationships in which others are incorporated into the self and, thus, subjectively interconnected (e.g., Aron, Aron, Tudor, & Nelson, 1991). Interactions with close others that are characterized by warmth and responsiveness signal to individuals that they are valued members of a mutually obligatory social network (e.g., Gable & Reis, 2006). Together, these processes set the foundation for perceived social support, defined as the feeling that one is loved and cared for and can count on others in times of need (e.g., Wills, 1991). Perceived support has a well-documented protective effect on both psychological and physical health, including effects on perceived stress and depressive symptoms (e.g., Cohen & Willis, 1985; Holt-Lunstad, Uchino, Smith, & Hicks, 2007; House, Landis, & Umberson, 1988; S. E. Taylor, 2011). Conversely, a lack of close and supportive relationships, stemming from either social isolation or troubled relationships, is associated with various adverse mental and physical health outcomes (e.g., Baumeister & Leary, 1995).

The conceptual links between familism and close relationship processes suggest that familism should be linked to better psychological health, to the extent that it facilitates closeness and perceived support. In line with this claim, familism has been linked to indices of close and supportive relationship behavior (e.g., Calderón-Tena et al., 2011; Z. E. Taylor, Larsen-Rife, Conger, & Widaman, 2012; Updegraff, McHale, Whiteman, Thayer, & Delgado, 2005). The cultural roots of the familism construct, however, also raise the possibility of additional complexities. On the one hand, cultures that highly value familism, such as that of U.S. Latinos, may set the stage for individuals to be higher in familism and obtain greater benefits for psychological health from closeness to family and perceived support. Latinos are typically higher in familism (e.g., Sabogal et al., 1987), and familism has been found to be more strongly associated with perceived support in U.S.-born and non-

U.S.-born Latino samples than in U.S. European background samples (Campos et al., 2008). On the other hand, familism overlaps with other culturally rooted family primacy values (Schwartz et al., 2010), and family relationships can be sources of closeness and support for all people (e.g., Hrdy, 1999). To explore both of these possibilities, we studied a U.S. sample of individuals of Latino, European, and Asian cultural backgrounds. This allowed for systematic comparison of the culture in which the study of familism originated and is most widely studied (Latinos) with two cultures whose variation in collectivism/individualism and family priority is well documented (i.e., European and Asian).

The literatures on familism and close relationships also point to the possibility of gender differences. Women are more likely to have a relational orientation than men (e.g., Cross & Madson, 1997; S. E. Taylor et al., 2000), and are often the family members who take the lead in maintaining family bonds (e.g., Hrdy, 1999; Updegraff et al., 2005). This could suggest that women will be higher in familism, and their psychological health may benefit more from the link of familism values with closeness and support than that of men. However, the emphasis that familism places on obligation and honor may require more caregiving from women and be more restricting for women than men because honor is upheld by women's limited interactions with men who are not family (Hirsch, 2003). These factors have been found to be a source of conflict between U.S. Latinas and their families (e.g., Raffaelli & Ontai, 2001). If so, the psychological health of women may benefit less from familism due to the acculturative stress that can result from this type of conflict (e.g., Crockett et al., 2007).

The Present Research

To address the gap in the literature on how familism contributes to psychological health, we used structural equation modeling (SEM) to (a) test whether familism contributes to better psychological health by facilitating closeness and social support, (b) examine whether the hypothesized relationships among variables is moderated by Latino, European, and Asian cultural backgrounds and predicted by gender, and (c) assess whether Latinos are higher in familism, as would be consistent with the cultural roots of the familism construct.

Figure 1 shows a diagram of the hypotheses we tested through SEM; circles represent constructs, squares represent measured variables, and straight lines with arrows pointing to the outcome variable indicate hypotheses. The direct effect hypotheses are indicated by Paths a–c: higher familism was expected to predict greater closeness to family members (Path a) and greater social support (Path b), and better psychological health (Path c). Consistent with the close relationship literature, we also predicted that greater family closeness would predict greater social support (Path d) and better psychological health (Path e), and greater social support would predict better psychological health (Path f). The indirect effect hypothesis of a relationship between familism and psychological health is indicated by Paths a, d, and f: higher familism was expected to predict better psychological health via higher closeness to family members and social support. We also hypothesized latent mean differences in the familism construct. Given familism's roots in describing Latino families, we expected that Latinos would report the highest levels of familism of the three cultural background groups. The possibility of mean differences in the other constructs was

explored. A final set of exploratory analyses examined gender as a predictor of these constructs (Paths g–j).

Hypotheses were tested using a structural equation multiple-group modeling approach. After establishing that there was evidence that the model fit for each individual group (Latino, Asian, and European backgrounds), we tested a series of three-group multiple-group models. These models tested whether cultural group moderated the measurement of the constructs or the prediction paths. This multiple-group model also tested for mean differences in familism, closeness, social support, and psychological health as a function of cultural group.

Method

Participants

One thousand two hundred and forty-five participants of Latino ($n = 218$), European ($n = 294$), and Asian ($n = 733$) cultural background completed the study. The sample was majority women (80%), and age ranged from 18–38 years ($M = 19.93$, $SD = 2.106$). The majority of the Latino and Asian samples were second generation. For the Latino subsample, 80% reported being born in the United States, and 50% reported that both parents were born outside of the United States. For the Asian subsample, 72% reported being born in the United States, and 62% reported that both parents were born outside of the United States. Ninety percent of Latino and Asian participants reported that they, a parent, or grandparent spoke a language other than English in the home. The Latino sample was majority Mexican, but also included participants of Central and South American backgrounds. Similarly, the Asian sample was majority East Asian, but included participants of Southeast Asian and Pacific Island backgrounds. In contrast, over 90% of the European sample was at least third generation, and over 80% reported that English was the only language spoken in their home.

Procedure

Participants were recruited at two large and demographically diverse California university campuses through departmental research participation pools and flyers posted at various locations on both campuses. Persons who contacted the research team to express interest in the study received an email with a short study description and a link to the online survey to be completed at a location of their choice and convenience. The first page of the online survey contained an information sheet describing study and compensation procedures in detail. Participants were asked to indicate their consent by proceeding with the survey. The last page of the online survey provided instructions for receiving compensation of either partial class credit or \$10. All study procedures were approved by the University of California, Los Angeles, and the University of California, Irvine, institutional review boards.

Measures

Demographics—Participants reported their age, cultural background, country of birth, and the birth country of their mother and father. To better understand exposure to cultural background, participants also reported whether a non-English language was spoken in their childhood home.

Familism—We measured familism with the two most widely used self-report scales of this construct (Steidel & Contreras, 2003; Sabogal et al., 1987). These scales were developed specifically to capture a Latino approach to familism, but the Steidel and Contreras (2003) scale has been found to have an equivalent factor structure and associations to psychological well-being and distress in Latino, European, and Asian background samples (Schwartz et al., 2010).

