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Culture and Family Process: Measures of Familism for Filipino and Korean American Parents

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Abstract

This study tests the psychometric properties of multiple survey items and scales that are either underused or newly developed to assess familism among Asian Americans. Using data collected from 150 Filipino and 188 Korean American parents (mostly mothers) in the Midwest region in 2013, the measures were examined for validity and reliability for each group and, when appropriate, for cross-cultural equivalence across the groups. Several scales and their items showed high quality psychometric properties and are ready for use to more accurately assess family process of each target group and to conduct comparative analyses. The findings also show that, contrary to the expectation, Filipino American families express more traditional aspects of familism than do Korean American families, and are more likely to reinforce traditional familism beliefs and behaviors among their children. This study reinforces a need for more empirical and subgroup specific research effort.

Keywords

Filipino American parents; Korean American parents; culture; immigration; familism

Familism, characterized by an emphasis on collective needs, interdependency and conformity, along with a deeply ingrained sense of obligation and orientation to the family, has received increasing scholarly attention as it has been shown to serve as a protective factor for certain subpopulations of youth (see, e.g., German et al., 2009; Corona et al., 2017). While familism is recognized as a hallmark of Hispanic culture (see, e.g., Schaefer, 2008, Schwartz, 2007, Killoren et al., 2014), with several scales validated for various Latino populations (Lugo-Steidel and Contreras, 2003), familism's central role among other collectivist ethnic groups has also been noted (Schwartz, 2007). Recently, the accelerated growth of the Asian American population (Pew Research Center, 2013) has merited a dedicated understanding of Asian American family processes in general and familism in particular.

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Familism is one of the most distinctive characteristics of Asian culture and is widely found across Asian cultures regardless of religion, traditional custom, and dominant philosophy. Emerging research suggests that familism may be determinative of developmental outcomes among Asian American youth. Asian American high school youth, in the aggregate, report better grades and lower rates of crimes, substance use, and risky sexual behaviors than youth of other racial-ethnic groups (Choi & Lahey, 2006; Grunbaum, Lowry, Kann, & Pateman, 2000; Jang, 2002). However, these external measures of adjustment belie the disproportionate rate of internalizing problems experienced by Asian American youth. Depression and suicide rates are significantly higher among Asian American youth than among youth of other backgrounds (Lipsicas & Mäkinen, 2010; Okazaki, 1997; Shibusawa, 2008). Several studies suggest that these disparate outcomes may be mediated in part by familism, among other family processes (Juang and Nguyen, 2009; Choi, 2008). Though many of these studies refer to Asian Americans in the aggregate, significant studies point to differences in both family processes as well as outcomes among Asian American subgroups. The important role of familism in adolescent outcomes compels a nuanced understanding of Asian American familism that differentiates among Asian American subgroups.

The study of familism among Asian American families is complicated by a two-fold methodological challenge. There are over 20 Asian American subgroups with distinct histories, languages, religious affiliations, and other markers of culture, and, the paucity of culture-specific constructs leaves critical aspects of familism unmeasured; familism measures developed with other populations are not likely to capture attitudes and behaviors unique to Asian Americans in the aggregate, as well as to particular subgroups of Asian Americans. Dynamic pathways of enculturation and acculturation are interweaved into Asian American family processes in subgroup-specific ways that may not be captured by conventional measures (Choi et al., 2013). Second, the application of familism measures to Asian American families without explicit verifications of validity to particular subgroups of Asian Americans obscures the possibility that these measures are not equivalent across groups (for exceptions, see, Choi & Harachi, 2002; Crockett, Veed, & Russell, 2010; Wu & Chao, 2011).

Researchers have validated several related ethno-specific components of Asian American family processes such as *guan* (Chao, 1994) and *qin* (Wu & Chao, 2005) among Chinese American families, and *ga-jung-kyo-yuk* among Korean American families (Choi, Kim, Pekelnicky, & Kim, 2013) that reflect a set of essential family-centric concepts, but these mostly focus on parenting behaviors while neglecting core familism values that may be most salient to Asian American families. Family obligation, a predominant aspect of familism, has been studied extensively (e.g., Fuligni, 2007) and several scales have been developed to capture Asian family values such as *Asian Cultural Values* (Kim, Atkinson, & Yang, 1999). The findings on these constructs have been inconsistent, in part because they were developed globally for Asians as an aggregate group. It is plausible that familism is a universal concept, but specificity regarding its practice and centrality among culturally distinct Asian American subgroups is necessary both for theoretically robust grounding as well as for praxis.

The present study addresses this methodological challenge by exploring the validity, reliability, and cross-cultural equivalence of existing and new measures of familism to

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Filipino and Korean American parents. Content and construct validity of eight scales of familism incorporating existing and new items were tested separately for both groups. Measures exhibiting comparable factor structures across groups were tested for higher levels of measurement invariance. That is, scales exhibiting configural invariance were further examined for metric, strong, and strict invariance across groups. Filipino and Korean Americans were chosen as the two groups for the ways in which their two cultures overlap and diverge, as explained more fully below. This study focuses on parental data to limit the differences in cultural values that may develop over first, second and succeeding generations of immigrants. Asian parents in the U.S. are predominantly foreign-born and their children are either U.S.-born or immigrated at an early age.

Filipino and Korean Americans

Filipino and Korean Americans share the label of "Asian American." They also share global indicators of socioeconomic status (Census, 2012), diminishing the possibility of a confounding class effect in the present study. However, the two groups are markedly different in acculturation and, likely, family processes (Choi, 2008; Min, 2005; Russell, Crockett, & Chao, 2010). Familism measures validated for Asian American families should reveal meaningful differences between the two Asian American subgroups. Korean parenting is largely influenced by Confucianism, Taoism, and Mahayana Buddhism (Sung, 2010). Confucian tradition emphasizes parental control and guidance of children (Hurh, 1998). Family hierarchy and age veneration are highly important (Min, 1998). Emphasis on education is also more pronounced among Korean Americans than among other ethnicities (Zhou & Kim, 2007). Filipino culture, in contrast, reflects the influence of a long history of colonization by Spain and the U.S., deemphasizing patriarchal authority and age stratification; family dynamics are more egalitarian than in Korean culture (Russell, Chu, Crockett, & Doan, 2010). Nonetheless, Filipino family dynamics are more hierarchical, gender-based, and strongly interdependent than those of White families, preserving traditional and core cultural values among Filipino Americans (Espiritu, 2003). High parental control and emphasis on family obligation continue to be evident, especially with respect to Filipina youth (Espiritu, 2003) and Filipino American parents, like Korean American parents, are less likely to express affection openly than are White parents (Choi & Kim, 2010; Russell, Chu, et al., 2010).

