An Examination of Ethnic Identity, Self-Compassion, and Acculturative Stress in Asian International Students

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**ABSTRACT**

There is a dearth of research examining psychosocial factors that contribute to Asian international students’ acculturative stress. This study examines: (a) whether ethnic identity associates with acculturative stress, (b) whether other-group orientation mediates the relation between ethnic identity and acculturative stress, and (c) whether self-compassion moderates the relation between ethnic identity and acculturative stress. Results indicated that a stronger ethnic identity was associated with heightened acculturative stress. Self-compassion was significantly negatively associated with acculturative stress. Asian international students who strongly affiliated with their own ethnic group reported an increased openness to other ethnic groups and, in turn, reported reduced acculturative stress. Additional studies should
examine other mediators that may explain the positive correlation between ethnic identity and acculturative stress.

Keywords: acculturative stress, Asian students, ethnic identity, international students, self-compassion

INTRODUCTION

In recent years, the United States has continued to see an influx in the number of international students who choose to pursue postsecondary education in the nation’s colleges and universities (i.e., 1,078,822 in 2016–2017 academic year; Institute of International Education, 2017a). The blossoming international student population has contributed significantly to America’s scientific and technical research programs while having a positive impact on the U.S. economy (i.e., over $39.4 billion to the U.S. economy in 2016; Institute of International Education, 2017a). Thus, campuses around the country have begun to create and maintain undergraduate and graduate programs in aims of increasing international student populations. A substantial portion of these international students, 61% in the 2015–16 and 2016–17 academic years, come from Asian countries, such as China, India, South Korea, Taiwan, Japan, and Vietnam (Institute of International Education, 2017b).

In considering students’ adjustment to college, all university students face certain environmental changes (e.g., transitioning to a new environment) and academic challenges as they adjust to college (Grayson, 2003). However, international students often face additional stressors unique to their non-domestic status. Such stressors may include psychosocial (e.g., concern about the national immigration context, difficulty transitioning to new social norms, decreased in cultural self-efficacy and sense of belonging, experiencing stigmatization, homesickness, and lack of social support; Y. W. Wang, Lin, Pang, & Shen, 2007; K. T. Wang, Wei, Zhao, Chuang, & Li, 2015), as well as academic (e.g., concerns of English competency; Mahmood, 2014) or vocational (e.g., problems seeking employment and housing; J.-C. G. Lin & Yi, 1997). These factors are also experienced while concurrently facing discrimination (Constantine, Kindaichi, Okazaki, Gainor, & Baden, 2005; Wei, Ku, Russell, Mallinckrodt, & Liao, 2008). Gaining a greater understanding of what contributes to or reduces the challenges international students face is of the utmost importance for university administrators, faculty, and counselors.
LITERATURE REVIEW

Acculturative Stress

The stresses associated with the cultural transitions that many international students encounter is described in psychological literature as acculturative stress (Berry, 1997, 2006). Berry’s (2006) acculturative stress model suggests that acculturative stress occurs when individuals are faced with significant challenges or obstacles related to acculturation that are not successfully changed by one’s behavior. This is particularly likely to occur when individuals are lacking coping strategies and social support (Sam & Berry, 2010). This type of stress has been found to influence various student outcomes including academic adjustment (Poyrazli & Kavanaugh, 2006) and psychological outcomes such as general mental health, anxiety, and depressive symptomatology (Constantine, Okazaki, & Utsey, 2004; J. S. Lee, Koeske, & Sales, 2004; Wei et al., 2007).

Research consistently finds that Asian international students in the United States and Canada report heightened acculturative stress compared with European international students (Akhtar & Kröner-Herwig, 2015; Cross, 1995; Hansen, Shneyderman, McNamara, & Grace, 2018; Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004; Yeh & Inose, 2003). This may be influenced by increased cultural distance (i.e., differing more greatly in their overall cultural way of life) and reduced cultural fit (i.e., having personality traits and self-construals that are less like the dominant cultural values in the North America) compared with European students, which scholarship suggests is linked to heightened perceived discrimination and difficulties in sociocultural adaptation compared with their European counterparts (J. J. Lee, 2010; J. Y. Lee & Ciftci, 2014; Sodowski & Plake, 1992, Yeh & Inose, 2003). The literature reveals mixed findings when comparing Asian students’ acculturative stress relative to students from regions outside of Europe, with some studies reporting lower levels of acculturative stress relative to Latin American and African international students (Constantine et al., 2004) or no difference between Asians, Latin Americans, and Africans (Wilton & Constantine, 2003; Yeh & Inose, 2003).