The 14-item Sabogal et al. (1987) Familism Scale taps three factors: (a) familial obligations (e.g., “One should help economically with the support of younger brothers and sisters”), (b) family as a source of support (e.g., “When one has problems, one can count on the help of relatives”), and (c) family as a referent (e.g., “Much of what a son or daughter does should be done to please the parents”). The 18-item Attitudinal Familism Scale (Steidel & Contreras, 2003) taps four familism factors: (a) family support (e.g., “A person should live near his or her parents and spend time with them on a regular basis”), (b) family interconnectedness (e.g., “A person should often do activities with his or her immediate and extended families, e.g., eat meals, play games, go somewhere together, or work on things together”), (c) family honor (e.g., “A person should feel ashamed if something he or she does dishonors the family name”), and (d) subjugation of self (e.g., “A person should respect his or her older brothers and sisters regardless of their differences in views”). For both scales, participants rated each item on a 5-point Likert scale to indicate agreement or disagreement (1 = *strongly disagree* and 5 = *strongly agree*). Item ratings were averaged to create subscale scores where higher scores indicated higher familism. Cronbach’s alpha coefficient for both scales was moderate in the overall sample and within each cultural background group (.76–.87).

Closeness to family members—Family closeness was assessed with the Inclusion of Self in Other (IOS) Scale that operationalizes closeness in terms of perceived overlap between self and a specific other with a single item (Aron, Aron, & Smollan, 1992). Measuring the extent to which another is incorporated into the self captures the interdependence that characterizes definitions of closeness and, for this reason, the IOS is widely used in relationship research (e.g., Aron, Mashek, & Aron, 2004). Participants selected one of seven increasingly overlapping circles (1 = *non-overlapping* and 7 = *almost complete overlap*) to represent closeness between themselves and their mother, father, and siblings, respectively. These three ratings were used as indicators of the closeness with family members construct in analyses.

Perceived social support—The Medical Outcomes Study (MOS) Social Support Survey (Sherbourne & Stewart, 1991) is an established measure of general perceived social support that consists of 19 items that tap four types of social support: (a) affectionate support (expressions of love and affection; three items); (b) emotional/informational support (expressions of positive affect and understanding, offering advice and guidance; eight items); (c) positive social interaction support (availability to do fun things; four items); and (d) tangible support (material aid or behavioral assistance; four items). Participants rated each item using a Likert scale to indicate agreement or disagreement (1 = *none of the time* and 5 = *all of the time*). Item ratings were averaged to create subscale scores where higher

scores indicated higher perceived social support. Cronbach's alpha coefficient for the subscales was moderate to high in the overall sample and within each cultural background group (.79–.97).

Psychological health—Psychological health was operationalized as a combination of perceived stress, general mental health, and depressive symptoms that can be indicative of poor psychological health. The three measures were scored so that higher scores indicated better psychological health (i.e., less stress, fewer symptoms of distress, higher well-being). Cronbach's alpha for the three scales ranged from .72–.96 in the overall sample as well as within each cultural background group and gender.

Perceived stress: The Perceived Stress Scale (PSS) is a widely used measure of perceptions that demands are exceeding resources (Cohen, Kamarck, & Mermelstein, 1983). A 10-item version of the PSS was used in this study to reduce participant burden. Items referred to stress perceptions of various kinds during the last month (e.g., “How often have you felt overwhelmed by demands? How often have you found that you could not cope with all the things you had to do?”). Participants rated each item using a 4-point Likert scale to indicate agreement or disagreement (1 = *never* and 4 = *always*). Item ratings were averaged to create scale scores.

General mental health: A five-item version of the Rand Mental Health Inventory (Berwick et al., 1991) was used to measure the following aspects of mental health: anxiety (i.e., been a very nervous person), depression (i.e., felt downhearted and blue), behavioral/emotional control (i.e., felt so down in the dumps that nothing could cheer you up), and general positive affect (e.g., been a happy person). Participants rated how they felt in the last month using a 5-point Likert scale (1 = *none of the time* and 5 = *all of the time*). Item ratings were averaged to create scale scores.

Depressive symptoms: A nine-item form of the Center for Epidemiologic Studies–Depression Scale (CES-D; Radloff, 1977; Santor & Coyne, 1997) was used to measure depressive symptoms (e.g., “I felt sad,” “I felt that everything I did was an effort”) during the last 7 days while reducing participant burden. The CES-D is a well validated, widely used scale of depressive symptoms. Participants rated each item using a 4-point Likert scale (0 = *rarely or none of the time* and 3 = *most or all of the time*). Item ratings were averaged to create scale scores.

Results

Analysis Plan

Hypotheses were tested using multiple-group analysis within a structural equation model (Ullman, 2013). The models were estimated using maximum likelihood estimation, and evaluated using the Satorra–Bentler scaled chi-square that is appropriate for models estimated with nonnormal data, as in this study (Satorra & Bentler, 2001). Goodness of fit of the models was evaluated with both the root mean square error of approximation (RMSEA) and the comparative fit index (CFI); good-fitting models have RMSEAs below .06 and CFI indices above .95 (Ullman, 2013).

In multiple-group analysis within a structural equation model, a series of models are tested. First, good-fitting models are established separately in each subgroup of interest. In this study, the subgroups were the Latino, European, and Asian samples. The fit of the model and the significance of the prediction paths are tested within each model. The multiple-group models are then examined to test for differences across the subgroups. This multiple-group model is called the *baseline model*. In the baseline model, all of the path coefficients are allowed to vary across groups. Hypotheses about cultural background as a moderator are then tested by conducting a series of analyses where paths are constrained by statistically forcing the coefficients to be equal across the groups. Typically, this hypothesis testing process begins by first testing the measurement model that specifies the relationships among the measured variables and the constructs across the three groups. The equality of the structural model that specifies the predictive relationships between the constructs in the three subgroups is then tested. The hypothesized model tested in each cultural group is presented in Figure 1. The indicators (i.e., measured variables) of the constructs are reported in Table 1. After testing hypotheses about the predictive relationships in the model, means of the latent variables are estimated and statistically compared. EQS, Version 6.1, was employed for all analyses. Table 1 shows the means, standard deviations, and the percentage of responses missing for all study measures. The zero-order correlation matrix of all measured variables for the overall sample is provided in the Appendix.