Filipino Americans and Korean Americans also notably differ in residential and integration patterns in the U.S. Korean Americans are among the most socially and culturally segregated groups (Center, 2015). Korean immigrant adults, even after years of settlement, remain largely monolingual, predominantly attend ethnic Korean churches or temples, socialize primarily with co-ethnics, and demonstrate high ethnic solidarity and pride (Min, 2006). Conversely, Filipino Americans, more than any other Asian American subgroup, are fluent in English, and score most highly on acculturation (Espiritu, 2003). These points of convergence and divergence may in part explain differences in academic achievement and other behaviors between Filipino American and Korean American youth.

In sum, Korean American families largely preserve traditional family processes while Filipino American families more often blend traditional and Western processes. The unique

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cultural positions of Korean American and Filipino American families recommends this study's reliance on these two groups to develop and validate familism measures among Asian Americans.

Measurement Invariance

Although a prerequisite for comparative studies of different cultural groups, empirical testing of measurement invariance is uncommon. Testing measurement invariance across Asian American subgroups is especially rare. Given that familism may play a critical role in the diverse outcomes among subgroups of Asian American youth (see, Choi, 2008), it is important to ascertain that familism measures are appropriate for the subgroups on which they are used. The meaning of constructs, even if similar in terms of face validity, may differ across groups. The resulting lack of measurement invariance is especially salient for Asian American subgroups, which are often assumed to share collectivist values without distinction. This study aims to test measurement invariance of the scales when their basic psychometric properties are established in each group.

Measurement invariance can be tested on multiple levels. The definitions and terms of various forms of invariance differ by authors (e.g., Choi, Mericle, & Harachi, 2006; Harachi, Choi, Abbott, Catalano, & Bliesner, 2006; Su Yeong Kim et al., 2014). This study is guided by two sets of definitions that are most widely used in the literature. Hui and Triandis (C. Harry Hui & Harry C. Triandis, 1985) organize the concept of invariance into conceptual, functional, item, and scalar, and Widaman and Reise (1997) into configural, metric, strong and strict. Conceptual invariance is defined as a construct having the same meaning (i.e., face validity) across groups and, prior to this study, was established through focus groups which are often used to support conceptual invariance. Functional invariance refers to constructs which share similar nomological networks across groups (i.e., groups with similar precursors, consequences, and correlates) and can be tested by examining the relationships between the scale and theoretically related constructs. Functional invariance in this study is to be examined by testing intercorrelations of the finalized scales. Similar to construct validity, tests of functional invariance can shed light on how different subdomains of familism are similarly or differently related with each other across groups and enhance our theoretical understanding of familism.

Item and scalar invariance is ultimately a test of factorial structure and precision of scales, which can be further divided into configural, metric, strong and strict. Item invariance includes both configural and metric invariance and is empirical evidence to demonstrate a construct has the same meaning across groups via a particular instrument. Configural invariance, the most basic level of factorial invariance, is supported when the scale is composed of the same items across groups (Widaman & Reise, 1997). If the magnitudes of factor loadings are similar, metric invariance is established, in which relations between the scale and other variables can be compared across groups. Scalar and strong invariance is attained when a construct is measured on the same metric, e.g., similar intercepts of the scale. Hence, a particular score on an instrument represents the same degree, intensity, or magnitude of the construct across groups. Scalar or strong invariance is necessary, for example, in order for the same score on a diagnostic tool to reflect the same level of severity

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across groups. Lastly, strict invariance is established if error terms of the scale items are equivalent. This study aims to ascertain at least metric invariance of the measures used with Filipino and Korean families. If the measures do not exhibit at least metric invariance, measures with otherwise sound psychometric properties can be used with each group but not for direct comparisons (at least, not without caution) between Filipino and Korean American families.

Present Study

Scale Development

Based on a series of phenomenological studies and multi-stage psychometric analyses, the current study tests and presents the psychometric properties of eight Asian American-specific domains of familism and domain items. Prior to this present study, several steps were taken to generate a series of familism items and scales, including (1) extensive literature review that included a search for existing Asian familism scales, (2) focus groups, (3) generation of near 100 preliminary items (4) review of those items by expert panels and the research team, and (5) pretest of the items. This process produced a total of 8 scales and 34 items to be tested for psychometric properties in this study.

We began with a comprehensive review of scales that were judged to measure Filipino and Korean familism. Three Filipino family values and parenting scales were identified: the *Panukat ng Pagkataong Pilipino* (PPP) and the *Panukat ng Ugali at Pagkatao* (PUP), both developed in the Philippines (Enriquez & Guanzon-Lapeña, 1985), and the *Enculturation Scale for Filipino Americans* (ESFA; del Prado & Church, 2010). The *ga-jung-kyo-yuk* measure for Korean Americans (Choi et al., 2013) was also selected for investigation. In addition, a total of six focus groups for Filipino Americans (three for each of parent and youth) and nine focus groups for Korean Americans (five parent and four youth groups) were conducted to generate information about family processes that the participants identified as uniquely Filipino or Korean. Nearly 100 additional items were generated through the analysis of qualitative data obtained via these focus groups as well as extensive literature review. Items were rendered in English, Tagalog, and Korean as appropriate.

Two five-member panels composed entirely of Korean Americans or Filipino Americans were recruited on the basis of bilingual/bicultural capacity, experience as a parent or working with parents and youth in the community, and an understanding of the research process. The panels reviewed the generated scales and the items for the etic/emic nature of the questions, the applicability of the situational context of the questions, and the accuracy of translation. We then examined each item for redundancy, length, level of difficulty, double-barreling, and ambiguity (DeVellis, 1991), retaining only those items that were believed to be central to the construct of Asian American familism. Scale items, including translated versions, were pre-tested using five Korean American parent-child dyads and five Filipino American dyads. The items were further edited, refined, or removed entirely based on the results of pre-tests.