While more research is needed to understand the extent to which Asian international students experience acculturative stress, there is also a dearth of research examining factors that influence acculturative stress. A systematic review of research (Zhang & Goodson, 2011) examining the psychosocial adjustment of international students in the US reveals there are a total of only 50 studies examining predictors of acculturative stress among Asian students.
international students. Among these studies, English proficiency, social support, gender, age, and coping strategies were the most frequently reported predictors (e.g., Akhtar & Kröner-Herwig, 2015; Bai, 2016; Mahmood, 2014; Poyrazli et al., 2004; Yeh & Inose, 2003). While a focus on demographic and environmental factors has shed light on acculturative stress, there is a greater need for research examining more proximal psychosocial factors that might contribute to international students’ increased acculturative stress. Proximal psychosocial variables, deeper process variables that more closely reflect an individual’s experience and shape the ways individuals perceive and interact with their social environments, are more closely related to the origin of a phenomenon, rather than more distal demographic or environmental variables (Cokley & Awad, 2007). Given the quick and continued growth of Asian international students’ enrollment, combined with the increased risk for experiencing acculturative stress as university students relative to Europeans, it is particularly important for research to understand what psychosocial variables contribute to acculturative stress within this population.

One contributing factor may relate to how Asian international students identify themselves. It is not uncommon to hear Asian international students report “not being myself” or “acting like an American” to survive in the new environment (e.g., M. Lin, 2012). On one hand, due to the large cultural differences between Asian countries and the US, it may be critical for these students to adopt new behaviors and identities to thrive in their new environment. On the other hand, distancing oneself from one’s heritage culture often associates with poor psychological well-being (R. M. Lee & Yoo, 2004; Smith & Silva, 2011). Therefore, the first two goals of the current study is to examine how two aspects of identity—ethnic identity and other-group orientation—associate with acculturative stress.

**Ethnic Identity**

Ethnic identity refers to a subjective sense of belonging to one’s ethnic group and involves an exploration of one’s ethnicity, having knowledge of and a preference for the group, and being involved in ethnic group activities (Phinney 1992, 1996). More specifically, Phinney conceptualized ethnic identity as a multidimensional construct, with one dimension including Affirmation, Belonging, and Commitment (ABC), or positive feelings and a sense of pride and belonging toward one’s ethnic group.

Much of the literature has overlooked the relevance of ethnic identity to immigrant populations, focusing heavily on ethnic identity in U.S. domestic racial-ethnic minority populations (see R. M. Lee, Falbo, Doh, & Park, 2001,
and R. M. Lee, Yun, Yoo, & Nelson, 2010, for exceptions). However, ethnic identity can represent an important part of the acculturation process, as immigrants’ cultural identities may be heightened in navigating the extent to which individuals seek to maintain connection to their culture of origin or assimilate to the host culture (Berry, Phinney, Sam, & Vedder, 2006). This may be particularly true of undergraduate students in the developmental stage of emerging adulthood, in which individuals tend to engage in heightened identity exploration and commitment, including exploration of ethnic identity (Schwartz, Zamboanga, Luyckx, Meca, & Ritchie, 2013). Further, ethnic identity may be a particularly relevant and salient construct for Asian international students, as many are moving from ethnically homogenous environments to racially diverse environments where they must adjust to becoming ethnic minorities (R. M. Lee et al., 2010).

Existing literature suggests a positive relation between ethnic identity and acculturative stress exists, such that those with a stronger ethnic identity report higher levels of acculturative stress, and that higher levels of ethnic identity exacerbate the negative effect of acculturative stress on psychological well-being (Kim, Hogge, & Salvisberg, 2014; Smith & Silva, 2011). The seemingly deleterious influence of ethnic identity on adjusting to a new culture may be understood in light of scholarship finding that high acculturative stress is associated with (a) perceived dissonance between the cultural norms and values of the culture of origin and the host culture (Haritatos & Benet-Martinez, 2002) and (b) heightened perceptions or more frequent experiences of discrimination in the host culture (D. S. Lee & Padilla, 2014). Thus, those who are strongly connected to an ethnic group that is culturally distant from the host culture and/or those who are very aware of ethnic discrimination based on their strong affiliation with their in-group may experience increased acculturative stress (Musso, Inguglia, & Coco, 2016).