Tests of Model Assumptions

There was evidence that multivariate normality was violated in each group, Mardia's normalized coefficients in the Latino sample = 10.31, European sample = 13.39, and Asian sample = 16.52 ($ps < .001$). There were no outliers. There were few missing data (see Table 1). Given the nonnormality, the missing data were estimated using direct maximum likelihood (Yuan, 2009; Yuan & Bentler, 2010). All models were estimated with maximum likelihood estimation and evaluated with the Satorra–Bentler scaled chi-square (Satorra & Bentler, 2001). Standard errors were adjusted to the extent of the nonnormality (Bentler & Dijkstra, 1985). There were no substantive differences in analyses that included imputed data and analyses that only included unimputed complete cases. Therefore, the results reported here are based on analyses with the complete cases only without imputation. This final sample consisted of 1,072 participants, comprised of Latino ($n = 173$), European ($n = 257$), and Asian ($n = 642$) cultural backgrounds.

Separate Structural Equation Models

The hypothesized model (see Figure 1) was tested for each group individually, and there was evidence that the model fit each group well: Latino sample, Satorra–Bentler $\chi^2(N = 173, 123) = 156.83, p = .01, CFI = .97, RMSEA = .04$; European sample Satorra–Bentler $\chi^2(N = 257, 123) = 201.59, p < .05, CFI = .96, RMSEA = .05$; Asian sample, Satorra–Bentler $\chi^2(N = 642, 123) = 462.90, p < .05, CFI = .93, RMSEA = .07$. The factor loadings are presented in Table 2.

Multiple-Group Modeling Series of Models

Did cultural background serve as a moderator of the relationship between the measured indicators and the constructs?—To begin the process of testing the effects of cultural background on the model, a baseline model was estimated in which all the paths (factor loadings and regression coefficients) were allowed to vary across the three groups. This model fit the data well, Satorra–Bentler $\chi^2(N = 1,074, 369) = 817.29, p < .05$, CFI = .94, RMSEA = .06, Akaike information criterion (AIC) = 79.29, consistent Akaike information criterion (CAIC) = -2,127.70. Next, we tested a model in which all the paths from the measured variables to the constructs were constrained to equality. This tested the hypothesis that the measurement structure for the constructs was the same across the three groups. Although this model fit the data well, Satorra–Bentler $\chi^2(N = 1,074, 395) = 871.66, p < .05$, CFI = .94, RMSEA = .06, AIC = 81.62, CAIC = -2,280.87, a chi-square difference test computed with scaling correction to compare these nested models indicated that the model was significantly degraded when the measurement model was fully constrained, Satorra–Bentler $\chi^2_{\text{difference}}(26) = 54.58, p < .05$. In sum, there was an indication that some paths differed among the three cultural background groups.

To identify the paths that differed among cultural background groups, we used the Lagrange multiplier univariate tests. Three paths were found to differ significantly between the three groups (see Table 2). First, the relationship between the Tangible Social Support subscale and overall social support was weaker for the Latino and Asian samples than for the European sample (unstandardized coefficient Latino and Asian sample = 0.81, $p < .05$, unstandardized coefficient European sample = 0.98, $p < .05$). That is, tangible social support was more strongly related to overall social support in the European sample than in the Latino and Asian samples. Second, the relationship between the Positive Social Interaction Support subscale and overall social support was stronger for the Latino and European samples than the Asian sample (unstandardized coefficient for the Latino and European sample = 1.00, $p < .05$, unstandardized coefficient for the Asian sample = 0.90, $p < .05$). That is, positive social interaction support was more strongly related to overall social support in the Latino and European samples than in the Asian sample. Third, the relationship between sibling closeness and family closeness was stronger for the Latino and European samples relative to the Asian sample (unstandardized coefficient for Latino and European sample = 1.16, $p < .05$, unstandardized coefficient for the Asian sample = 0.66, $p < .05$). That is, sibling and family closeness were more strongly interrelated in the Latino and European groups than in the Asian group. Allowing these three paths to be estimated separately in each group (e.g., dropping the constraint on equality) resulted in a model that did not significantly differ from the baseline model, Satorra–Bentler $\chi^2_{\text{difference}}(23) = 32.70, p > .05$.

Did cultural background moderate the relationship among constructs?—No, cultural background did not serve as a moderator of the structural relationships—the paths between constructs—in the models. The model with all of the paths between constructs fit the data well, Satorra–Bentler $\chi^2(N = 1,072, 458) = 953.48, p < .05$, CFI = .94, RMSEA = .06, and did not differ significantly from the model that allowed all the paths to be estimated

separately, Satorra–Bentler $\chi^2_{\text{difference}}(12)=14.94, p > .05$. The model with the paths between constructs and gender forced to be equal also fit the data well, Satorra–Bentler $\chi^2(N = 1,072, 466) = 957.13, p < .05$, CFI = .94, RMSEA = .05, and did not differ significantly from the model that allowed all the paths to be estimated separately, Satorra–Bentler $\chi^2_{\text{difference}}(8)=3.71, p > .05$.

Interpretation of the final multiple-group model prior to testing mean

differences—The final structural portion of the model prior to examination of latent mean differences is presented in Figure 2. The measurement model coefficients are presented in Table 2. For all three groups, stronger familism predicted greater family closeness and greater social support (Path a in hypothesized model, unstandardized coefficient = 0.90, $p < .05$; Path b in hypothesized model, unstandardized coefficient = 0.43, $p < .05$). Familism, however, did not directly significantly predict psychological health (Path c in hypothesized model, unstandardized coefficient = $-0.01, p > .05$). Family closeness significantly predicted greater social support (Path d in hypothesized model, unstandardized coefficient = 0.12, $p < .05$), but did not significantly predict psychological health (Path e in hypothesized model, unstandardized coefficient = 0.01, $p > .05$). Greater social support, however, did predict better psychological health (Path f in hypothesized model, unstandardized coefficient = 0.34, $p < .05$).

Women reported significantly greater familism (Path g in hypothesized model, unstandardized coefficient = 0.13, $p < .05$), more social support (Path i in hypothesized model, unstandardized coefficient = 0.42, $p < .05$), less family closeness (Path h in hypothesized model, unstandardized coefficient = $-0.23, p < .05$), and poorer psychological health (Path j in hypothesized model, unstandardized coefficient = $-0.23, p < .05$) than men. The standardized coefficients for these relationships are presented separately for each group in Figure 2. Differences in the standardized coefficient values by cultural group were not statistically significant.

Mediation Analyses: Did Closeness and Social Support Serve as Intervening Variables?