The resulting 34-items, mapped onto 8 subdomains, or scales, of Asian familism, are shown in Table 1. This study tests multiple aspects of psychometric properties, including reliability

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and validity (content, construct, discriminant and divergent) as well as measurement invariance.

Method

Overview of the Project

This study uses survey data from the inaugural year of Midwest Longitudinal Study of Asian American Families (ML-SAAF). One hundred fifty five Filipino American youth and 151 Filipino American parents (133 Filipino parent-child dyads) and 188 Korean American youth and 186 Korean American parents (183 Korean parent-child dyads) from the Chicagoland area completed a self-administered survey. The surveys, available in paper-pencil and online-survey forms, collected either in person or by mail or via online when completed, were distributed to eligible participants based on youth age and the mother's ethnic heritage. The English version of the survey was translated into Tagalog and Korean, using a committee translation process. Multiple translators made independent translations of the same questionnaire and, at a consensus meeting, a committee reconciled discrepancies and agreed on a final version. Participants were given a gift card upon submitting a completed survey. Only data from surveys submitted by Korean and Filipino parents were used in the present study.

Sample Characteristics

The average age of parents was 46.72 (*SD*=6.81) for Filipinos and 46.56 (*SD*=4.32) for Koreans. The participating parents were predominantly mothers (83% of Koreans and 76% of Filipinos). One hundred percent of Korean and 90% of Filipino parents were foreign-born, with an average length of residence in U.S. of 19.43 years (*SD*=11.78) for Filipino and 16.11 years (*SD*=9.01) for Korean parents. Nearly 60% of Korean mothers and 80% of Filipino mothers had achieved a college education or higher. A significantly greater proportion of Korean parents (over 90%) were currently married compared to Filipino parents (67%). More Filipino than Korean parents reported being divorced, separated, or widowed (20.7% vs. 7.5%). The majority of parents worked either full time or part time, with 33.8% of Korean mothers, 9.7% of Korean fathers, 7% of Filipino mothers and 5.6% of Filipino fathers reported being currently unemployed. Only 11.3% of Filipino and 17.2% Korean families have received free/reduced-price school lunch. Forty-two percent of Korean parents and 35.9% of Filipino parents reported annual household incomes less than $49,999. These demographic characteristics are consistent with the findings of Census and national-level data such as Add Health that show Filipino and Korean American families to be highly educated and middle income families.

Analysis Strategy

Psychometric Properties—SPSS (v.22) and M*plus* (v 7.4) were used to test content and construct validity of eight scales of familism. Measures of familism were tested separately for each ethnic group. A finding of comparable factor structures across groups led to an examination of measurement invariance across groups (Wang & Wang, 2012).

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The content validity of each scale was tested by examining mean and standard deviations of each item and of the entire scale, internal consistency within the scale, and item-total correlation among items in the scale (Nunnally & Bernstein, 1994). To generate the measurement fit as a composite scale, confirmatory factor analyses (CFA) was conducted for each scale. CFA provides several model fit indices, such as c^2 statistics, Comparative Fit Indices [CFI >.90 indicating a good fit (Bentler, 1990)], and Root Mean Square Error of Approximation [RMSEA<.05 good fit, between .05 and .10 a fair to mediocre fit and >.10 a poor fit (MacCallum, Browne, & Sugawara, 1996)]. Items with near zero endorsement, item-total correlation less than .3 (Nunnally & Bernstein, 1994), and factor loading less than .4 (Floyd & Widaman, 1995) were considered to be dropped.

Multi-factor CFA was run for the eight familism scales in a single CFA model, with each scale specified as a discrete factor (Nunnally & Bernstein, 1994). We used CFA fit indices, modification indices (MI), and correlations among the eight scales to examine whether each item was loaded to its designated factor and whether each scale was discrete from others but also reasonably convergent. Given that each scale is a subdomain of familism and shares latent traits with the other scales, correlations among scales were expected to be statistically and positively significant (exhibiting convergent validity), but not too high (exhibiting divergent validity if $r < .85$) (Campbell & Fiske, 1959). Based on the results, items were dropped from scales, factors merged, or items loaded to a different factor. When items were dropped, another series of analyses were executed to obtain a new scale mean, retest for internal consistency reliability, and obtain a single-factor CFA for the modified scale.

Measurement Invariance—Scales that shared a common set of items with a fair to good measurement fit (i.e., configural invariance) were further examined for metric, strong, and strict invariance across participant groups, in sequence from the least restrictive to the most restrictive model, first in an unconstrained model in which parameters (e.g., factor loading, intercept and error variance) were set free across the two groups and, next, in the constrained model that constrains parameters to be equal. Metric invariance is attained when the magnitude of factor loading of the items is invariant. Strong invariance is when the item intercepts are similar and, lastly, strict invariance is when the error variances are also similar. The differences of the unconstrained and constrained models in c^2 statistics ($\Delta c^2/\Delta df$) were tested for statistically significant difference of constrained parameters across ethnic groups. $\Delta CFI < .01$ also indicated invariance (Cheung & Rensvold, 2002).

Measures

Response options for items were a 5-point Likert Scale, e.g., (1) “Not at all” (2) “Not much” (3) “Moderately” (4) “Much” and (5) “Very much,” unless noted.

Traditional manners and etiquettes—This scale assesses how important it is to parents to preserve traditional etiquette and manners that symbolize respect for elders. Four items from the *Important Traditional Korean Etiquette* scale (Choi et al., 2013) were adopted but revised to include examples appropriate to Filipinos. For instance, a proper greeting for adults and elders among Koreans is a bow and a verbal greeting “*an-nyung-ha-se-yo*” while for Filipinos it is the gentle placement of the back of one’s hand on the elders’ forehead and

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an utterance of "*manopo*." Similar changes were made to additional items that describe specific Korean/Filipino manners and etiquette displaying respect to adults and elders. Based on the literature and our focus groups with Filipinos, one additional item was added to measure the extent to which parents emphasize the importance of acknowledging authority figures.

Respect for adults—This four-item scale adopted one item from *Panukat ng Ugali at Pagkatao* (PUP, Enriquez & Guanzon-Lapeña, 1985) ("not fight or talk back to older person out of respect"), and two items from the Latino Familism Scale (Lugo-Steidel & Contreras, 2003) that assesses absolute obedience to and respect for older persons regardless of one's contrary views. One new item was created based on literature review (de Guzman, 2011; Wolf, 1997) that highlights the importance of upholding parents' wishes over the child's.