Conversely, a recent meta-analysis suggests ethnic identity has been consistently positively associated with salubrious outcomes for ethnic minority groups in the US, such as psychological well-being (Smith & Silva, 2011). In Iwamoto and Liu’s (2010) examination of factors influencing Asian American and Asian international college students’ psychological well-being, a positive relation between ABC and psychological well-being was found. In line with these findings, scholars have suggested that a strong sense of ethnic identity, including positive feelings and a sense of pride toward one’s ethnic group, may serve as a protective factor that promotes resilience for collegians of color at predominantly White institutions (McClain et al., 2016; Williams, Chapman, Wong, & Turkheimer, 2012).
Therefore, the scholarship remains unclear in identifying whether a strong sense of belonging to one’s ethnic group may serve as a protective or risk factor for Asian international students. Thus, the first goal of the present study was to examine the association between ethnic identity (ABC) and acculturative stress in an Asian international students sample.

**Other-Group Orientation**

When examining the identity of migrants, it is important to recognize that identity reflects not only a person’s orientation toward their own culture of origin, but also their orientation toward other cultural groups (Berry, 1997). Scholars have suggested that individuals’ identification with other groups, such as a host culture, is independent of their ethnic identity (R. M. Lee et al., 2001). Phinney (1996) conceptualized other-group orientation (OGO) as one’s comfort interacting with and positive attitudes toward those outside of one’s ethnic group. Phinney, Jacoby, and Silva (2007) described that those with an open orientation toward other ethnic groups tend to have a more positive intergroup approach and are more appreciative and accepting of different worldviews and lifestyles.

Scholars have examined whether OGO is a variable more proximal to psychological outcomes. In a study of Asian Americans, R. M. Lee (2003) found that OGO buffered the negative effect of perceived discrimination on psychological well-being. Thus, more positive feelings toward and increased comfort with ethnic out-group members may ameliorate the deleterious impact of psychosocial stressors. Further, in a sample of immigrants to Italy, Musso and colleagues (2016) explored the ethnic attitudes of in-group favoritism and out-group derogation, finding that these attitudes mediated the positive relation between ABC and acculturative stress. Therefore, the ways in which individuals relate to other groups may underlie the link between an increased sense of pride and belongingness to one’s ethnic group and increased acculturative stress. However, no study to date has examined OGO as a mediator of the relation between ethnic identity and acculturative stress in a U.S. Asian international student population. Thus, the second goal of the present study is to test such a mediation model.

**Self-Compassion**

Given the benefit that having a strong sense of positive feelings and pride toward one’s ethnic group may have in fostering psychological well-being and coping with discrimination (Iwamoto & Liu, 2010; Williams et al., 2012),
it is important that scholarship also shed light on factors that may allow international students to reap the benefits of a strong connection to ethnic identity while reducing any detrimental influence that may lead to increased acculturative stress. Self-compassion is one such factor that may act as a buffer against distress (Bluth & Neff, 2018).

Self-compassion is a conceptualization of a healthy attitude and relationship with oneself, including the ability to acknowledge that “suffering, failure, and inadequacies” are part of the shared human experience, and that all people, including oneself, are worthy of compassion (Neff, 2003b, p. 87). Neff (2003b) identified three main areas of self-compassion: self-kindness, common humanity, and mindfulness. Self-kindness involves extending kindness, instead of harsh criticism or judgment, to oneself. Common humanity involves the understanding that one’s experience is part of the human experience and, therefore, understanding it as not an isolating experience. Lastly, mindfulness involves the gentle holding onto of one’s painful feelings rather than avoiding or over-identifying with them. By adopting a mindful perspective, negative emotions can be transformed into a more positive state, which allows for a better understanding of one’s immediate situation and the appropriate course of action. Scholarship has shown that increased self-kindness, common humanity, and mindfulness predict decreased depression, stress, and anxiety as well as increased happiness and life satisfaction (Neff, 2016).

Leary, Tate, Adams, Allen, and Hancock (2007) found that self-compassion moderates reactions to distressing situations, including failure, rejection, embarrassment, and other negative events. Wong and Mak (2013) also found that self-compassionate people are more accurate in self-evaluation, less likely to self-criticize or be defensive, and can reduce the impact of negative events on their lives. Self-compassion appears to be a useful emotion regulation strategy (Neff, 2003b). Neff, Rude, and Kirkpatrick (2007) found that self-compassionate individuals are not harshly self-critical, and therefore are able to acknowledge areas of growth that need changing. Their study of self-compassion in relation to the five-factor model of personality traits showed that self-compassion was significantly related to curiosity and exploration, thus reflecting that openness to the world is related to openness and acceptance with oneself. The aforementioned study found self-compassion had a significant positive association with self-reported measures of happiness, optimism, wisdom, personal initiative, curiosity, agreeableness, and conscientiousness.