—Indirect effect hypotheses were evaluated with Sobel (1982) tests; the coefficients for indirect effects are reported below, but not shown in Figure 2 per presentation convention. As hypothesized, familism indirectly predicted better psychological health (unstandardized coefficient = 0.19, $p < .05$). Specifically, higher familism predicted more family closeness and more social support and this, in turn, was associated with better psychological health. Familism was also indirectly related to social support (unstandardized coefficient = 0.10, $p < .05$). Higher familism was associated with more family closeness, which was associated with more social support. Higher family closeness was also indirectly associated with better psychological health (unstandardized coefficient = 0.04, $p < .05$). Specifically, higher family closeness was associated with more social support, which was associated with better psychological health. These findings are consistent with the hypothesis that familism contributes to better psychological health by facilitating closeness to family and perceived social support.

Gender was indirectly related to both psychological health and social support (unstandardized coefficient for psychological health = 0.15, $p < .05$; unstandardized coefficient for social support = 0.11, $p < .05$). Women reported higher familism, which in turn predicted more family closeness and more social support. Higher social support was associated with better psychological health.

Were there latent mean differences in the constructs by cultural background?

—Latent means were added to the model, and model comparisons were used to examine the possibility of Latino–European, Latino–Asian, and European–Asian mean differences. All the models fit the data, Latino–European comparison model, Satorra–Bentler $\chi^2(N = 430, 318) = 451.85$, $p < .05$, CFI = .95, RMSEA = .05; Latino–Asian comparison model, Satorra–Bentler $\chi^2(N = 815, 283) = 740.84$, $p < .05$, CFI = .94, RMSEA = .06; European–Asian comparison model, Satorra–Bentler $\chi^2(N = 899, 282) = 887.22$, $p < .05$, CFI = .94, RMSEA = .07.

As the means in Table 1 indicate, the Latino sample reported significantly higher familism than the European sample. However, this was the only difference between the two groups. The Latino and European samples did not differ significantly in family closeness, social support, or psychological health. When compared with the Asian sample, the Latino sample reported significantly higher familism and significantly higher social support. There were no significant differences (at $p < .05$) in family closeness or psychological health between the Latino and Asian samples. Finally, when the European and Asian samples were compared, the Asian sample reported higher familism, less social support, and less family closeness than the European sample, but the two groups did not differ in psychological health.

Discussion

As hypothesized, familism was linked to better psychological health through intervening associations with closeness to family members and social support. Further, these effects did not vary by cultural background, and were observed in the Latino, European, and Asian samples. In line with the Latino roots of familism, Latinos reported the highest mean levels of familism of the three groups. Also in line with previous research, women reported higher familism, higher support, and lower psychological health. These findings advance the study of familism in two ways. First, they delineate a mediating pathway through relationship benefits that elucidates how familism contributes to psychological health. This pathway has implications for understanding familism's links with both positive and negative outcomes when relationships go well and negative outcomes when they do not. Second, these results provide new evidence of the relevance of the familism construct across groups that vary in the extent to which family is prioritized over self.

Familism contributed to psychological health by facilitating closeness and support. We did not find that familism was directly linked to psychological health. That is, valuing close, warm and supportive relationships and prioritizing family over self was not itself sufficient to benefit psychological health. Neither was closeness. Familism and closeness only contributed to better psychological health *through* links to perceived social support. Perceived support, however, was directly linked to better psychological health. This pattern,

indicating that support was the key link to better psychological health, is in line with a large literature on the robust benefit of perceived support for psychological health (e.g., Cohen & Wills, 1985; S. E. Taylor, 2011).

These findings are relevant for understanding why previous research has found familism to be associated with both better and poorer psychological health. People who are high in familism value close and supportive family relationships, feel closeness and support from their relationships, and their psychological health is benefited by these processes. Circumstances that limit the benefits of familism values, however, are easy to envision. Low socioeconomic status (SES), for example, can increase stress and conflict (Maisel & Karney, 2012), lead to family separations (Menjívar & Abrego, 2009), or impose caregiving demands so overwhelming that psychological and physical health suffer (Fuligni et al., 2009; Rumbaut, 1997). These difficult scenarios may be especially distressing to someone high in familism, because they violate positive expectations for family relationships or overwhelm an individual's ability to meet their family obligations. Under circumstances characterized by conflict or other types of distress, familism may well heighten the risk of poorer mental health (e.g., Hernández, Ramírez García, & Flynn, 2010; Zayas & Pilat, 2008).

The strong fit of our model across cultural backgrounds is consistent with the findings of Schwartz et al., (2010), and they suggest that familism is a way of valuing family that is more universal than group specific (e.g., Hardway & Fuligni, 2006). It is particularly notable that the latent familism construct—derived from two measures originally developed to tap familism in Latinos and containing seven subscales used as indicators—did not differ by cultural background. Indeed, the measurement model indicated only three small differences by cultural background for the family closeness and social support constructs that did not degrade the structural model. We interpret this pattern as evidence of strong invariance in the variables we studied. We are mindful, however, that the Latino and Asian samples were mostly second generation, and a larger first-generation sample that was less acculturated to the United States may have yielded a different pattern. The obligation, honor, and self-subjugation facets of familism are at odds with cultural individualism (e.g., Sabogal et al., 1987; Markus & Kitayama, 1991), and other work has found that these factors are less linked with family closeness in U. S. European background samples, (e.g., Hardway & Fuligni, 2006).

Consistent with the origin of the familism construct, Latinos reported the highest levels of familism. This combination of higher familism in Latinos but similar structural links to psychological health across cultural background groups advances the understanding of familism as a construct that is broadly applicable but elevated in Latinos. However, factors that lead to higher familism in members of different groups still need to be better understood. There is ample evidence, for example, that Latino cultural practices promote familism values via behaviors that include living near, interacting frequently, and actively participating in networks of mutual assistance with family (e.g., Baca Zinn & Wells, 2000; Keefe, 1984; Sarkisian, Gerena, & Gerstel, 2007). These cultural practices may socialize Latinos to prioritize family over self and lead to higher familism in Latinos as a group. In contrast, people from more culturally individualist backgrounds may be less likely to be

socialized into familism and more likely to be high in familism when it reflects the personal preferences of the self (e.g., Cross & Madson, 1997; Phinney, Kim-Jo, Osorio, & Vilhjalmsson, 2005). This possibility can be examined with future research that simultaneously examines familism values and behaviors at individual and community levels (e.g., other family members, neighbors).

Our findings are also consistent with a large literature that suggests women are more likely to report both higher relational orientation and poorer mental health than men (e.g., Cross & Madson, 1997; Kiecolt-Glaser & Newton, 2001; S. E. Taylor et al., 2000). Women of all cultural backgrounds reported greater familism and support as well as less closeness and poorer psychological health than men. The higher familism of women, however, was indirectly associated with better psychological health via closeness and support. Overall, these patterns suggest that familism may be protective against women's greater tendency to experience poor mental health only insofar as it facilitates relationship quality in the form of closeness and support. Thus, these findings are more consistent with research that has shown women's mental health is particularly responsive to the quality of their relationships (e.g., Kiecolt-Glaser & Newton, 2001) than the possibility that women from backgrounds that emphasize familism may benefit less from this cultural value due to acculturative stress (e.g., Crockett et al., 2007).