Caring for aging parents—This measure consists of three new items based on focus group interviews and published research (e.g., Espiritu, 2003; Lim, 2011; Nadal, 2011). Both Korean and Filipino youth in focus groups and individual interviews viewed the tradition of caring for aging parents as particularly strong in their culture. Some of the items resemble items from the Latino Familism Scale (Lugo-Steidel & Contreras, 2003) but new items intentionally used verbiage from interviews with Filipino and Korean families to better capture cultural nuances.

Centrality of the family – Values—Similar to *Caring For Aging Parents*, the centrality of the family emerged as one of the most distinctive features of Filipino and Korean families both in interviews and in literature reviews (Enriquez & Guanzon-Lapeña, 1985). Filipino youth, in particular, stated that they maintain close ties with family members across generations, despite adverse personal circumstances and even if their relatives live far away. They also thought that Filipinos are unusually willing to share their homes with relatives in need, indicating close family relations. One item from *Enculturation Scale for Filipino Americans* (ESFA, "It is acceptable that several generations of a family share one household.") was included in this scale because it further highlights the cultural norm of sharing the home with multiple generations.

Centrality of the family – Behaviors—This measure consists of seven behaviors that showcase the centrality of family, e.g., providing care and sending money to family members either in U.S. or in the country of origin. Among Filipinos, the latter ("remittance") is one of the most frequently mentioned indicators of familial support and close ties. In both groups, contributing money when someone close dies was cited as a way of exhibiting the centrality of family. Parents as well as youth stated that parental support that typically extended from childhood through adulthood and "through any means" was a distinctly Asian feature. Finally, one's willingness to share the home with family members in need was also pinpointed as an indication of the importance of family, particularly when applied to adult children, aging parents, and extended relatives. Many focus group participants suggested this tendency was traditionally Filipino and Korean, although Koreans endorsed this to a lesser degree than Filipinos. The literature also echoes this sentiment (Cimmarusti, 1996; Enriquez & Guanzon-Lapeña, 1985).

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Harmony and sacrifice—This scale measures the degree of harmony and sacrifice made by an individual to the benefit of both family and non-family members, highlighting the collectivistic nature of the core culture. Four items were newly developed, ascertaining the importance of maintaining harmony at the expense of one's own needs and desires, and how much one should sacrifice for the greater familial good. In addition, one item "I should support members of the extended family (e.g. aunts, uncles, and in-laws) if they are in need, even if it is a big sacrifice for me" was adopted from the Latino Familism Scale (Lugo-Steidel A.G. & Contreras J.M., 2003) because it echoed the sentiments of especially Filipino focus group participants and, to a lesser degree, Korean participants as well.

Family obligation: Expectation on child—A set of 4 items asked about parental expectations of family obligations on their child, such as continuing to live close to the family home as adult children, continually helping out the family, and supporting aging parents. A high level of family obligation, particularly among Filipino families, is noted in the literature (de Guzman, 2011; Espiritu, 2003; Nadal, 2011; Wolf, 1997) and was corroborated in focus groups.

Family obligation: Expectation on daughters—A two-item scale from Fuligni and Zhang (2004) assesses parental expectations toward daughters to carry out family obligations. Focus groups as well as the literature attest that while family obligations apply to everyone, it tends to fall more heavily on daughters. This disproportionate distribution of responsibility is not unique to Filipino families, and the two items were actually developed based on urban and rural Chinese families. This set of questions was asked only to parents who have a daughter.

Results

Descriptive statistics and single-factor CFA models

Descriptive statistics and the results of single-factor CFA models are presented in Table 1, which also includes modified single-factor CFA models described in the next section. To avoid redundancy, only notable group differences are discussed below.

With the exception of *Traditional Manners and Etiquettes*, Filipino American parents reported a higher endorsement in all domains of familism. The mean of *Traditional Manners and Etiquettes*, the only domain where Korean Americans had a significantly higher mean than Filipino Americans (4.50 vs. 4.20, $p<.001$), showed a generally good measurement fit ($\alpha=.89$ vs. .80, CFI=.954 vs. .921) in both groups. However, RMSEA was not ideal at 0.158 and 0.166. At the item level, the "acknowledging authority figures" item had a marginal item-total correlation (.32) and weak factor loading (.393) among Filipino parents. Interestingly, this item was added based on statements made in Filipino American focus groups.

Although the means of *Respect for Adults* as a scale and of each item were higher among Filipino American parents (3.08 vs. 3.79, $p<.001$), Cronbach alphas and CFI were better among Korean participants ($\alpha=.76$ vs. .69, CFI=.877 vs. .775). RMSEA was poor for both groups (.260 vs. .308).

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The overall mean of *Caring for Aging Parents* was notably and statistically higher among Filipino parents than among Korean parents (3.49 vs. 4.28, $p<.001$), as well as in all respective items. Item-total correlations and factor loadings of each item were all acceptable, as was the reliability as a scale ($r=.68$ vs. .72). M*plus* does not generate χ^2 and RMSEA for three item scales, so they are not available to report.

In regard to *Centrality of Family—Values,* although both groups strongly agreed on the importance of family, a perception of sharing the home with relatives as an indication of familial closeness was notably higher among Filipino parents. This item had a poor factor loading and a marginal item-total correlation among Korean parents. The reliability was not strong (.56 vs. .65), although CFI was fair to good (.836 vs. .903). Similar to the value scale, *Centrality of Family—Behaviors* was significantly higher among Filipinos than Koreans, both at an individual item level as well as at a scale level. One exception was contributing money when a relative or a neighbor passes away, which was significantly higher among Koreans (4.26 vs. 3.94, $p<.05$). The mean differences of some items (i.e., sharing home with other family members) were pretty large across the two groups. Item-total correlations were overall good with the exception of the parental willingness to provide extended support for their children item among Koreans. A few items showed poor factor loading (e.g., the supporting extended family items among Filipinos and the contributing money item in both groups). Although reliability of the scale was fair to good (.72 or .69), other measurement fits were poor (i.e., CFI of .637 and.679 and RMSEA .188 and.199) in both groups.

