

Loss of Face, Intergenerational Family Conflict, and Depression Among Asian American and European American College Students

Zornitsa Kalibatseva
Stockton University

Frederick T. L. Leong
Michigan State University

Eun Hye Ham
Korean Educational Development Institute,
Seoul, South Korea

Brittany K. Lannert
Emory University School of Medicine

Yang Chen
Michigan State University

Asian-American college students have reported higher scores of depression than European-American college students. This study examined the mediating effects of loss of face and intergenerational family conflict between race/ethnicity and depression and hypothesized that these variables would explain previously observed depression differences. The sample consisted of 488 undergraduate students: 209 self-identified as Asian American and 279 as European American. Participants filled out paper-and-pencil questionnaires. As predicted, the study found that Asian Americans reported higher scores on depression, loss of face, and intergenerational family conflict than European Americans. Loss of face explained more variance in depression among Asian Americans than European Americans. However, intergenerational family conflict explained equal levels of variance in depression for both groups. A structural equation model revealed that the relationship between race/ethnicity and depression was fully mediated by loss of face and intergenerational family conflict. In conclusion, using the disentangling approach, differences in depression scores between Asian-American and European-American college students can be explained by differences in culturally relevant constructs, such as loss of face and intergenerational family conflict.

Keywords: depression, loss of face, family conflict, Asian American, European American

In the last 2 decades, researchers have suggested a departure from group comparisons based solely on race, ethnicity, nationality, and immigration status. They have recommended unpacking group differences by examining psychological factors that may underlie these cultural differences (Betancourt & Lopez, 1993; Helms, Jernigan, & Mascher, 2005; Markus, 2008). Following

these recommendations, Leong, Park, and Kalibatseva (2013) proposed the disentangling approach, which seeks to identify psychological factors or mechanisms underlining differences found between groups based on demographic variables (i.e., race, ethnicity, immigrant status). To illustrate this, Leong and colleagues (2013) examined risk and protective factors associated with immigrant status and found that higher levels of discrimination, acculturative stress, and family conflict predicted higher prevalence of depressive and anxiety disorders among Latino and Asian-American immigrants. To extend the disentangling approach, the goal of this study is to demonstrate that psychological correlates of race/ethnicity predict depressive symptoms over and beyond its demographic characteristics. This study examined two culturally relevant psychological variables—sensitivity to loss of face and intergenerational family conflict—that may explain patterns in depression between Asian-American and European-American college students.

Depression is among the most common and debilitating psychological disorders on college campuses (Eisenberg, Hunt, & Speer, 2013; Miller & Chung, 2009). Asian-American students report higher levels of depression on self-report measures than European-American students (Abe & Zane, 1990; Eisenberg et al., 2013; Okazaki, 1997; Young, Fang, & Zisook, 2010). Therefore, it is important to examine factors that may explain racial disparities in

Editor's Note. Tiffany Yip served as the action editor for this article.—BSKK

This article was published Online First March 30, 2017.
Zornitsa Kalibatseva, Social and Behavioral Sciences, Stockton University; Frederick T. L. Leong, Department of Psychology, Michigan State University; Eun Hye Ham, Korean Educational Development Institute, Seoul, South Korea; Brittany K. Lannert, Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine; Yang Chen, Department of Psychology, Michigan State University.

Eun Hye Ham is now at Department of Education, Kongju National University.

Correspondence concerning this article should be addressed to Zornitsa Kalibatseva, Social and Behavioral Sciences, Stockton University, 101 Vera King Farris Drive, Galloway, NJ 08205. E-mail: zornitsa.kalibatseva@stockton.edu

depressive symptoms among college students. However, little research has examined what cultural factors may contribute to observed racial differences in self-reported measures of depression (Okazaki, 1997). A handful of studies have attempted to explain these differences by examining depression in conjunction with social anxiety, self-construal, reporting method, and self-enhancement (Norasakkunkit & Kalick, 2002; Okazaki, 1997, 2000). For example, two early proposed explanations for the observed differences in depression between Asian-American and European students included the effects of social anxiety and self-construal (Okazaki, 1997) and the effects of measurement method (Okazaki, 2000). Race/ethnicity remained a significant predictor of depression differences in both studies when controlling for these effects.

Additional sociocultural variables that have been examined in relation to cross-cultural differences in depression and social anxiety among Asian Americans and European Americans include self-construal, sociotropy, acculturation, emotion suppression, and family cohesion (Lam, 2005; Mak, Law, & Teng, 2011; Okazaki, 1997, 2000; Park et al., 2011). However, no study to date has examined loss of face or intergenerational family conflict and their relationship to racial differences in depression among Asian-American and European-American college students. These variables seem directly related to the concept of maintaining harmony within one's group and may be particularly relevant to traditional college students who are in a developmental stage when they seek independence from their families while trying to maintain their status or face with others. They may explain more variance in depression among Asian Americans than European Americans. Moreover, loss of face and intergenerational family conflict may mediate the relationship between race/ethnicity and depression.