The strengths of this work include the use of multiple-group modeling to test how familism contributes to better psychological health and our large sample of participants from Latino, European, and Asian backgrounds. However, these data were cross-sectional and, therefore, the direction of effects could not be determined. It is possible that people who have good family relationships and better psychological health are more likely to be high in familism, whereas people with poor psychological health may have more difficult family relationships and lower familism, although this seems an unlikely explanation for the findings. Also, our university sample included too few foreign-born participants to examine nativity or acculturation as moderators. The literature indicates that familism is relevant for people inside and outside of university settings, but future research is needed to examine the extent to which these findings generalize to non-university samples. Finally, the psychological health measures leaned heavily to distress; only two items addressed the well-being side of psychological health.

The construct of familism was developed to describe family relationships in Latinos and the first waves of familism research compared mean levels of familism in Latinos and non-Latinos. Today, familism is understood to be relevant to people of diverse backgrounds and for a range of outcomes spanning from education to health in which family relationships are implicated. As the study of familism moves forward, many questions remain, including how members of different cultural backgrounds develop high familism values, how familism varies within families (e.g., among siblings), and how the indirect link of familism with psychological health is affected by social circumstances (e.g., SES). To generate a more complete understanding of familism, studies are needed that sample from communities with different life experiences than university samples, use longitudinal designs to capture how familism values contribute to outcomes over time, and include multiple members of the

same family so that familism can be better understood in the context of family specific dynamics.

Conclusion

Our findings highlight the utility of connecting the literatures on familism and close relationships. It is now widely recognized that warm, close, and supportive relationships are associated with longer, healthier, and happier lives (e.g., Kiecolt-Glaser & Newton, 2001), whereas relationships characterized by neglect, conflict, and violence negatively impact psychological and physical health (e.g., Repetti et al., 2002). In an analogous way, familism per se is not necessarily beneficial. The extent to which familism facilitates relationship benefits, however, is likely to be highly beneficial and worthy of additional study.

Acknowledgments

This project was partially supported (Ullman) by NIDA DA-01070-37. We thank Linda Gallo and the Dunkel Schetter UCLA lab for their feedback on earlier drafts of this article.

References

- Abdou CM, Dunkel Schetter C, Campos B, Hilmert CJ, Dominguez TP, Hobel CJ, Sandman C. Communalism predicts prenatal affect, stress, and physiology better than ethnicity and socioeconomic status. *Cultural Diversity and Ethnic Minority Psychology*. 2010; 16:395–403.10.1037/a0019808 [PubMed: 20658883]
- Aron A, Aron EN, Smollan D. Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*. 1992; 63:596–612.10.1037/0022-3514.63.4.596
- Aron A, Aron EN, Tudor M, Nelson G. Close relationships as including other in the self. *Journal of Personality and Social Psychology*. 1991; 60:241–253.10.1037/0022-3514.60.2.241
- Aron, AP.; Mashek, DJ.; Aron, EN. Closeness as including other in the self. In: Mashek, DJ.; Aron, A., editors. *Handbook of closeness and intimacy*. Mahwah, NJ: Erlbaum; 2004. p. 27-41.
- Baca Zinn, M.; Wells, B. Diversity within Latino families: New lessons for family social science. In: Demo, DH.; Allen, KR.; Fine, MA., editors. *The handbook of family diversity*. New York, NY: Oxford University Press; 2000. p. 252-273.
- Bardis PD. A familism scale. *Marriage and Family Living*. 1959; 21:340–341.10.2307/347107
- Baumeister RF, Leary MR. The need to belong: Desire for interpersonal attachment as a fundamental human motivation. *Psychological Bulletin*. 1995; 117:497–529.10.1037/0033-2909.117.3.497 [PubMed: 7777651]
- Baumrind D. The average expectable environment is not good enough: A response to Scarr. *Child Development*. 1993; 64:1299–1317.10.2307/1131536 [PubMed: 7693400]
- Bentler, PM.; Dijkstra, T. Efficient estimation via linearization in structural models. In: Krishnaiah, PR., editor. *Multivariate analysis VI*. Amsterdam, Netherlands: North-Holland; 1985. p. 9-42.
- Berwick DM, Murphy JM, Goldman PA, Ware JE, Barsky AJ, Weinstein MC. Performance of a five-item mental health screening test. *Medical Care*. 1991; 29:169–176.10.1097/00005650-199102000-00008 [PubMed: 1994148]
- Calderón-Tena CO, Knight GP, Carlo G. The socialization of prosocial behavioral tendencies among Mexican American adolescents: The role of familism values. *Cultural Diversity and Ethnic Minority Psychology*. 2011; 17:98–106.10.1037/a0021825 [PubMed: 21341902]
- Campos B, Dunkel Schetter C, Abdou CM, Hobel C, Glynn L, Sandman C. Familialism, social support, and stress: Positive implications for pregnant Latinas. *Cultural Diversity and Ethnic Minority Psychology*. 2008; 14:155–162.10.1037/1099-9809.14.2.155 [PubMed: 18426288]

- Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *Journal of Health and Social Behavior*. 1983; 24:385–396.10.2307/2136404 [PubMed: 6668417]
- Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. *Psychological Bulletin*. 1985; 98:310–357.10.1037/0033-2909.98.2.310 [PubMed: 3901065]
- Crockett LJ, Iturbide MI, Torres Stone RA, McGinley M, Raffaelli M, Carlo G. Acculturative stress, social support, and coping: Relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology*. 2007; 13:347–355.10.1037/1099-9809.13.4.347 [PubMed: 17967103]
- Cross SE, Madson L. Models of the self: Self-construals and gender. *Psychological Bulletin*. 1997; 122:5–37.10.1037/0033-2909.122.1.5 [PubMed: 9204777]
- Donnellan MB, Larsen-Rife D, Conger RD. Personality, family history, and competence in early adult romantic relationships. *Journal of Personality and Social Psychology*. 2005; 88:562–576.10.1037/0022-3514.88.3.562 [PubMed: 15740446]
- Essock-Vitale SM, McGuire MT. Women's lives viewed from an evolutionary perspective II: Patterns of helping. *Ethology & Sociobiology*. 1985; 6:155–173.10.1016/0162-3095(85)90028-7
- Freeberg AL, Stein CH. Felt obligation toward parents in Mexican-American and Anglo-American young adults. *Journal of Social and Personal Relationships*. 1996; 13:457–471.10.1177/0265407596133009
- Fuligni AJ, Telzer EH, Bower J, Irwin M, Kiang L, Cole SW. Daily family assistance and inflammation among adolescents from Latin American and European backgrounds. *Brain, Behavior, and Immunity*. 2009; 23:803–809.10.1016/j.bbi.2009.02.021
- Fuligni AJ, Tseng V, Lam M. Attitudes toward family obligations among American adolescents with Asian, Latin American, and European backgrounds. *Child Development*. 1999; 70:1030–1044.10.1111/1467-8624.00075
- Gable, SL.; Reis, HT. Intimacy and the self: An iterative model of the self and close relationships. In: Noller, P.; Feeney, JA., editors. *Close relationships: Functions, forms, and processes*. Hove, England: Psychology Press; 2006. p. 211-225.
- Gaines SOJ, Marelich WD, Bledsoe KL, Steers WN. Links between race/ethnicity and cultural values as mediated by racial/ ethnic identity and moderated by gender. *Journal of Personality and Social Psychology*. 1997; 72:1460–1476.10.1037/0022-3514.72.6.1460 [PubMed: 9177025]
- Hamilton WD. The genetical evolution of social behavior, parts 1 and 2. *Journal of Theoretical Biology*. 1964; 7:1–52.10.1016/0022-5193(64)90038-4 [PubMed: 5875341]
- Hardway C, Fuligni A. Dimensions of family connectedness among adolescents with Mexican, Chinese, and European backgrounds. *Developmental Psychology*. 2006; 42:1246–1258.10.1037/0012-1649.42.6.1246 [PubMed: 17087556]
- Hernández B, Ramírez García JI, Flynn M. The role of Familism in the relation between parent–child discord and psychological distress among emerging adults of Mexican descent. *Journal of Family Psychology*. 2010; 24:105–114.10.1037/a0019140 [PubMed: 20438185]
- Hirsch, JS. *A courtship after marriage: Sexuality and love in Mexican transnational families*. Berkeley and Los Angeles, CA: University of California Press; 2003.
- Holt-Lunstad J, Uchino BN, Smith TW, Hicks A. On the importance of relationship quality: The impact of ambivalence in friendships on cardiovascular functioning. *Annals of Behavioral Medicine*. 2007; 33:278–290.10.1007/BF02879910 [PubMed: 17600455]
- House JS, Landis KR, Umberson D. Social relationships and health. *Science*. 1988; 241:540–545.10.1126/science.3399889 [PubMed: 3399889]
- Hrdy, SB. *Mother nature: A history of mothers, infants, and natural selection*. New York, NY: Pantheon; 1999.
- Keefe SE. Real and ideal extended familism among Mexican Americans and Anglo Americans: On the meaning of “close” family ties. *Human Organization*. 1984; 43:65–70.
- Keefe SE, Padilla AM, Carlos ML. The Mexican-American extended family as an emotional support system. *Human Organization*. 1979; 38:144–152.10.1525/ae.1979.6.2.02a00070
- Kiecolt-Glaser JK, Newton TL. Marriage and health: His and hers. *Psychological Bulletin*. 2001; 127:472–503.10.1037/0033-2909.127.4.472 [PubMed: 11439708]

- Knouse SB. Social support for Hispanics in the military. *International Journal of Intercultural Relations*. 1991; 15:427–444.10.1016/0147-1767(91)90048-L
- Maisel NC, Karney BR. Socioeconomic status moderates associations among stressful events, mental health, and relationship satisfaction. *Journal of Family Psychology*. 2012; 26:654–660.10.1037/a0028901 [PubMed: 22686266]
- Marin, G. Influence of acculturation on familism and self-identification among Hispanics. In: Bernal, ME.; Knight, GP., editors. *Ethnic identity: Formation and transmission among Hispanics and other minorities*. Albany, NY: SUNY Press; 1993. p. 181-196.
- Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotion and motivation. *Psychological Review*. 1991; 98:224–253.10.1037/0033-295X.98.2.224
- Menjívar, C.; Abrego, L. Parents and children across borders: Legal instability and intergenerational relations in Guatemalan and Salvadoran families. In: Foner, N., editor. *Across generations: Immigrant families in America*. New York, NY: New York University Press; 2009. p. 160-189.
- Neyer FJ, Lang FR. Blood is thicker than water: Kinship orientation across the life span. *Journal of Personality and Social Psychology*. 2003; 84:310–321.10.1037/0022-3514.84.2.310 [PubMed: 12585806]
- Phinney JS, Kim-Jo T, Osorio S, Vilhjálmsdóttir P. Relatedness in adolescent-parent disagreements: Ethnic and developmental factors. *Journal of Adolescent Research*. 2005; 20:8–39.10.1177/0743558404271237
- Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1977; 1:385–401.10.1177/014662167700100306
- Raffaelli M, Ontai LL. ‘She’s 16 years old and there’s boys calling over to the house’: An exploratory study of sexual socialization in Latino families. *Culture, Health & Sexuality*. 2001; 3:295–310.10.1080/13691050152484722
- Repetti RL, Taylor SE, Seeman TE. Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin*. 2002; 128:330–366.10.1037/0033-2909.128.2.330 [PubMed: 11931522]
- Rumbaut, RG. Ties that bind: Immigration and immigrant families in the United States. In: Booth, A.; Crouter, AC.; Landale, NS., editors. *Immigration and the family: Research and policy on US immigrants*. Mahwah, NJ: Erlbaum; 1997. p. 3-46.
- Sabogal F, Marin G, Otero-Sabogal R, VanOss Marin B, Perez-Stable EJ. Hispanic familism and acculturation: What changes and what doesn’t? *Hispanic Journal of Behavioral Sciences*. 1987; 9:397–412.10.1177/07399863870094003
- Santor DA, Coyne JC. Shortening the CES-D to improve its ability to detect cases of depression. *Psychological Assessment*. 1997; 9:233–243.10.1037/1040-3590.9.3.233
- Sarkisian N, Gerena M, Gerstel N. Extended family integration among Euro and Mexican Americans: Ethnicity, gender, and class. *Journal of Marriage and Family*. 2007; 69:40–54.10.1111/j.1741-3737.2006.00342.x
- Satorra A, Bentler PM. A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*. 2001; 66:507–514.10.1007/BF02296192
- Schwartz SJ, Weisskirch RS, Hurley EA, Zamboanga BL, Park IJK, Kim SY, Greene AD. Communalism, familism, and filial piety: Are they birds of a collectivist feather? *Cultural Diversity and Ethnic Minority Psychology*. 2010; 16:548–560.10.1037/a0021370 [PubMed: 21058818]
- Sherbourne CD, Stewart AL. The MOS social support survey. *Social Science & Medicine*. 1991; 32:705–714.10.1016/0277-9536(91)90150-B [PubMed: 2035047]
- Sobel, ME. Asymptotic confidence intervals for indirect effects in structural equation models. In: Leinhardt, S., editor. *Sociological methodology*. Washington DC: American Sociological Association; 1982. p. 290-312.
- Steidel AGL, Contreras JM. A new Familism scale for use with Latino populations. *Hispanic Journal of Behavioral Sciences*. 2003; 25:312–330.10.1177/0739986303256912
- Taylor, SE. Social support: A review. In: Friedman, HS., editor. *Oxford handbook of health psychology*. New York, NY: Oxford University Press; 2011. p. 189-214.