Further, research exhibits how self-compassion is associated with adaptive academic motivational patterns. Neff, Hsieh, and Dejitterat (2005)
found that self-compassionate individuals bypass the self-evaluation process, approach failure as a learning opportunity, and focus more at mastery of a task. Instead of experiencing “harsh self-criticism, isolation, and over-identification in the face of failure,” self-compassion provides students with “self-kindness, a sense of common humanity, and emotional balance” (p. 284).

For international students, acculturative stress may impact academic adjustment, overall mental well-being, and anxiety and depressive symptomology, especially among those with limited coping skills (Ra & Trusty, 2015; Sam & Berry, 2010). Self-compassion may serve as a protective factor against negative events, generating positive self-feelings when experiencing difficulties (Leary et. al., 2007), and has been found to be a predictor of college students’ well-being (Neely, Schallert, Mohammed, Roberts, & Chen, 2009). Therefore, the third goal of the present study was to examine whether self-compassion is negatively associated with acculturative stress among Asian international students and whether self-compassion can mitigate a negative association between ethnicity identity and acculturative stress.

As available scholarship on self-compassion among Asian individuals, particularly students, grows, a significant relation has been found between self-compassion and well-being in several Asian cultures, including Chinese, Hong Kong Chinese, Thai, and Taiwanese (Birkett, 2014; Neff, Pisitsungkagarn, & Hsieh 2008; Yang, 2016). Thus, self-compassion may be beneficial for Asian international students as they navigate acculturative stress.

RESEARCH METHOD

The primary purpose of the present study is to examine the influence of ethnic identity, OGO, and self-compassion on acculturative stress in a sample of Asian international students.

Participants

The data used in the current study is a part of the 2012–2013 University New Students Census (UNSC). The UNSC is an annual questionnaire given to new students at a large university in the Mid-Atlantic region. This 230-item questionnaire includes demographic items and a series of psychometric measures intended to provide university staff and administrators insight into new students’ attitudes and behaviors. Prior to completion of the
questionnaire, students completed an informed consent notifying them that their participation was voluntary and that the data resulting from their participation may be used for future research. As part of a new student’s summer orientation, students received an invitational email to complete an online survey package: The University New Student Census. Two reminder emails were sent to those who received an initial invitation and have not completed the online survey package to encourage students’ participation. The time gap between the initial invitation, the first reminder email, and the second reminder email was approximately 1–2 weeks. All the students’ participation was voluntary and anonymous, and participants’ data was retrieved from the archival database.

The sample in the present study included the Asian international undergraduate students represented in the larger university UNSC sample; selection criteria include: (a) student visa status (i.e., on a student visa), and (b) racial/ethnic background (i.e., Asian). Participants were 266 Asian international undergraduate students (female = 127; male = 139) with ages ranging from 17 to 25 (M = 19.08; SD = 1.76). One hundred and sixty-nine students were freshmen and 96 students were new transfer students from other universities with years of living in the US ranging from 1–2 years (M = 1.8; SD = 0.40). Fifty-nine reported English as their native language, while 207 reported English as their second language.

The following hypotheses were proposed:

H1: In line with scholarship suggesting that those with stronger ethnic identity report higher levels of acculturative stress (Kim et al., 2014; Musso et al., 2016), a positive association will exist between ethnic identity (ABC) and acculturative stress.

H2: OGO will serve as a significant mediator of the relation between ABC and acculturative stress—i.e., ethnic identity (ABC) will be negatively associated with OGO; OGO will be negatively related to acculturative stress; and ABC will have an indirect effect on acculturative stress through OGO.

H3: In line with scholarship suggesting that self-compassion associated with collegians’ psychological well-being in samples across cultures (Birkett, 2014; Neely et al., 2009), self-compassion will be negatively associated with acculturative stress and will moderate the relation between ethnic identity (ABC) and acculturative stress, such that
higher levels of self-compassion will attenuate the relation between ABC and acculturative stress.