The scale mean of *Harmony and Sacrifice* was higher among Filipinos, but the importance of harmonious relations with non-family members was higher among Koreans. At the scale level, reliability was good in both groups (.80 and.79) and CFI was fair (.833 and .865) although RMSEA was rather high (.237 and .200).

The measurement fit of *Family Obligation: Expectation on Child,* was in general very good, marked by high reliability (.83 and .80) and CFI (.998 and .902). Item total correlations and factor loadings were also good, except the item of wanting their children staying close after they graduate high school, which had low factor loading that was still within the criteria. Lastly, the items of *Family Obligation: Expectation on Daughters* was endorsed low to moderate in both groups with Filipino parents reporting a higher level than Korean parents at both scale and item levels. Because there were only two items, reliability is a correlation between the two items (.65 and .63). CFA cannot run with two items, so no additional fit indices are available.

Modifications

A multi-factor CFA model was run and, based on the modification index (MI), several multi-factor CFA models were run, mainly to identify the best fitting measurement models and to establish construct validity for each subscale. Finally, a single-factor CFA model was run again for each finalized scale. Table 1 provides fit indices and factor loadings. The majority of factor loadings did not change much through the models, although overall the model fits progressively improved in each modification. Thus, the multi-factor CFA results of modification process are not presented in tables but summarized below.

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The fit indices of the first multi-factor CFA model were χ^2=1069.914, p<.001, CFA=.789, RMSEA=.078 for Koreans and χ^2=1140.843, p<.001, CFA=.697, RMSEA=.092 for Filipinos. In reviewing MI's, we focused on high correlations among items (>.7), significant BY statements that suggest loading an item to a different factor, significant WITH statements (i.e., high correlation among factors or items), and low factor loading (<.4). Each significant MI was ordered by the size of χ^2 and modification was made in that order. In each modification, multi-factor CFA model was run to examine model fits and changes in significant MI's.

Based on these results, we modified the scale to drop several items [e.g., "recognizing authority figures" from *Traditional Manners and Etiquettes* and "contributing money" from *Centrality of Family-Behaviors* and double-loaded several items (e.g., "caregiving is a duty" to *Caring for Aging Parents* and *Traditional Manners and Etiquettes*, Koreans only)]. We combined *Centrality of Family-Values* with *Centrality of Family-Behaviors* but it significantly compromised model fits among Filipino. Thus, we combined them only among Koreans. Among Filipinos, we correlated the two constructs, which significantly improved the model fit of *Centrality of Family-Behaviors*. We first double-loaded two items in *Harmony and Sacrifice* ("sacrificing to support family" and "sacrificing to support extended family") to *Centrality of Family-Behaviors* (Filipinos only) but the resulting fit indices were significantly worse. Thus, instead, we correlated *Harmony and Sacrifice* and *Centrality of Family-Behaviors. Family Obligation-Expectation on Child* and *Family Obligation-Expectation on Daughters* were combined as one factor due to high correlation between them but did not work well as one scale. Further examining inter-item correlations as a combined scale, we decided to drop *Family Obligation-Expectation on Daughters* because the two items of this scale were too highly correlated with the items of *Family Obligation-Expectation on Child.* In the final model, we undid the double-loading of items and dropped "family is the most important" "supporting extended family in U.S." and "helping my child regardless…" among Koreans. "Supporting extended family in Philippines/Korean" was dropped in both groups. The fit indices of the final multi-factor CFA model were χ^2=521.065, p<.001, CFA=.885, RMSEA=.067 for Koreans and χ^2=714.754, p<.001, CFA=.791, RMSEA=.082 for Filipino.

As the last step, each scale if modified was run in a single-factor CFA to confirm their factor loadings and fit indices. The fit indices of the modified scales were better, e.g., CFI of *Centrality of Family-Behaviors* improved from .637 to .928 among Filipinos. Cronbach alphas for the modified scales are provided in Table 1. After modifications, Filipinos have 7 scales with 27 items and Koreans 6 scales with 26 items.

Intercorrelations

As a part of multi-factor CFA, pair-wise intercorrelations were generated and examined with the final modified scales and the results are shown in Table 2 and 3 for Koreans and Filipino respectively. In addition to tests of discriminant and divergent validity of the scales for each group, a similar pattern in intercorrelations can support functional invariance.

The overall pattern of correlations were such that the scales were are significantly and positively correlated with one another, albeit a few exceptions and the magnitudes of the

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correlations were not overly high [i.e., <.85, (Campbell & Fiske, 1959)]. This pattern in general supports both discriminant and convergent validity of the scales. However, some differences in intercorrelations across the groups were noted, i.e., mainly the relationships between *Family Obligation* and the rest of familism constructs were different. Specifically, among Korean parents, parental expectation of family obligation toward their child was not necessarily correlated with the importance of *Traditional Manners and Etiquettes, Respect for Adults, Caring Aging parents* and *Harmony and Sacrifice* for the family. It was significantly correlated only with *Centrality of Family*. Conversely, among Filipino parents, parental expectation of family obligation toward their child was strongly correlated with the other domains of familism.

Factorial Invariance

We tested factorial invariance in four scales, *Traditional Manners and Etiquettes, Respect for Adults, Harmony and Sacrifice* and *Family Obligation* that we established configural invariance (Table 4). *Centrality of Family* (combined) among Koreans and *Centrality of Family-Values* and *Centrality of Family-Behaviors* among Filipinos were not tested for metric, strong and strict invariance since they did not have configural invariance. Although invariance was not tested for *Caring for Aging Parents* because there are only 3 items (thus no fit indices generated), it would be safe to assume configural invariance for this scale. *Respect for Adults, Harmony and Sacrifice* and *Parental Expectation of Family Obligation* showed metric invariance but *Traditional Manners and Etiquettes* did not attain metric invariance.