- Taylor SE, Klein LC, Lewis BP, Gruenewald TL, Gurung RAR, Updegraff JA. Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or flight. *Psychological Review*. 2000; 107:411–429.10.1037/0033-295X.107.3.411 [PubMed: 10941275]
- Taylor ZE, Larsen-Rife D, Conger RD, Widaman KF. Familism, interparental conflict, and parenting in Mexican-origin Families: A cultural–contextual framework. *Journal of Marriage and Family*. 2012; 74:312–327.10.1111/j.1741-3737.2012.00958.x [PubMed: 22736810]
- Ullman, JB. Structural equation modeling. In: Tabachnick, BG.; Fidell, LS., editors. *Using multivariate statistics*. 6. New York, NY: Allyn Bacon; 2013. p. 676-731.
- Updegraff KA, McHale SM, Whiteman SD, Thayer SM, Delgado MY. Adolescent sibling relationships in Mexican American families: Exploring the role of familism. *Journal of Family Psychology*. 2005; 19:512–522.10.1037/0893-3200.19.4.512 [PubMed: 16402866]
- Wills, TA. Social support and interpersonal relationships. In: Clark, MS., editor. *Prosocial behavior*. Newbury Park, CA: Sage; 1991. p. 265-289.
- Yeh KH, Bedford O. A test of the dual filial piety model. *Asian Journal of Social Psychology*. 2003; 6:215–228.10.1046/j.1467-839X.2003.00122.x
- Yuan KH. Normal distribution based pseudo ML for missing data: With applications to mean and covariance structure analysis. *Journal of Multivariate Analysis*. 2009; 100:1900–1918.10.1016/j.jmva.2009.05.001
- Yuan KH, Bentler PM. Consistency of normal distribution based maximum likelihood estimates when data are missing at random. *American Statistician*. 2010; 64:263–267.10.1198/tast.2010.09203 [PubMed: 21197422]
- Zayas LH, Pilat AM. Suicidal behavior in Latinas: Explanatory cultural factors and implications for intervention. *Suicide and Life-Threatening Behavior*. 2008; 38:334–342.10.1521/suli.2008.38.3.334 [PubMed: 18611132]

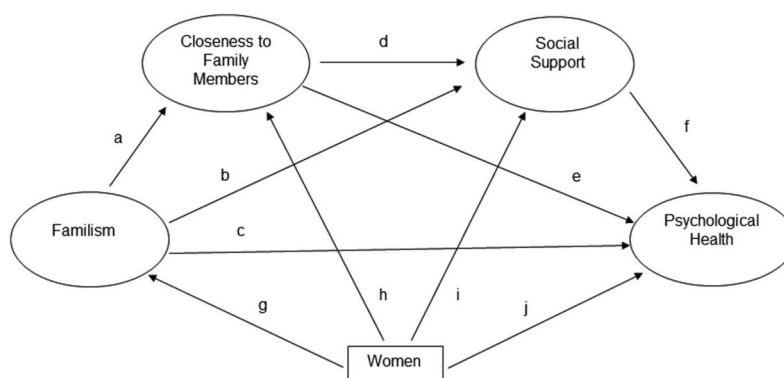
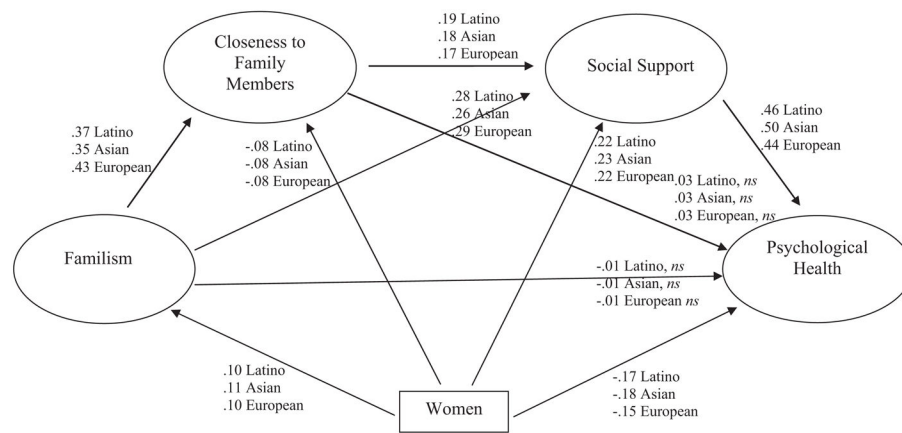


Figure 1. Hypothesized structural equation model. This figure presents only the hypothesized relationships among the structural components of the model.

**Figure 2.**

Final structural equation model with standardized coefficients for Latino, European, and Asian samples. All path coefficients are significant ($p < .05$), except where indicated. Residuals were estimated, but are not included in the diagram for ease of reading. The measurement model is presented in Table 2.

Table 1

Means, Standard Deviations, and Percentage of Responses Missing for Familism, Closeness to Family Members, Perceived Social Support, and Psychological Health Measures by Cultural Background