**Acculturative Stress Scale for International Students**

Acculturative stress was measured using the Acculturative Stress Scale for International Students (ASSIS; Sandhu & Asrabadi, 1994). This measure consists of 36 items and is designed to assess seven aspects of international students’ acculturative stress, including perceived discrimination, homesickness, perceived hate/rejection, fear and stress due to change, guilt and non-specific concerns. Sample items from this scale include “I feel nervous to communicate in English” and “I feel sad living in unfamiliar surroundings here.” A 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), where a higher score represents higher level of acculturative stress, was deployed. The ASSIS has shown adequate reliability, as studies using a total score have reported Cronbach’s $\alpha$ ranging from .87 to .95 (Sandhu & Asrabadi, 1994; Yeh & Inose, 2003; Wei et al., 2007). As recommended, the total score was used in the current study. The Cronbach’s $\alpha$ for the current study was .97.

**Multigroup Measure of Ethnic Identity-R**

The Multigroup Measure of Ethnic Identity-R (MEIM-R; Phinney & Ong, 2007) is a 12-item measurement intended to examine behaviors and attitudes related to ethnic identity development. The MEIM-R uses a 5-point Likert scale format in which responses range from 1 (strongly disagree) to 5 (strongly agree). Two of three subscales, ABC and OGO, were used in the current study. ABC consists of three items and measures components of belonging, attitudes, and self-identification with one’s group; higher scores indicate more positive affirmation of one’s group and clearer sense of commitment. OGO consists of six items and examines an individual’s attitudes toward interactions with those from other ethnic groups; higher scores suggest more positive attitudes towards interactions with people from other ethnic groups. Reliability coefficients for the scale ranged from .76 to .91. The general reliability and validity of the MEIM-R has also been confirmed through numerous studies (Phinney & Ong, 2007; Yoon, 2011). In the current study, the Cronbach’s $\alpha$ for ABC and OGO were .88 and .83, respectively.
Self-Compassion Scale

Self-compassion was measured using the Self-Compassion Scale (SCS; Neff, 2003a). This measure is comprised of 26 items and examines how an individual may be kind and understanding toward oneself rather than being self-critical in instances of pain or failure. SCS uses a 5-point Likert scale ranging from 1 (Almost Never) to 5 (Almost Always). The SCS consists of six subscales, including self-kindness, common humanity, mindfulness, self-judgment, isolation, and over-identification. A total scale score can be used to measure an individual’s general compassion toward oneself (Neff, 2016), which was used for the purpose of this study. Internal consistency reliability estimates ranges from .75 to .81 (Neff, 2003a). Self-compassion is significantly correlated with positive mental health outcomes such as less depression ($r = −.51$) and anxiety ($r = −.65$) and greater life satisfaction ($r = .45$). Convergent validity for the SCS includes a significant negative correlation with self-criticism ($−.65$) and a significant positive correlation with a sense of social connectedness ($+.41$; Neff, 2003a).

The factor structure of the scale has been replicated in the Chinese population (Neff, 2016). Chen, Yan, and Zhou (2011) investigated the reliability and validity of a Chinese version of the SCS within a Chinese undergraduate student sample, confirming the six-factor structural model and its psychometric quality with Cronbach’s $\alpha$ coefficients of .84 and test-retest reliability of .89. In the current study, the Cronbach’s $\alpha$ for self-compassion scale was .86.

RESULTS

Preliminary Analysis

The data were examined for data accuracy, normality of distribution, linearity, homoscedasticity, univariate and multivariate outliers, and missing values. Cases that contain more than 5% missing values were deleted. The remaining missing values were replaced using expectation-maximization (EM) algorithm; EM algorithm is a technique that finds maximum likelihood estimates in parametric models for incomplete data (Dempster, Laird, & Rubin, 1977). Two univariate and multivariate outliers were identified and deleted. Preliminary data screening did not suggest problems with assumptions of normality and linearity. In addition, intercorrelations between age, gender, ABC, and OGO were examined. Table 1 presents the means, standard deviations, and intercorrelations among all of the variables.
Table 1: Intercorrelations Among Affirmation, Belong, and Commitment (ABC), Other Group Orientation (OGO), Self-Compasion, Acculturative Stress, Age, and Gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ABC</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. OGO</td>
<td>.26**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Self-compassion</td>
<td>.09</td>
<td>.09</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>4. Acculturative stress</td>
<td>.20**</td>
<td>−.25**</td>
<td>−.27**</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Gender</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>A</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>−.14*</td>
<td>−.12*</td>
<td>.08</td>
<td>.00</td>
<td>−.11</td>
<td>.08</td>
<td>.09</td>
<td>[.85, .90]</td>
</tr>
<tr>
<td>2.</td>
<td>−.04</td>
<td>.02</td>
<td>.09</td>
<td>.49</td>
<td>.72</td>
<td>.24</td>
<td>.57</td>
<td>[.79, .85]</td>
</tr>
<tr>
<td>3.</td>
<td>3.37</td>
<td>3.87</td>
<td>3.21</td>
<td>1.86</td>
<td>−.49</td>
<td>−.18</td>
<td>.24</td>
<td>[.83, .88]</td>
</tr>
<tr>
<td>4.</td>
<td>0.92</td>
<td>0.75</td>
<td>.49</td>
<td>.72</td>
<td>.34</td>
<td>−.92</td>
<td>.39</td>
<td>[.97, .98]</td>
</tr>
</tbody>
</table>