Discussion

We began this study with extensive literature review and focus groups to generate over 100 items related to the measurement of familism. Through the filter of rounds of investigative analyses and pretests, these items were refined until a total of 34 items categorized into 8 domains remained. In this present study, these remaining items were subject to rigorous psychometric tests and modifications, leaving 6 or 7 familism domains with demonstrably fair to good quality psychometric properties applicable to the study of familism among Filipino and Korean American families – 26 items for Koreans and 27 for Filipinos. Results show that *Traditional Manners and Etiquettes*, previously developed and tested for Korean Americans, would work well with Filipino Americans. *Centrality of Family* (values and behaviors combined for Koreans and separate for Filipinos) and *Family Obligation* also would work well in both groups. These scales should be robust enough to be used, including structural equation modeling as latent constructs that typically requires thorough measurement testing. Although RMSEA is higher than desired, it is more common to use items as a scale (summed or averaged) or, in analyses modeling latent constructs, to parcel items, which likely reduces residual covariance among items and, subsequently, improves fit. The items of *Harmony and Sacrifice*, *Caring Aging Parents* and *Respect for Adults*, were endorsed fair to high, particularly among Filipinos, but did not have a strong quality as a scale and should be improved for future use. Nonetheless, they seem promising for use, as indicated by good reliability, a minimum requirement as a scale, and good factor loadings, and should be considered for further development rather than be discarded.

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Configural invariance (i.e., being composed of the same items) was evident in all but *Centrality of Family* in which values and behaviors of the construct formed a single scale for Koreans but were separate among Filipinos. *Respect for Adults*, *Harmony and Sacrifice* and *Family Obligation* further attained metric invariance (i.e., similar factor loadings), which enables comparative analyses across the two groups. In comparative analyses, if a scale is comprised of a different set of items for each group, one can either use only the items common to groups or allow the measure to vary across groups (Kline, 2010). Achieving scalar or strong (i.e., similar intercepts) and strict (i.e., similar error terms) invariances is infrequent, because invariance tests are based on mean, variance and covariance of items, and subgroups when they are significantly different from each other tend to differ precisely in those parameters. Even though additional work can improve the quality as a scale and invariance of these newly developed scales, comparative examination of descriptive statistics and psychometric properties of new familism scales and items can provide a nuanced and culturally attuned familism among Filipino and Korean American families.

Our study adds to the nascent body of research showing acculturation to be both selective and variable among Asian American subgroups. Notwithstanding scoring highest among Asian American groups on acculturation scales (Espiritu, 2003), in the present study, Filipino American parents more strongly endorsed virtually all aspects of familism than did Korean American parents. Thus, though Korean American parents also strongly endorsed traditional values, Filipino Americans are arguably even more traditional than their Korean American counterparts, at least with respect to the traditional value of familism. We see this most clearly in the notably higher scores among Filipino Americans on the *Caring for Aging Parents* and *Respect for Parents* scales. Filipino Americans clearly showed a stronger belief in hierarchy within the family, including compliance with older adults and the child's obedience to parents. Though endorsement of parental expectations that children live close and provide support was low to moderate, Filipino American parents' scores were higher than that of Korean American parents, and expectations of girls was higher among Filipino Americans. Filipino Americans also more strongly endorsed *Family Obligation*. Among Korean American parents, the *Family Obligation* scale was positively associated with the *Centrality of Family* scale but did not correlate with other domains of familism, which may be taken as an indication that Korean American parents expect themselves to fulfill traditional family obligations, but do not have the same expectations of their Americanized children. A qualitative study with 20 American or Canadian-born Korean couples provides additional evidence of moving away from traditional family process to accommodate socio-contexts of their children (Kim, Knudson-Martin & Tuttle, 2014). Hence, this acculturative trend may become more evident among later generations of Korean American families. In contrast, Filipino American parents show a greater desire to pass on traditional expectations to their children, and thus maintain culture-specific values related to familism.

Interestingly, this study also challenged accepted constructs of familism. Filipino American participants in our focus groups cited supportive behaviors, including remittances back to family in the Philippines, as evidence of the centrality of family, but our study found that such supporting behaviors did not converge well with other items measuring the value of familism. Rather, unlike Koreans whose centrality of family values and behaviors are merged together, the revised scale among Filipinos seems to distinguish supporting

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behaviors – providing care and help, sharing the home, and maintaining close ties to family members regardless of barriers – from an attitudinal value towards the centrality of the family. The divergence between participants' stated valence of familism and the import of their actual behaviors is open to several interpretations. The incongruence may suggest that participants themselves believe their acts of support and sacrifice are based on the centrality of family when in fact these acts, including housing distant relatives and sending remittances, are done out of necessity. Alternatively, it may be that Filipinos and, to a lesser extent, Korean Americans, are following a cultural and stereotypical script regarding the importance of family to their cultures, and the internal valuation of familism may come after performing outward acts in conformity to stereotypes. The distinction between actual endorsement of familism and acts that seem to support familism is a delicate one, and has important implications for the burden Filipino and Korean Americans, and particularly youth, may feel in upholding traditional values, as well as their associated negative psychological outcomes.

Similarly, while Korean American parents scored more highly on practicing culturally appropriate behaviors and employing language honorifics, these behaviors were not significantly associated with supporting the family or parental expectations of family obligations. The divergence suggests that "manners and etiquettes" are more a culture-specific code of conduct rather than an endorsement of familism as a value. The extensive system of honorifics embedded into the Korean language facilitates the outward adoption of traditional manners and etiquettes even absent an embrace of the underlying value of familism. Relatedly, *Traditional Etiquettes and Manners* as a scale also did not establish metric invariance, suggesting that traditional etiquettes and manners are likely to relate to other variables differently in each group. Likewise, contributing money upon a neighbor's or relatives' death may be a common cultural practice among Koreans but was not correlated with their willingness to support and share their home with relatives. So, too, Korean parents' willingness to support their children at any age and through any means did not hang well with other items that concerned extended family members. The intercorrelations, in addition to challenging the value of familism to Korean Americans, may confirm that Filipino Americans have a more expansive definition of family, while the centrality of family revolves around the nuclear family for Korean Americans.

Implications and Future Direction

Korean American and Filipino American families operationalize familism in subtle, but importantly different ways. As the same may be true for other Asian American subgroups, the measures tested here should be tested for validity and reliability across other subgroups. Additional ethno-specific measures should be developed to accurately assess unique elements of familism in other Asian subgroups. An alternative to the time consuming and perhaps impossible task of finding equivalent behaviors and manners across all different ethnic groups, different behavior items for different groups may be provided in scales as an example, as in *Traditional Etiquettes and Manners* scale. Along this line, other items and scales (e.g., *Centrality of Family*) can be reduced to a global statement with behaviors as examples. Alternatively, we can use a combination of equivalent items that signify core

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value concepts, and additional items that are unique to the target group as the way the *Centrality of Family* scale is currently constructed.