Measure	Latino background (n = 173)		European background (n = 257)		Asian background (n = 642)	
	M (SD)	% missing (n)	M (SD)	% missing (n)	M (SD)	% missing (n)
Familism						
Sabogal et al. (1987)						
Family obligations	4.29 (0.52)	0.9 (2)	4.02 (0.55)	0.7 (2)	4.17 (0.53)	0.8 (6)
Family as source of support	4.05 (0.75)	1.4 (3)	4.04 (0.76)	0.3 (1)	3.92 (0.73)	1.0 (12)
Family as referents	2.67 (0.74)	1.8 (4)	2.60 (0.74)	1.4 (4)	3.01 (0.69)	1.0 (7)
Steidel & Contreras (2003)						
Family support	4.00 (0.63)	3.7 (8)	3.69 (0.62)	1.7 (5)	3.98 (0.55)	0.5 (4)
Family interconnectedness	4.28 (0.57)	0.5 (1)	4.02 (0.63)	1.7 (5)	4.14 (0.56)	1.6 (12)
Family honor	2.69 (0.76)	1.8 (4)	2.42 (0.77)	0.3 (1)	2.97 (0.78)	1.1 (8)
Subjugation of self for family	3.41 (0.82)	1.8 (4)	3.16 (0.88)	0.0 (0)	3.42 (0.81)	1.5 (11)
Closeness to family members						
IOS mother	5.35 (1.71)	0.0 (0)	5.22 (1.78)	0.0 (0)	5.05 (1.62)	0.1 (1)
IOS father	3.87 (2.14)	0.0 (0)	4.21 (1.88)	0.3 (1)	4.10 (1.78)	0.1 (1)
IOS siblings	4.77 (1.77)	0.5 (1)	4.09 (2.21)	0.0 (0)	4.47 (2.02)	0.4 (3)
Perceived social support						
MOS affectionate support	4.35 (0.80)	1.4 (3)	4.28 (0.91)	0.7 (2)	4.07 (0.92)	0.8 (6)
MOS emotional/informational support	4.23 (0.84)	0.0 (0)	4.26 (0.83)	0.3 (1)	4.02 (0.83)	0.8 (6)
MOS positive social interaction support	4.35 (0.82)	0.0 (0)	4.28 (0.86)	0.3 (1)	4.18 (0.79)	0.4 (3)
MOS tangible support	4.05 (0.88)	1.4 (3)	4.01 (0.93)	0.0 (0)	3.84 (0.89)	0.8 (6)
Psychological health						
Perceived stress	2.73 (0.55)	2.7 (6)	2.72 (0.62)	1.7 (5)	2.90 (0.54)	1.4 (10)
Mental Health Inventory	2.24 (0.58)	2.3 (5)	2.28 (0.63)	0.7 (2)	2.34 (0.61)	0.7 (5)
Depression symptoms	1.88 (0.57)	4.1 (9)	1.89 (0.61)	2.0 (6)	2.02 (0.56)	2.7 (20)

Note. IOS ≤ Inclusion of Self in Other Scale; MOS ≤ Medical Outcomes Study Social Support Survey.

Table 2

Unstandardized and Standardized Measurement Model Coefficients

Measure	Latino background		European background		Asian background	
	(n = 173)		(n = 257)		(n = 642)	
	Unstandardized coefficients	Standardized coefficients	Unstandardized coefficients	Standardized coefficients	Unstandardized coefficients	Standardized coefficients
Familism						
Sabogal et al. (1987)						
Family obligations	0.89*	0.79	0.89*	0.80	0.89*	0.79
Family as source of support	1.05*	0.64	1.05*	0.70	1.05*	0.67
Family as referents	0.60*	0.39	0.60*	0.39	0.60*	0.39
Steidel & Contreras (2003)						
Family support	1.00	0.77	1.00	0.80	1.00	0.83
Family interconnectedness	0.90*	0.69	0.90*	0.72	0.90*	0.75
Family honor	0.57*	0.36	0.57*	0.36	0.57*	0.33
Subjugation of self for family	0.87*	0.49	0.87*	0.51	0.87*	0.49
Closeness to family members						
IOS mother	1.00	0.65	1.00	0.61	1.00	0.73
IOS father	1.17*	0.62	1.17*	0.67	1.17*	0.79
IOS siblings	1.16*	0.73	1.16*	0.56	0.66*	0.38
Perceived social support						
MOS affectionate support	1.04*	0.88	1.04*	0.90	1.04*	0.87
MOS emotional/informational support	1.00	0.92	1.00	0.89	1.00	0.92
MOS positive social interaction support	1.00*	0.89	1.00*	0.89	0.90*	0.86
MOS tangible support	0.81*	0.68	0.98*	0.81	0.81*	0.69
Psychological health						
Perceived stress	0.87*	0.81	0.87*	0.84	0.87*	0.81
Mental Health Inventory	1.00	0.89	1.00	0.91	1.00	0.86
Depression symptoms	0.89*	0.80	0.89*	0.86	0.89*	0.82

Note. Data in bold face indicate paths in the measurement model that differed among cultural background groups. IOS = Inclusion of Self in Other Scale; MOS = Social Support Survey.

*

Appendix

Zero-Order Correlations Among Study Variables for the Overall Sample ($N = 1,072$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Sabogal obligations ^a	—																	
2. Sabogal support ^b	.58	—																
3. Sabogal referents ^c	.24	.28	—															
4. Steidel support ^d	.67	.49	.41	—														
5. Steidel interconnectedness ^e	.53	.42	.30	.62	—													
6. Steidel honor ^f	.19	.15	.65	.37	.33	—												
7. Steidel subjugation of self ^g	.30	.28	.49	.44	.52	.60	—											
8. IOS mother	.16	.24	.18	.24	.24	.17	.22	—										
9. IOS father	.10	.20	.18	.17	.16	.19	.21	.49	—									
10. IOS siblings	.17	.17	.10	.16	.13	.13	.16	.29	.36	—								
11. PS affectionate ^h	.26	.27	.01	.20	.23	-.05	.08	.22	.16	.06	—							
12. PS emotional/info ⁱ	.25	.31	-.02	.20	.23	-.07	.07	.24	.18	.08	.79	—						
13. PS positive social interaction ^j	.30	.31	.01	.24	.25	-.06	.09	.20	.15	.08	.78	.79	—					
14. PS tangible ^k	.27	.28	.03	.24	.22	-.03	.03	.21	.15	.10	.65	.67	.63	—				
15. PH perceived stress	-.05	-.15	.05	-.05	-.08	.13	.03	-.11	-.09	-.08	-.28	-.32	-.28	-.23	—			
16. PH Mental Health Inventory	-.14	-.19	-.01	-.14	-.16	.08	-.05	-.12	-.11	-.12	-.35	-.37	-.35	-.28	.71	—		
17. PH depression symptoms	-.09	-.16	.01	-.06	-.11	.08	-.01	-.11	-.12	-.09	-.35	-.37	-.34	-.28	.69	.73	—	
18. Women	.06	.04	-.10	.04	.10	-.10	-.04	.01	-.07	-.03	.22	.19	.13	.17	.11	.04	.03	—

Note. Data in bold face represent indicators of latent factors in structural models. IOS = Inclusion of Self in Other Scale; PS = perceived support; PH = psychological health; MOS = Medical Outcomes Study.

^a Sabogal et al. (1987) family obligations.

^b Sabogal et al. (1987) family as source of support.

^c Sabogal et al. (1987) family as referents.

^d Steidel & Contreras (2003) family support.

^e Steidel & Contreras (2003) family interconnectedness.

f Steidel & Contreras (2003) family honor.
g Steidel & Contreras (2003) subjugation of self for family.
h MOS affectionate support.
i MOS emotional/informational support.
j MOS positive social interaction support.
k MOS tangible support.