Loss of Face

Loss of face refers to the danger of losing one's social integrity and status in interpersonal dynamics. Face (*mianzi* or *lian* in Mandarin Chinese) is an important cultural concept in China, Japan, and other Asian countries. As defined by Zane and Yeh (2002) in their review of the extant research, it is

a person's set of socially-sanctioned claims concerning one's social character and social integrity in which this set of claims or this "line" is largely defined by certain prescribed roles that one carries out as a member and representative of a group. (p. 126)

In other words, having face loosely refers to having a good reputation, honor, prestige, and social value in other people's eyes. Preservation of one's face is related to both individual and group integrity. Loss of face (*diu lian* in Mandarin Chinese) is an important cultural variable for Asians and Asian Americans, but it is certainly not unique to Asians and Asian Americans. Loss of face may negatively affect one's social role and disrupt interpersonal relationships and networks that are of great importance in Asian cultures (Leong, Kim, & Gupta, 2011).

Shame is often used as a mechanism to reinforce societal expectations and appropriate behaviors in Asian cultures (Leong, Lee, & Chang, 2008). Loss of face typically results in shame, which is particularly relevant to Asian Americans because it may discourage them from seeking help for issues they find embarrassing (Zane & Yeh, 2002). Loss of face refers to how one believes

others perceive her/him and shame emphasizes how one perceives herself/himself. The two concepts are often related, but one can occur without the other.

Leong et al. (2008) further suggested that the emotion of shame and the experience of losing face may be associated with heightened levels of emotional distress as the family, community, and society withdraw their approval and support from the individual. Loss of face is significantly correlated with depressive symptoms, fear of negative evaluation, and social avoidance and distress among both Asian Americans and European Americans (Leong et al., 2008). Furthermore, Mak, Chen, Lam, and Yiu (2009) found that loss of face consisted of self-face and other-face among Hong Kong Chinese and Mainland Chinese. Only self-face was positively associated with psychological distress in this study. Thus, sensitivity to loss of face could be one culturally relevant psychological variable that is associated with depression.

Intergenerational Family Conflict

Family conflict has been primarily examined as everyday conflict among European-American families and acculturation-based conflict among immigrant families (Juang, Syed, Cookston, Wang, & Kim, 2012). Intergenerational family conflict refers to the conflict that adolescents often start to experience as they begin to differentiate from their parents (Lee & Liu, 2001). Within immigrant racial/ethnic minority families, intergenerational family conflict often takes place as a result of different rates of acculturation between immigrant parents, who retain values, behaviors, and traditions consistent with their native culture, and their children, who grow up in the new host country and embrace the mainstream culture (Lee, Choe, Kim, & Ngo, 2000). In particular, foreign-born immigrant parents may hold strong cultural values and practices of their country of origin whereas their children may acculturate to the dominant culture faster than their parents as a result of school, work, and friendships (Szapocznik & Kurtines, 1993). Thus, both parents and children are engaged in a process of changing and adapting to the cultural contexts, but some family units may experience more synchrony in the process than others (Juang, Syed, & Takagi, 2007).

Intergenerational family conflict has been linked to decreased well-being, psychological distress, and vulnerability to depression among Asian-American adolescents (Juang et al., 2007) and Asian-American, Hispanic, and European-American college students (Lee et al., 2000; Lee & Liu, 2001). Intergenerational family conflict may contribute to depressed mood to a greater extent among Asian Americans than European Americans because of the added component of acculturation differences between children and immigrant parents. Indeed, Greenberger and Chen (1996) found that the perceived quality of the parent-adolescent relationship fully mediated racial differences in depressed mood among Asian- and European-American late adolescents. Hwang and Wood (2009) also found that acculturative family distancing, the drift that occurs between family members as a result of different levels of acculturation, was associated with greater risk for depression among Asian-American and Latino students. Similar findings on the association between depression and intergenerational family conflict among Asian-American and European-American college students would attest that it may explain racial group differences in depression because there may be higher levels of family conflict

among Asian Americans due to different rates of acculturation between generations.

Present Study

The current study sought to apply the disentangling approach (Leong et al., 2013) to understand racial differences in depression between Asian-American and European-American college students by examining two culturally relevant psychological factors—namely, loss of face and intergenerational family conflict. On the basis of existing research, this study posed five hypotheses:

1. Asian-American college students would report higher levels of depression than European-American college students (after controlling for age and gender differences).
2. Asian Americans would have higher scores on loss of face and intergenerational family conflict than European Americans (after controlling for age and gender differences).
3. Loss of face would predict more variance in depression among Asian Americans than European Americans.
4. Intergenerational family conflict would predict more variance in depression among Asian Americans than European Americans.
5. Loss of face and intergenerational family conflict would mediate the relationship between race/ethnicity and depression.