Note: CI = Confidence intervals for alpha. *p < .05; **p < .01

Mediation Effect of OGO

A mediation analysis was performed through M-plus using the Baron and Kenny (1986) causal-steps approach; in addition, a bootstrapped confidence interval for the indirect effect was obtained using procedures described by Preacher and Hayes (2008). The initial causal variable was ABC; the outcome variable was acculturative stress; and the proposed mediating variable was OGO. In addition, we controlled age in the following analyses. All coefficients reported are unstandardized, unless otherwise noted; α = .05 two-tailed is the criterion for statistical significance. The total effect of ABC on acculturative stress was significant, $c = .14, t(277) = 2.80, p < .01$; ABC was significantly predictive of the hypothesized mediating variable, OGO; $a = .29, t(268) = 5.93, p < .001$. When controlling for ABC, OGO was significantly predictive of acculturative stress, $b = −.34, t(267) = −5.85, p < .001$. The estimated direct effect of ABC on acculturative stress, controlling for OGO, was $c' = .24, t(267) = 4.78, p < .001$ (see Figure 1). Acculturative stress was predicted well from ABC and OGO, with adjusted $R^2 = .14$ and $F(4, 267) = 11.71, p < .001$. The indirect effect, $ab$, was −.10. This was judged to be
statistically significant using the Sobel (1982) test, \( z = -4.16, p < .001 \). Using the SPSS script for the indirect procedure (Preacher & Hayes, 2008), bootstrapping was performed; 5,000 samples were requested; a bias-corrected and accelerated confidence interval (CI) was created for \( ab \). For this 95% CI, the lower limit was \(-.16\) and the upper limit was \(-.06\).

**Figure 1: The Mediation Effects OGO on Relationship Between ABC and Acculturative Stress after Controlling the Effects of Gender and Age**

\[
\begin{align*}
a &= .29^{***} \\
b &= -.34^{***} \\
c &= .14^{**} \\
c' &= .24^{***}
\end{align*}
\]

*Note.** **\(p < .01\), ***\(p < .001\)

In the current study, both the \( a \) and \( b \) coefficients were statistically significant, the Sobel test for the \( ab \) product was significant, and the bootstrapped CI for \( ab \) did not include zero. Therefore, the indirect effect of ABC on acculturative stress through OGO was statistically significant. The direct path from ABC to acculturative stress (\( c' \)) was also statistically significant; therefore, the effect of ABC on acculturative stress was partially mediated by OGO.

**Moderation Effect of Self-Compassion**

A regression analysis was performed to assess whether self-compassion moderated the relation between ABC and acculturative stress among Asian international students. The results indicated that overall regression was statistically significant, \( R = .36, R^2 = .13 \), adjusted \( R^2 = .11, F(4, 251) = 9.08, p < .001 \). The interaction between ABC and self-compassion was not
significant ($B_{ABCxSC} = -0.03, 95\% \text{ CI } [-0.09, 0.06], \beta_{ABCxSC} = -0.13, t[252] = -0.29, p > .05$; see Figure 2).

**Figure 2: Moderation of the ABC and Acculturative Stress Relationship by Self-Compassion**

Note. **$p < .01$; ***$p < .001$**

At the same time, Both ABC ($B_{ABC} = 0.16, 95\% \text{ CI } [0.07, 0.26], \beta_{ABC} = 0.20, t[252] = 3.37, p < .01$) and self-compassion ($B_{SC} = -0.39, 95\% \text{ CI } [-0.58, -0.25], \beta_{SC} = -0.27, t[252] = -4.42, p < .001$) were found to be significantly predictive of acculturative stress. The proportion of variance in the acculturative stress uniquely explained by ABC and self-compassion were as follows: $sr^2 = 0.04$ for ABC, $sr^2 = 0.08$ for self-compassion; thus, ABC and self-compassion accounted for a substantial amount of variance in the Asian international students’ acculturative stress.