The results of the present study indicate that, notwithstanding assumptions about which immigrant groups are more acculturated, traditional values of familism remain strong in both Korean and Filipino American parents. Filipino American parents express stronger endorsement of traditional and hierarchical family processes, counter to studies that have found Filipino Americans to be more egalitarian and assimilated than other Asian American subgroups (see, e.g., Espiritu, 2003). Although Filipino Americans may be more assimilated linguistically and in other aspects, our study suggests they remain quite traditional in familism and, in particular, supporting the family, sacrificing for the family, and expecting the same from their children.

The differential import of familism between Filipino and Korean American parents is suggestive for future research. Previous research that shows that Filipino American youth, specifically girls, more strongly feel the burden of familial obligations and also endorse greater symptoms of poor mental health (Nadal, 2011). Results from the present study may be used in conjunction with additional research to investigate how the role of familism, as disparately experienced by parents and their children, affects the psychological burden youth feel to support their family.

Relatedly, familism has been associated, both positively and negatively, with the psychological burden experienced by Asian American adult caregivers of elderly family members (Losada and Romero-Moreno, 2010; Youn et al., 1999). The present study reveals that those domains of familism that relate to caretaking are gendered. Further, Korean parents, at least, highly value familism domains such as caring for aging parents, but do not necessarily socialize their own children to similarly value caregiving. The nuances in how different Asian American subgroups and genders value and express familism are informative for future research on the burdens of caregiving in Asian American communities.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Measures of Familism and Single-Factor CFA

Constructs	Mean (SD)		Alpha[2]	Item-Total[3]		Factor Loading		Factor Loading (Modified)	
Items[1]	**Korean**	**Filipino**	**Korean**	**Filipino**		**Korean**	**Filipino**	**Korean**	**Filipino**
					χ^2	**28.189*** **	**25.688*** **	**16.959*** **	**1.850**
F1. Traditional Manners and Etiquettes	**4.50 (0.50)**	**4.20 (0.79)*** **	**0.89**	**0.80**	**CFI**	**0.954**	**0.921**	**0.957**	**1.000**
					RMSEA	**0.158**	**0.166**	**0.201**	**0.000**
					Alpha			**0.86**	**0.82**
1. *Recognizes authority figures*	4.61 (0.52)	4.57 (0.67)	0.75	0.32		0.809	0.393	DROPPED	DROPPED
2. Properly greetings	4.55 (0.55)	4.03 (1.17)***	0.75	0.70		0.801	0.794	0.758	0.807
3. Social norms/etiquette toward adults	4.43 (0.66)	4.38 (0.85)	0.78	0.71		0.846	0.776	0.874	0.742
4. Uses proper addressing terms	4.44 (0.62)	4.38 (1.00)	0.68	0.65		0.714	0.711	0.693	0.707
5. Traditional way of speaking to adults	4.45 (0.65)	3.63 (1.45)***	0.71	0.62		0.756	0.715	0.788	0.742
					χ^2	**27.066*** **	**30.521*** **	**27.066*** **	**30.521*** **
F2. Respect for Adults	**3.08 (0.64)**	**3.79 (0.65)*** **	**0.76**	**0.69**	**CFI**	**0.877**	**0.775**	**0.877**	**0.775**
					RMSEA	**0.260**	**0.308**	**0.260**	**0.308**
1. Shouldn't fight or talk back	3.38 (0.86)	4.14 (0.87)***	0.61	0.46		0.651	0.688	0.651	0.688
2. Treat adults with respect	3.93 (0.85)	4.54 (0.60)***	0.48	0.49		0.557	0.679	0.557	0.679
3. Children should obey	2.78 (0.83)	3.39 (1.05)***	0.68	0.55		0.850	0.589	0.850	0.589
4. Parental wishes more important	2.23 (0.85)	3.08 (0.98)***	0.45	0.47		0.606	0.505	0.606	0.505
F3. Caring Aging Parents	**3.49 (0.69)**	**4.28 (0.67)*** **	**0.68**	**0.72**		**N/A**	**N/A**	**N/A**	**N/A**
1. Caregiving for aging parents a duty	2.99 (1.01)	4.11 (0.94)***	0.44	0.53		0.529	0.648	0.529	0.648
2. Take care of my aging parents	3.77 (0.71)	4.46 (0.67)***	0.63	0.68		0.941	0.933	0.941	0.933
3. Disturb to place parents in nursing home	3.69 (0.90)	4.27 (0.90)***	0.45	0.46		0.559	0.539	0.559	0.539
					χ^2	**13.837*** **	**11.964** **	**25.293** **	**11.964** **

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Constructs	Mean (SD)		Alpha[2]	Item-Total[3]		Factor Loading		Factor Loading (Modified)	
Items[1]	Korean	Filipino	Korean	Filipino		Korean	Filipino	Korean	Filipino
F4. Centrality of Family -- Values	**3.57 (0.60)**	**4.09 (0.65)*****	**0.56**	**0.65**	**CFI**	**0.836**	**0.903**	**0.938**	**0.903**
					RMSEA	**0.178**	**0.182**	**0.099**	**0.182**
					Alpha			**0.75**	**0.65**
1. *The most important above all*[4]	4.46 (0.61)	4.77 (0.44)***	0.31	0.41		0.530	0.494	DROPPED	0.494
2. Maintain close ties regardless	4.03 (0.78)	4.47 (0.65)***	0.38	0.42		0.687	0.529	0.416	0.529
3. Sharing home an indication of closeness	2.50 (1.03)	3.71 (1.14)***	0.30	0.58		0.296	0.760	0.512	0.760
4. Generations can share one household	3.26 (1.16)	3.40 (1.26)	0.44	0.51		0.499	0.618	0.665	0.618
					χ^2	**105.941*****	**97.704*****	**(Combined with F4)**	**29.971*****
F5. Centrality of Family—Behaviors	**3.20 (0.60)**	**4.07 (0.61)*****	**0.72**	**0.69**	**CFI**	**0.637**	**0.679**		**0.928**
					RMSEA	**0.188**	**0.199**		**0.211**
					Alpha				**071**
1. *Support family in U.S.*	2.65 (1.26)	3.08 (1.29)**	0.51	0.46		0.504	0.214	DROPPED	DROPPED
2. *Support family in the Philippines/Korea*	2.58 (1.15)	3.40 (1.40)***	0.47	0.47		0.478	0.122	DROPPED	DROPPED
3. *Contribute money when passes away*	4.26 (1.06)	3.94 (1.18)*	0.34	0.39		0.239	0.118	DROPPED	DROPPED
4. *Help child regardless*[4]	3.96 (0.91)	4.66 (0.67)***	0.29	0.38		0.319	0.753	DROPPED	0.743
5. Share home with adult children	3.05 (1.10)	4.69 (0.60)***	0.40	0.43		0.468	0.940	0.390	0.966
6. Share home with aging parents	3.38 (1.11)	4.66 (0.59)***	0.48	0.49		0.684	0.616	0.718	0.603
7. Share home with relatives	2.23 (1.05)	3.71 (1.01)***	0.54	0.37		0.758	0.372	0.829	0.349
					χ^2	**52.274*****	**35.083*****	**52.274*****	**35.083*****
F6. Harmony and Sacrifice	**3.39 (0.64)**	**3.65 (0.71)*****	**0.80**	**0.79**	**CFI**	**0.833**	**0.865**	**0.833**	**0.865**
					RMSEA	**0.237**	**0.200**	**0.237**	**0.200**
1. Harmony with family	3.81 (0.84)	3.97 (0.94)†	0.63	0.63		0.821	0.763	0.821	0.763
2. Harmony with non-family	3.56 (0.80)	3.17 (1.03)***	0.60	0.60		0.795	0.765	0.795	0.765
3. Sacrifice the greater good	3.12 (0.96)	3.46 (0.96)**	0.62	0.60		0.655	0.682	0.655	0.682