Method

Participants

A total of 553 undergraduate students at a large Midwestern university took the survey. Sixty-five students were removed from the dataset because they did not meet the eligibility criteria (i.e., did not identify as Asian American or European American, $n = 17$; did not complete the survey, $n = 29$; or provided responses outside of the allowed range on the scantrons, $n = 19$). Thus, the final sample consisted of 488 participants. Self-identified Asian-American participants comprised 43% of the sample ($n = 209$). Of those, 89 were male (42.8%) and 119 were female (57.2%). Most Asian-American participants reported they were U.S. citizens ($n = 172$; 83.5%), compared with 14.6% who identified as U.S. permanent residents ($n = 33$) and 4 participants with “other” status. Data on the ethnicity of the Asian-American participants were not collected. On the basis of other Asian-American samples at this institution, 25–30% of students identify as Chinese, 25–30% of students identify as Indian, and 15% identify as Korean, followed by Vietnamese, Filipino, Hmong, Pakistani, and Japanese. More than half of the sample ($n = 279$; 57%) self-identified as European American. Among them, 80 were men (28.7%) and 199 were women (71.3%). Almost all ($n = 271$; 97.5%) European-American participants reported being U.S. citizens. The Asian-American sample had more males than the European-American sample ($\chi^2 = 10.48, p = .001$). The Asian-American sample ($M = 20.35$ years,

$SD = 1.56$) was also younger than the European-American sample ($M = 20.67$ years, $SD = 1.51$), $t(461) = 2.30, p = .026$. There were no differences in family income between the two groups. Almost half of the full sample (43.4%) was first-year students, 24.2% were sophomores, 17.8% were juniors, and 14.7% were seniors.

Measures

Loss of Face. All participants completed the Loss of Face (LOF) questionnaire (Zane, 1991, 2000), which contains 21 items measuring a person’s self-assessment of sensitivity to face loss in different situations. Items are scored on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Total scores may range from 21 to 147, with higher scores indicating greater concerns with losing face. The psychometric properties of this instrument suggest that it is reliable in assessing the construct of face loss with a high internal consistency (Cronbach’s α ranged from .83 to .92; Zane, 2000). In the present study, Cronbach’s α was .87 for the Asian-American sample and .88 for the European-American sample.

Family Conflicts Scale. The Family Conflicts Scale (FCS; Lee et al., 2000) consists of 10 items that measure intergenerational family conflict. The items’ wording reflects differences in the child’s and the parent’s values and expectations from the child’s perspective (e.g., “Your parents tell you what to do with your life, but you want to make your own decisions” and “Your parents want you to sacrifice personal interests for the sake of the family, but you feel this is unfair”). The items are rated on a 5-point Likert scale and assess the likelihood of discrepancy occurrence (FCS-Likelihood) and the seriousness of the problem (FCS-Seriousness). The FCS-Likelihood items range from 1 (*almost never*) to 5 (*almost always*) and the FCS-Seriousness items range from 1 (*not at all*) to 5 (*extremely*). A family conflict intensity score (FCS-Intensity) can be calculated by averaging the FCS-Likelihood and FCS-Seriousness mean scores. The subscales demonstrated good internal reliability ($\alpha = .81$ –.91) and convergent validity with three family conflict items from the Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale (Lee et al., 2000). Validation of the measure revealed that the FCS-Likelihood measures both acculturation and intergenerational differences. FCS was positively correlated with participants’ and parents’ Asian orientation and negatively correlated with parents’ Western orientation (Lee et al., 2000). The α coefficients for the present study were .87 (FCS-Likelihood) and .89 (FCS-Seriousness) for the Asian-American sample and .76 (FCS-Likelihood) and .83 (FCS-Seriousness) for the European-American sample.

Center for Epidemiologic Studies Depression Scale. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) measures the frequency of 20 symptoms of depression over the past week. It uses a 4-point Likert scale ranging from 0 (*rarely or none of the time*) to 3 (*most or all of the time*), and higher scores indicate higher levels of depression. The CES-D has been frequently used with Asian Americans (Okazaki, 2000; Ying, 1988) and has detected group differences between Asian Americans and European Americans. Good internal consistency, with coefficient α s of $\geq .90$, has been observed within both Asian-American and European-American community and clinical sam-

ples. A few studies found that positive items may be endorsed less, especially among Chinese Americans, and recommended following up with a diagnostic interview (for a review of CES-D's psychometric properties with Asian-American groups, see Kalibatseva, Wu, & Leong, 2014). In this study, we conducted a measurement equivalence test, which suggested that the CES-D's mean scores can be compared between the two samples. The coefficient α s for Asian Americans and European Americans were .85 and .84, respectively.

Demographic questionnaire. The survey included questions about the birth year, gender, class standing, family income, and citizenship status of the participants.

Procedure and Data Analyses

Data were collected at three different periods in 2008, 2009–2010, and 2013. All students were recruited from the psychology student subject pool and Asian-American student organizations. Students in psychology classes were awarded credit for their participation. The study was approved by the Michigan State University Institutional Review Board. All participants read and signed a consent form before filling out the paper-and-pencil questionnaires using scantron forms. In the first period of data collection, 104 Asian Americans and 106 European Americans filled out the survey. The second (36 Asian Americans and 173 European Americans) and third set (69 Asian Americans) of participant data were collected in 2009–2010 and 2013, respectively. Comparisons of the first and the combined second and third datasets revealed no significant group differences in the main variables of interest between time points. Therefore, the data were analyzed together. Totals for all questionnaires were scored if missing data were $\leq 5\%$ (Schlomer, Bauman, & Card, 2010).

First, we conducted multiple regressions to examine whether race/ethnicity was a significant predictor of depression, loss of face, and intergenerational family conflict when age and gender were entered as covariates in the model (Hypotheses 1 and 2).