**DISCUSSION AND CONCLUSIONS**

The current study explored whether Asian international students’ adherence to one’s ethnic group, namely ethnic identity (ABC), would be significantly associated with the amount of acculturative stress students experienced during their stay in the US. In addition, the study was conducted to identify through what mechanism and under what condition this relationship would occur.
The results indicated that if Asian international students identify more strongly with their own ethnic culture, they are more likely to experience acculturative stress in the US. One might be quick to interpret such results to suggest that adherence to one’s culture of origin is problematic in adjusting to another culture and, thus, Asian international students should reduce their commitment to their own cultures. However, without a thorough understanding of why ethnic identity associates negatively with acculturative stress, that interpretation could lead to incorrect conclusions and clinical implications. While assessing these results, it is also imperative to recall several positive effects associated with ethnic identity and international students’ psychological well-being (R. M. Lee & Yoo, 2004) and college adjustment (Klasner & Pistole, 2003) in the US.

Therefore, another goal of the present study was to further explore whether Asian international students’ openness to other ethnic groups would mediate the relation between ethnic identity and acculturative stress. The results indicated that other group orientation indeed mediated the relation between Asian international students’ ethnic identity and their level of acculturative stress. However, this finding is contrary to our hypothesis, which assumed that higher ethnic identity would be associated with reduced openness to other ethnic groups and increased acculturative stress; in fact, the evidenced mediation effect is the opposite.

The results indicated that stronger adherence to one’s own group leads to more openness to other ethnic groups, and in turn, reduced acculturative stress. Such results confirm the importance of adherence to one’s own group because of its association with not only better psychological well-being (R. M. Lee & Yoo, 2004) and college adjustment (Klasner & Pistole, 2003), but also with more openness to social connection with members outside one’s own ethnic group, which is consistent with Glass and Westmont’s (2014) finding that belongingness increased cross-cultural interaction for international students and domestic students. Additionally, results suggest that there are other mediators that may explain why higher ethnic identity is associated with greater acculturative stress for Asian international students. Future research would benefit from further examination of other sociocultural factors that might contribute to increased acculturative stress, including an exploration of how individuals are impacted by environmental factors (e.g., perceived campus climate towards Asian international students). The direction of exploring environmental factors may also respond to the criticism from J. J. Lee and Rice (2007) in terms of putting responsibility of cultural adjustments heavily on international students rather than host institutions.
For example, Ward and Chang (1997) suggest that cultural fit—i.e., the fit between a migrant's values, personality, and behavior and those of the host culture—is an important factor in the acculturation process. It may be that for those engaging in behaviors that are culturally congruent with their culture of origin (e.g., greeting others, making friends, solving interpersonal conflicts, etc.) these behaviors may receive less validation in the US. This may be particularly true of Asian international students, who have been found to report greater cultural distance between the US and their culture of origin (Sam & Eide, 1991). While these behaviors are entirely appropriately within their own cultural context, they could be misunderstood and misinterpreted within the cultural context of the US, elevating acculturative stress for Asian international students. In addition to misunderstandings, students may also experience more isolation and lower confidence as a consequence of constant invalidation or uncertainty inherent in navigating new social environments. For example, an Asian international student who strongly adheres to collectivistic cultural values may sacrifice his/her own needs to accommodate others’ needs. In a collectivistically oriented society, such behaviors would be appreciated. Moreover, others would also try to sacrifice their needs to accommodate this student’s needs. Consequently, the student’s needs are met even if he/she defers his/her own needs to others’ needs. However, within their American host culture, such behaviors could be interpreted as lack of assertiveness; such a student could be exploited and criticized as a “people pleaser” and therefore experience greater acculturative stress.