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Constructs	Mean (SD)		Alpha[2]	Item-Total[3]		Factor Loading		Factor Loading (Modified)	
Items[1]	Korean	Filipino	Korean	Filipino		Korean	Filipino	Korean	Filipino
4. Support family	3.68 (0.82)	4.23 (0.85)***	0.47	0.48		0.424	0.481	0.424	0.481
5. Support the extended family	2.76 (0.86)	3.40 (0.99)***	0.60	0.54		0.560	0.552	0.560	0.552
					χ^2	**2.773**	**27.944*** **	**2.773**	**27.944*** **
F7. Family Obligation Expectation	**2.73 (0.79)**	**3.14 (0.92)*** **	**0.83**	**0.80**	**CFI**	**0.998**	**0.902**	**0.998**	**0.902**
					RMSEA	**0.046**	**0.295**	**0.046**	**0.295**
1. Stay close after high school	3.25 (1.03)	3.72 (1.13)***	0.43	0.37		0.456	0.478	0.456	0.478
2. Help out the family	2.63 (0.95)	3.24 (1.23)***	0.74	0.71		0.806	0.740	0.806	0.740
3. Live close to help	2.50 (0.94)	2.68 (1.14)	0.82	0.83		0.952	0.966	0.952	0.966
4. Take care of old parents	2.52 (0.95)	2.94 (1.14)***	0.70	0.60		0.815	0.727	0.815	0.727
F8. Family Obligation on Daughters	**2.94 (0.92)**	**3.37 (1.04)** **	**0.65**	**0.63**		**N/A**	**N/A**	**N/A**	**N/A**
1. T*ake care of old parents*	2.72 (0.99)	3.19 (1.19)**	0.48	0.46				DROPPED	DROPPED
2. *Live near home*	3.16 (1.14)	3.57 (1.20)**	0.48	0.46				DROPPED	DROPPED

Notes:

*$p < .05$;

**$p < .01$;

***$p < .001$

[1]Items were simplified to fit the table. The original items including lead-in questions are available in Supporting Information (Table 1_S).

Dropped items are indicated in *italics*.

[2]Cronbach alpha for scale

[3]Item-total correlations

[4]Were dropped only for Koreans

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Table 2

Correlations among Factors among Korean Americans

Factors	F1	F2	F3	F4/F5	F6	F7
F1 Traditional Manners & Etiquettes	--					
F2 Respect for Adults	0.309**	--				
F3 Caring Aging Parents	0.318**	0.472**	--			
F4/F5 Centrality of Family	0.128	0.474**	0.559**	--		
F6 Harmony and Sacrifice	0.276**	0.515**	0.562**	0.593**	--	
F7 Parental Expectation of Family Obligation	0.005	0.124	0.126	0.250**	0.085	--

Notes:

* $p < .05$;

** $p < .01$;

*** $p < .001$

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Table 3

Correlations among Factors for Filipino Americans

Factors	F1	F2	F3	F4	F5	F6	F7
F1 Traditional Manners & Etiquettes	--						
F2 Respect for Adults	0.271**	--					
F3 Caring Aging Parents	0.193**	0.395**	--				
F4 Centrality of Family: Values	0.192*	0.313**	0.388**	--			
F5 Centrality of Family: Behaviors	0.291**	0.288**	0.401**	0.539**	--		
F6 Harmony and Sacrifice	0.164*	0.501**	0.419**	0.502**	0.387**	--	
F7 Parental Expectation of Family Obligation	0.240**	0.399**	0.320**	0.295**	0.290**	0.450**	--

Notes:

* $p < .05$;

** $p < .01$;

*** $p < .001$

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Table 4

Factorial Invariance Tests

Model	$\Delta\chi 2$	Δdf	*CFI*	*RMSEA*
Traditional Manners and Etiquettes				
1 Configural	--	--	.974	.091
2 Metric	30.59***	3	.909	.133
3 Strong	67.54***	3	.675	.210
4 Strict	89.38***	4	.160	.286
Respect for Adults				
1 Configural	--	--	.838	.282
2 Metric	1.19	3	.843	.210
3 Strong	11.02*	3	.819	.189
4 Strict	52.45***	4	.672	.215
Harmony and Sacrifice				
1 Configural	--	--	.846	.221
2 Metric	1.59	4	.851	.184
3 Strong	121.92***	4	.630	.255
4 Strict	26.44***	5	.590	.238
Parental Expectation of Child's Family Obligation				
1 Configural	--	--	.958	.200
2 Metric	1.31	3	.961	.146
3 Strong	39.94***	3	.903	.193
4 Strict	39.79***	4	.847	.204

Notes:

* $p < .05$;

** $p < .01$;

*** $p < .001$

No asterisk means invariance.