Second, simple regressions tested if loss of face and intergenerational family conflict predicted depression separately for Asian Americans and European Americans (Hypotheses 3 and 4). The calculated R^2 of each regression implied the amount of between-individual variance in depression explained by loss of face or intergenerational family conflict. In addition, Chow tests were conducted to determine whether the regression coefficients were comparable between the two groups. Lastly, a structural equation model (using Mplus v.6.12) was used to evaluate if loss of face and intergenerational family conflict mediated the relationship between race/ethnicity and depression (Hypothesis 5).

Measurement Equivalence Tests

A series of measurement equivalence tests of the LOF, FCS, and CES-D were conducted to confirm whether scores were comparable between the Asian- and European-American samples. Multi-group confirmatory factor analysis (CFA) models with a sequence of restrictions were tested using Mplus. Table 1 shows that strong (scalar) invariance is tenable for all of the three measures, which is a requirement for mean comparisons between the two groups. As previous studies recommended, we focused on comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA) to determine goodness of fit (e.g., Kline, 2011; Steenkamp & Baumgartner, 1998) because χ^2 difference tests are sensitive to large sample sizes. First, for LOF, the weak (metric) invariance model showed a reasonable fit, but the full strong invariance model significantly deteriorated the fit. Then, as the modification indexes of the output suggested, the partial strong invariance was evaluated after adding a pair of interitem correlations to the European-American group, and we confirmed that the model is tenable. For both the FCS and CES-D, the full strong invariance model was supported (see Table 1).

Table 1
Measurement Equivalence Between Asian Americans and European Americans for All Scales

Scale	CFI	TLI	RMSEA [90% CI]	χ^2 (df)	$\Delta\chi^2$ (Δdf)
LOF					
Configural invariance	-.90	.90	.06 [.05, .06]	637.09 (358)	—
Weak invariance	-.91	.90	.06 [.05, .06]	650.20 (378)	13.11 (20)
Strong invariance	.89	.88	.06 [.05, .06]	712.88 (398)	62.82** (20)
Partial strong invariance	.91	.90	.05 [.05, .06]	669.39 (396)	43.49** (2)
Strict invariance	.88	.88	.06 [.05, .06]	761.77 (419)	48.89** (21)
FCS					
Configural invariance	.95	.94	.06 [.06, .07]	619.23 (318)	—
Weak invariance	.94	.93	.07 [.06, .07]	703.76 (336)	84.53** (18)
Strong invariance	.93	.93	.07 [.06, .08]	778.59 (354)	74.83** (18)
Strict invariance	.91	.91	.08 [.07, .09]	934.05 (374)	155.46** (20)
CES-D					
Configural invariance	.91	.90	.06 [.06, .07]	659.06 (339)	—
Weak invariance	.91	.91	.06 [.06, .07]	697.42 (356)	38.36** (17)
Strong invariance	.90	.90	.06 [.06, .07]	752.35 (374)	54.93** (18)
Strict invariance	.89	.89	.06 [.06, .07]	813.29 (394)	60.94** (20)

Note. CES-D = Center for Epidemiological Studies-Depression Scale; FCS = Family Conflict Scale; LOF = Loss of Face; CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = Tucker-Lewis index; - (dash) = no change in χ^2 .

** $p < .01$.

Table 2
Descriptive Statistics and Correlations for All Variables by Racial Group

Variables	Asian American, M (SD)	European American, M (SD)	Correlations ^a				
			1	2	3	4	5
1. CES-D	20.01 (9.81)	18.25 (8.81)	1	.24**	.17*	.24**	.21**
2. LOF	89.35 (18.55)	83.85 (18.21)	.19**	1	.20**	.22**	.22**
3. FCS-Likelihood	28.14 (9.51)	18.56 (6.07)	.22**	.17**	1	.86**	.97**
4. FCS-Seriousness	24.31 (9.38)	16.62 (6.21)	.20**	.13*	.79**	1	.96**
5. FCS-Intensity	26.23 (9.11)	17.59 (5.81)	.22**	.16**	.95**	.95**	1

Note. CES-D = Center for Epidemiological Studies-Depression Scale; FCS = Family Conflict Scale; LOF = Loss of Face.

^a Values above the diagonal are correlations within the Asian-American subsample; values below the diagonal are correlations with the European-American subsample.

* $p < .05$. ** $p < .01$.

Results

Descriptives and Correlations

Table 2 shows the means, standard deviations, and correlations for all variables by racial group. Asian-American students reported higher levels of depression, loss of face, and intergenerational family conflict in both likelihood and seriousness on average than European-American students. Depression was positively associated with loss of face and intergenerational family conflict for both groups.

Group Comparisons

A series of regression analyses were conducted to evaluate whether Asian-American students scored higher on depression, loss of face, and intergenerational family conflict than European-American students. Table 3 shows all regression results with Asian Americans as the reference group. Both simple regression and multiple regression (controlling for gender and age) coefficients are listed. As predicted in Hypothesis 1, Asian-American college students reported higher depression scores than European-American college students holding age and gender constant. Likewise, Hypothesis 2 was confirmed as Asian Americans scored higher than European Americans on the culturally relevant variables loss of face and intergenerational family conflict.