Finally, with the aim of understanding factors that may allow Asian international students to benefit from a strong ethnic identity while reducing any detrimental influence that may lead to increased acculturative stress, the current study examined whether self-compassion is associated with acculturative stress and whether it moderates the relation between ethnic identity and acculturative stress. As predicted, the results indicated that self-compassion was negatively associated with acculturative stress. That is, if Asian international students have a greater ability to apply kindness to themselves, they are less likely to experience acculturative stress in the US. When Asian international students transition from their home country to the US, whose mainstream culture is significantly different, it is natural that they are likely to experience multiple challenges in various areas of their lives (e.g., academic, interpersonal, basic living habits) due to cultural differences (Y. W. Wang, Lin, Pang, & Shen, 2007). Thus, they may experience less acculturative stress if they do not consider those challenges as personal failures and criticize themselves for such difficulties.
As Neff et al. (2007) noted, individuals with higher self-compassion tend not to be harshly self-critical and can acknowledge areas of growth that need changing. Therefore, higher levels of self-compassion appear to serve as a protective factor for Asian international students to cope with their acculturative stress. Recent scholarship has demonstrated how self-compassion is teachable and can be used as an intervention (i.e., through mindfulness instruction; Neely et. al., 2009; Neff & Germer, 2013; Smeets, Neff, Alberts, & Peters, 2014) and programming can be further utilized by colleges and universities to aid incoming international students in their adjustment.

However, our results also indicated that self-compassion is not able to alleviate the negative association between ethnic identity and acculturative stress. That is, an Asian international student who strongly affiliates with his/her own ethnic group would likely experience acculturative stress despite whether he/she has more compassion toward oneself. This result seems to suggest Asian international students’ personal efforts towards oneself (e.g., self-compassion) may not be able to change the negative association between ethnic identity and acculturative stress. It might imply that the changes need to come from outside of personal efforts, or from personal efforts directed toward others or their environment rather than oneself, in order to alter this association. For example, if students’ culturally congruent behaviors are indeed a mechanism contributing to the positive relation between ethnic identity and acculturative stress, possible moderators that could alleviate the relation between ethnic identity and acculturative stress could include an accurate understanding, validation, and acceptance of Asian international students’ culture from their surroundings or Asian international students’ efforts to explain their culture to others. Another possible moderator may relate to implicit and explicit discriminations that create a hostile campus climate towards Asian international students; if such hypothesis is confirmed in future research, it may imply the involvement of institutional efforts in mitigating the relation between ethnic identity and acculturative stress.

**IMPLICATIONS**

Several limitations should be taken into consideration in interpreting the present study's findings. First, in contextualizing the findings of the present study, it must be noted that our sample of Asian international students reported experiencing relatively low levels of acculturative stress ($M = 1.86$, $SD = 0.72$). Prior studies have found Asian international students to report levels of acculturative stress ranging from 2.05–3.22 (Constantine et al., 2004;
Wei et al., 2007; Yeh & Inose, 2003). Thus, in understanding the relation between ethnic identity, self-compassion, and acculturative stress, it is possible that different findings may be drawn from a sample of participants reporting higher levels of acculturative stress. Compared with other studies’ samples, it may be that the students represented in our sample are more likely to value an integration approach to acculturation, in which individuals attempt to fit in and fully participate in host culture, while also maintaining their heritage culture (Berry, 1997). Research suggests that this acculturation strategy is associated with the least acculturative stress and best psychosocial outcomes (Berry, 2007). This may explain the associations found in our study in which stronger adherence to one’s own group was associated with more openness to other ethnic groups and reduced acculturative stress. Future research would benefit from examining the influence of acculturation strategies.

Second, the present sample included primarily first-year undergraduate students and did not include graduate students, who make up a considerable portion of the Asian international student population. It is possible that the low levels of reported acculturative stress in our sample may be due to the over-representation of first-year students in our sample. The inclusion of a higher proportion of students who are upperclassmen or graduate students may include a wider range of acculturative experiences. Thus, caution should be taken in generalizing these findings to upperclassmen and/or graduate students and future research is needed to examine whether results are replicable in these populations. Third, the present study focuses on Asian international students, broadly. Given the diversity of Asian cultures, there may be cultural variation in students’ acculturation experiences. Thus, future research should focus on gathering larger samples that allow for a more in-depth analysis of acculturative stress based on nationality. Fourth, given all the surveys were administered in English and a considerable number of participants reported English as their second language, participants’ English proficiency may affect the results. This is also especially important considering the reliability and validity of the Self-Compassion Scale found by Chen et. al. (2011) was through the use of a Chinese-translated version. Therefore, future research should examine the potential influence of participants’ English proficiency on study variables.

Despite the limitations, our findings offer important insights into factors shaping the experience and adjustment of Asian international students in the US. As American colleges and universities continue to increase international
student enrollment, continued scholarship is needed to aid university faculty and staff in supporting the growing number of foreign students.

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