Table 4 presents the regression coefficients for loss of face and intergenerational family conflict, predicting depression for the entire sample and for each racial group. Loss of face and intensity

of intergenerational family conflict significantly predicted depression among both Asian Americans and European Americans. Chow tests indicated that the comparison of regression coefficients and variance explained across groups is permissible (see Table 4). There was support for Hypothesis 3 because loss of face explained more variance in depression among Asian Americans than among European Americans. However, Hypothesis 4 was not supported because intergenerational family conflict explained comparable amounts of variance in depression for each group.

Mediation Effects

Next, a structural equation model (see Figure 1) was evaluated to examine if loss of face and family conflict mediated the association between race/ethnicity and depression. Each construct's subscores (one for LOF, two for FCS, and four for CES-D) were specified as observed variables: a total aggregation model was adopted for LOF and partial aggregation models for FCS and CES-D (Bagozzi & Heatherton, 1994). The mediation model showed acceptable fit based on multiple indices (see Table 5). We found that the direct effect from race/ethnicity to depression became very small and was no longer statistically significant, which suggests that loss of face and family conflict fully mediated the relationship between race/ethnicity and depression. Race/ethnicity indirectly affected depression through loss of face.

We additionally fitted our data to the alternative model in which depression mediates the relationship between race/ethnicity and

Table 3
Regression Coefficients of Race Predicting Depression, Loss of Face, and Family Conflict With and Without Covariates

Dependent variable	Simple regression ^a			Multiple regression ^b		
	B (SE)	t	p	B (SE)	t	p
Depression	1.76 (0.85)	2.08	.038	0.70 (0.29)	2.37	.018
Loss of face	5.50 (1.68)	3.27	.001	1.83 (0.58)	3.15	.001
Family conflict	8.64 (.068)	12.75	<.001	2.93 (0.24)	12.40	<.001

Note. Asian American = 0, European American = 1.

^a No covariates were entered into the model. ^b Gender and age were entered into the model as covariates.

Table 4
Simple Regression Coefficients of Loss of Face and Family Conflict Predicting Depression in the Full, Asian-American, and European-American Samples

Variable	Sample	B (SE)	b	t	p	R ²
Loss of face	Full	.11 (.02)	.22	4.86	<.001	.05
	AA	.13 (.04)	.24	3.52	.001	.06
	EA	.09 (.03)	.19	3.14	.002	.03
Family conflict	Full	.25 (.05)	.23	5.23	<.001	.05
	AA	.23 (.07)	.21	3.14	.002	.05
	EA	.34 (.09)	.22	3.77	<.001	.05

Note. Chow test (LOF): $F(2, 485) = 1.26, p > .05$; Chow test (FCS): $F(2, 486) = .58, p > .05$. AA = Asian American; EA = European American.

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

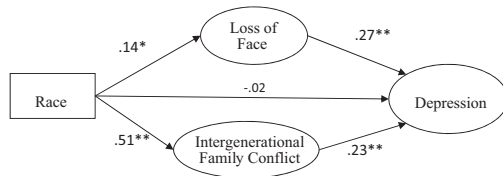


Figure 1. Path diagram of loss of face and family conflict mediating the relationship between race and depression after controlling for age and gender (standardized coefficients). * $p < .05$. ** $p < .01$.

LOF and FC to examine whether we could obtain a substantial improvement in model fit. However, a direct comparison between these two models may not be warranted because they are not nested and the number of estimated parameters are not the same between the two models. The results showed that the alternative model was marginally better based on χ^2 , CFI, and AIC whereas the original model had a better BIC (see Table 5).

Discussion

The current study examined two culturally relevant psychological variables—loss of face and intergenerational family conflict—and their relationship with depression among Asian-American and European-American college students. The goal of the study was to disentangle existing racial/ethnic differences in self-reported depression scores between Asian-American and European-American students by examining psychological variables (Leong et al., 2013). The study replicated previously observed racial/ethnic differences in depression among college student samples (Abe & Zane, 1990; Okazaki, 1997; Young et al., 2010). Specifically, Asian-American students had higher depression scores on the CES-D than European-American students after controlling for gender and age. Whereas this difference was statistically significant, its effect size was small. Regardless, paired with the findings that Asian Americans tend to seek mental health services less frequently and receive less adequate depression treatment (Alegría et al., 2008), this finding is concerning and emphasizes the need for continued assessment and treatment of depressive symptoms among Asian-American college students.

In addition, we tested the cultural relevance of loss of face and intergenerational family conflict and found that, on average, Asian Americans reported higher mean scores on both variables than European Americans after measurement equivalence was established. Whereas the effect size remained small for loss of face, it was particularly large for intergenerational family conflict. These findings provide validation that these constructs are relevant to both racial/ethnic groups, but intergenerational family conflict has stronger cultural specificity to Asian Americans. On the basis of these results, intergenerational family conflict may be more culturally relevant to Asian Americans than European Americans, as has been suggested by the empirical literature (Lee et al., 2000; Lee & Liu, 2001). For instance, generational status could play a role, such that family conflict may be specifically relevant to first- and second-generation individuals within immigrant families.

Further disentangling of the association of loss of face and intergenerational family conflict with depression among each of the racial/ethnic groups showed that loss of face explained slightly more variance in depression among Asian Americans (5%) than European Americans (3%). Intergenerational family conflict explained 5% of the variance in depression among both groups. These findings, paired with similar observed correlation coefficients among the two groups, suggest that the selected culturally relevant variables relate to depression similarly across the two groups. In other words, intergenerational family conflict may be more common among Asian Americans than European Americans; however, it is commonly found in the mainstream U.S. society, which values individualism during adolescence because of the expectation for individuals to form an independent identity (Ying & Han, 2007), and it is linked to depressive symptoms across groups.

Overall, loss of face and intergenerational family conflict are significantly associated with depression. Both of these constructs capture the importance of relational harmony and suggest that relational disruptions may relate to depressive symptoms. Specifically, failure to meet others' expectations may result in loss of face, which is associated with negative affect. Likewise, intergenerational family conflict may disrupt family cohesion and more serious family conflict predicts higher depression among college students, which is consistent with previous research findings

Table 5
Path Coefficients Estimated From the Structural Equation Model Controlling for Age and Gender

Dependent variable	Predictor	β (SE)	t	p	b	R^2
Direct effects	Depression \leftarrow Race	-0.17 (0.45)	-0.37	.712	-.02	.13
	\leftarrow LOF	0.06 (0.01)	5.35	<.001	.27	
	\leftarrow FCS	0.11 (0.03)	3.89	<.001	.23	
	LOF \leftarrow Race	5.34 (1.72)	3.11	.002	.14	.02
	FCS \leftarrow Race	8.55 (0.72)	11.95	<.001	.51	.26
Indirect effects	Depression \leftarrow LOF \leftarrow Race	0.03 (0.11)	2.69	.007	.04	
	Depression \leftarrow FCS \leftarrow Race	0.91 (0.25)	3.72	<.001	.12	

Note. Original model: $\chi^2(30) = 84.67$; RMSEA 90% CI [.05, .08]; CFI = .96; TLI = .95; SRMR = .04. Alternative model: $\chi^2(28) = 74.20$; RMSEA 90% CI [.04, .08]; CFI = .97; TLI = .95; SRMR = .04.

among both Asian-American and European-American adolescents (Juang et al., 2007) and adults (Leong et al., 2013). The consistency with previous research suggests that these findings may generalize to late adolescents and college students, but it is difficult to determine whether they are applicable to older adults.

This research has important clinical implications because it suggests that loss of face and intergenerational family conflict are associated with depression and need to be directly included in the assessment and intervention process. In particular, therapists need to ask clients about their social networks and close relationships to assess the importance of maintaining status or face. Moreover, saving face in the therapeutic relationship may be crucial for clients who are sensitive to losing face (Kim, Atkinson, & Umemoto, 2001). Failure to attend to the client's need to save face (e.g., through affirmative and culturally sensitive discussion of expectations for the therapeutic relationship) could result in premature termination or dropout. Concern with loss of face may also be associated with underutilization of mental health services among Asian Americans (Leong et al., 2011; Zane & Yeh, 2002). Furthermore, addressing intergenerational family conflict may be particularly important in the treatment of depression among adolescents and college students. Family therapy could provide a potential outlet to do this in a culturally sensitive way (Sue, Zane, Nagayama Hall, & Berger, 2009). At the same time, this study supports the assertion that Asian-American clients should not be stereotyped because loss of face and intergenerational family conflict may vary in importance among clients and are also relevant to European Americans. Developing clinical formulations and treatment plans through the assessment of the relevance of these factors on the basis of open discussion and client report, rather than presuming the relevance of specific factors based on a client's demographic characteristics, may lead to stronger alliance, more culturally sensitive practice, and more effective therapies.

Despite the insight that this study provides on disentangling racial/ethnic differences in depression, there are several limitations that need to be addressed. First, the study recruited European Americans and Asian Americans without specifically inquiring about their identification with an ethnic subgroup. This issue has been referred to as ethnic gloss, or the use of a simplistic category to describe rich and culturally variable ethnocultural groups (Trimble & Dickson, 2005). It was also not possible to establish the response rates of the study because of the nature of recruitment. In addition, the study relied entirely on college students, which cautions against generalization of the results to other groups. Moreover, there are various other culturally relevant psychological variables, such as self-construal and emotion suppression, that may contribute to depression but were not examined. In addition, although the variables in this study were significantly associated with depression, they explained a relatively small percentage of the variance in depression. Another limitation is the reliance on self-report questionnaires because it may introduce social desirability bias or random responding. Future research needs to include information on the participants' ethnicity and identify other culturally relevant variables that are specific to ethnic subgroups. Furthermore, using other data collection methods (e.g., experimental design, focus groups) and populations will strengthen the generalizability of the results.

Overall, this study contributes to the existing literature by examining specific culturally salient psychological variables that

may explain racial/ethnic differences in depression between Asian-American and European-American college students. The disentangling approach (Leong et al., 2013) seems to be a promising approach for avoiding stereotypes based on race/ethnicity and other demographic variables and may enhance our understanding of existing psychological mechanisms underlying health disparities and development of methods for their alleviation. Future research needs to extend the disentangling approach to other culturally relevant topics (e.g., health disparities, educational disparities, and immigration health paradox) that have been previously examined primarily using a racial or ethnic group differences framework. Moving away from comparisons based solely on demographic variables and including psychological variables will help us disentangle the psychological mechanisms underlying complex clinical phenomena such as depression.

References

- Abe, J. S., & Zane, N. W. S. (1990). Psychological maladjustment among Asian and White American college students: Controlling for confounds. *Journal of Counseling Psychology, 37*, 437–444. <http://dx.doi.org/10.1037/0022-0167.37.4.437>
- Alegria, M., Chatterji, P., Wells, K., Cao, Z., Chen, C. N., Takeuchi, D., . . . Meng, X. L. (2008). Disparity in depression treatment among racial and ethnic minority populations in the United States. *Psychiatric Services, 59*, 1264–1272. <http://dx.doi.org/10.1176/ps.2008.59.11.1264>
- Bagozzi, R. P., & Heatherton, T. F. (1994). A general approach to representing multifaceted personality constructs: Application to state self-esteem. *Structural Equation Modeling, 1*, 35–67. <http://dx.doi.org/10.1080/10705519409539961>
- Betancourt, H., & Lopez, S. R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist, 48*, 629–637. <http://dx.doi.org/10.1037/0003-066X.48.6.629>
- Eisenberg, D., Hunt, J., & Speer, N. (2013). Mental health in American colleges and universities: Variation across student subgroups and across campuses. *Journal of Nervous and Mental Disease, 201*, 60–67. <http://dx.doi.org/10.1097/NMD.0b013e31827ab077>
- Greenberger, E., & Chen, C. (1996). Perceived family relationships and depressed mood in early and late adolescence: A comparison of European and Asian Americans. *Developmental Psychology, 32*, 707–716. <http://dx.doi.org/10.1037/0012-1649.32.4.707>
- Helms, J. E., Jernigan, M., & Mascher, J. A. (2005). The meaning of race in psychology and how to change it: A methodological perspective. *American Psychologist, 60*, 27–36. <http://dx.doi.org/10.1037/0003-066X.60.1.27>
- Hwang, W.-C., & Wood, J. J. (2009). Acculturative family distancing: Links with self-reported symptomatology among Asian Americans and Latinos. *Child Psychiatry and Human Development, 40*, 123–138. <http://dx.doi.org/10.1007/s10578-008-0115-8>
- Juang, L. P., Syed, M., Cookston, J. T., Wang, Y., & Kim, S. Y. (2012). Acculturation-based and everyday family conflict in Chinese American families. *New Directions for Child and Adolescent Development, 2012*, 13–34. <http://dx.doi.org/10.1002/cd.20002>
- Juang, L. P., Syed, M., & Takagi, M. (2007). Intergenerational discrepancies of parental control among Chinese American families: Links to family conflict and adolescent depressive symptoms. *Journal of Adolescence, 30*, 965–975. <http://dx.doi.org/10.1016/j.adolescence.2007.01.004>
- Kalibatseva, Z., Wu, I. H. C., & Leong, F. T. L. (2014). Assessing depression and suicidality in Asian-Americans. In L. T. Benuto, N. Thaler, & B. D. Leany (Eds.), *Guide to Psychological Assessment with Asians* (pp. 181–198). New York, NY: Springer.

- Kim, B. S. K., Atkinson, D. R., & Umemoto, D. (2001). Asian cultural values and the counseling process: Current knowledge and directions for future research. *The Counseling Psychologist, 29*, 570–603. <http://dx.doi.org/10.1177/0011000001294006>
- Kline, R. K. (2011). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.
- Lam, B. T. (2005). Self-construal and depression among Vietnamese-American adolescents. *International Journal of Intercultural Relations, 29*, 239–250. <http://dx.doi.org/10.1016/j.ijintrel.2005.05.007>
- Lee, R. M., Choe, J., Kim, G., & Ngo, V. (2000). Construction of the Asian American Family Conflicts Scale. *Journal of Counseling Psychology, 47*, 211–222. <http://dx.doi.org/10.1037/0022-D167/47.2211>
- Lee, R. M., & Liu, H.-T. T. (2001). Coping with intergenerational family conflict: Comparison of Asian American, Hispanic, and European American college students. *Journal of Counseling Psychology, 48*, 410–419. <http://dx.doi.org/10.1037/0022-0167.48.4.410>
- Leong, F. T. L., Kim, H. H. W., & Gupta, A. (2011). Attitudes toward professional counseling among Asian-American college students: Acculturation, concept of mental illness, and loss of face. *Asian American Journal of Psychology, 2*, 140–153. <http://dx.doi.org/10.1037/a0024172>
- Leong, F. T. L., Lee, S., & Chang, D. (2008). Counseling Asian Americans. In P. Pedersen, J. Draguns, W. Lonner, & J. Trimble (Eds.), *Counseling across cultures* (pp. 113–128). Thousand Oaks, CA: Sage. <http://dx.doi.org/10.4135/9781483329314.n7>
- Leong, F., Park, Y. S., & Kalibatseva, Z. (2013). Disentangling immigrant status in mental health: Psychological protective and risk factors among Latino and Asian American immigrants. *American Journal of Orthopsychiatry, 83*, 361–371. <http://dx.doi.org/10.1111/ajop.12020>
- Mak, W. W. S., Chen, S. X., Lam, A. G., & Yiu, V. F. L. (2009). Understanding distress: The role of face concern among Chinese Americans, European Americans, Hong Kong Chinese, and Mainland Chinese. *The Counseling Psychologist, 37*, 219–248. <http://dx.doi.org/10.1177/0011000008316378>
- Mak, W. W. S., Law, R. W., & Teng, Y. (2011). Cultural model of vulnerability to distress: The role of self-construal and sociotropy on anxiety and depression among Asian Americans and European Americans. *Journal of Cross-Cultural Psychology, 42*, 75–88. <http://dx.doi.org/10.1177/0022022110361713>
- Markus, H. R. (2008). Pride, prejudice, and ambivalence: Toward a unified theory of race and ethnicity. *American Psychologist, 63*, 651–670. <http://dx.doi.org/10.1037/0003-066X.63.8.651>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253. <http://dx.doi.org/10.1037/0033-295X.98.2.224>
- Miller, E. J., & Chung, H. (2009). A literature review of studies of depression and treatment outcomes among U.S. college students since 1990. *Psychiatric Services, 60*, 1257–1260. <http://dx.doi.org/10.1176/ps.2009.60.9.1257>
- Norasakkunkit, V., & Kalick, S. M. (2002). Culture, ethnicity, and emotional distress measures: The role of self-construal and self-enhancement. *Journal of Cross-Cultural Psychology, 33*, 56–70. <http://dx.doi.org/10.1177/0022022102033001004>
- Okazaki, S. (1997). Sources of ethnic differences between Asian American and white American college students on measures of depression and social anxiety. *Journal of Abnormal Psychology, 106*, 52–60. <http://dx.doi.org/10.1037/0021-843X.106.1.52>
- Okazaki, S. (2000). Asian American and White American differences on affective distress symptoms: Do symptom reports differ across reporting methods? *Journal of Cross-Cultural Psychology, 31*, 603–625. <http://dx.doi.org/10.1177/0022022100031005004>
- Park, I. J. K., Sulaiman, C., Schwartz, S. J., Kim, S. Y., Ham, L. S., & Zamboanga, B. L. (2011). Self-construal and social anxiety among Asian American college students: Testing emotion suppression as a mediator. *Asian American Journal of Psychology, 2*, 39–50. <http://dx.doi.org/10.1037/a0023183>
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401. <http://dx.doi.org/10.1177/0146621677001003006>
- Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology, 57*, 1–10. <http://dx.doi.org/10.1037/a0018082>
- Steenkamp, J. B. E. M., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research, 25*, 78–107. <http://dx.doi.org/10.1086/209528>
- Sue, S., Zane, N., Nagayama Hall, G. C., & Berger, L. K. (2009). The case for cultural competency in psychotherapeutic interventions. *Annual Review of Psychology, 60*, 525–548. <http://dx.doi.org/10.1146/annurev.psych.60.110707.163651>
- Szapocznik, J., & Kurtines, W. M. (1993). Family psychology and cultural diversity: Opportunities for theory, research and application. *American Psychologist, 48*, 400–407. <http://dx.doi.org/10.1037/0003-066X.48.4.400>
- Trimble, J. E., & Dickson, R. (2005). Ethnic gloss. In C. B. Fisher & R. M. Lerner (Eds.), *Encyclopedia of applied developmental science* (Vol. I, pp. 412–415). Thousand Oaks, CA: Sage.
- Ying, Y. W. (1988). Depressive symptomatology among Chinese-Americans as measured by the CES-D. *Journal of Clinical Psychology, 44*, 739–746. [http://dx.doi.org/10.1002/1097-4679\(198809\)44:5<739::AID-JCLP2270440512>3.0.CO;2-0](http://dx.doi.org/10.1002/1097-4679(198809)44:5<739::AID-JCLP2270440512>3.0.CO;2-0)
- Ying, Y. W., & Han, M. (2007). The longitudinal effect of intergenerational gap in acculturation on conflict and mental health in Southeast Asian American adolescents. *American Journal of Orthopsychiatry, 77*, 61–66. <http://dx.doi.org/10.1037/0002-9432.77.1.61>
- Young, C. B., Fang, D. Z., & Zisook, S. (2010). Depression in Asian-American and Caucasian undergraduate students. *Journal of Affective Disorders, 125*, 379–382. <http://dx.doi.org/10.1016/j.jad.2010.02.124>
- Zane, N. (1991). *An empirical examination of loss of face among Asian Americans*. Unpublished manuscript, Graduate School of Education, University of California–Santa Barbara.
- Zane, N. (2000). Loss of Face Scale. In *Psychosocial measures for Asian Americans: Tools for practice and research*. Retrieved from <http://www.columbia.edu/cu/ssw/projects/pmap/docs/zaneloss.pdf>
- Zane, N., & Yeh, M. (2002). The use of culturally based variables in assessment: Studies on loss of face. In K. S. Kurasaki, S. Okazaki, & S. Sue (Eds.), *Asian American mental health: Assessment theories and methods* (pp. 123–138). New York, NY: Kluwer. http://dx.doi.org/10.1007/978-1-4615-0735-2_9

Received May 16, 2016

Revision received November 19, 2016

Accepted December 5, 2016 ■