Advisory Working Alliance, Perceived English Proficiency, and Acculturative Stress

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The aim of this study was to examine the moderators of (a) general or cross-cultural advisory working alliances and (b) perceived English proficiency on the association between acculturative stress and psychological distress. A total of 143 East Asian international students completed an online survey. Results from a hierarchical regression indicated significant three-way interactions of (a) General Advisory Working Alliances × Perceived English Proficiency × Acculturative Stress on Psychological Distress and (b) Cross-Cultural Advisory Working Alliances × Perceived English Proficiency × Acculturative Stress on Psychological Distress. Specifically, the present results indicated that acculturative stress was significantly associated with psychological distress only when students perceived lower English proficiency and had a stronger general or cross-cultural advisory working alliance. However, acculturative stress was not significantly related to psychological distress when these students perceived lower English proficiency and had a weaker advisory working alliance (i.e., general or cross-cultural). In addition, acculturative stress was also not significantly related to psychological distress when these students perceived higher English proficiency and had a stronger or weaker advisory working alliance (i.e., general or cross-cultural).

Keywords: general or cross-cultural advisory working alliance, perceived English proficiency, East Asian international students, acculturative stress, psychological distress

Recently, Zhang and Goodson (2011) reviewed 64 international student adjustment studies conducted in the past 20 years. They suggested that future studies could benefit from going beyond direct associations to examine mediation and/or moderation effects on international students’ adjustment in order to advance researchers’ knowledge on this population. For example, to know for whom or under what situation acculturative stress would or would not be associated with psychological distress could allow researchers to tailor suitable resources to help international students adjust to their life in the United States. This type of study is especially important to East Asian international students for the following reasons. First, East Asian international students are the largest group of international students studying on U.S. college campuses (Institute of International Education, 2011). However, acculturative stress often makes them susceptible to negative psychological outcomes (Constantine, Okazaki, & Utsey, 2004; Wei et al., 2007; Wei, Liao, Heppner, Chao, & Ku, 2012). Second, Asian culture shared by East Asian international students is often very different from American culture (Sodowsky & Plake, 1992). Berry (1997) indicated that it is important to investigate what happens to individuals who have developed their values in their home culture when they attempt to reestablish their lives in a different host culture. Third, English is most likely East Asian international students’ second language, which may add to their challenge of adjusting to life in the United States (Church, 1982).

Berry (1997) proposed his theoretical framework on acculturation to reflect the complexity of the acculturation process for those who temporarily or permanently reestablish their lives in the United States. He indicated that individuals may maintain their cultural values while adjusting to a new society. Moreover, several factors (e.g., social support) could moderate the association between acculturative experiences (e.g., acculturative stress) and psychological outcomes. On the basis of Berry’s theoretical framework, the present study was conducted to examine the moderators (i.e., general advisory working alliance, cross-cultural advisory working alliance [see details below], and perceived English proficiency) for the association between acculturative stress and psychological distress among East Asian international students.
General Advisory Working Alliance

In the literature on the advisor–advisee relationship, Schlosser and Gelso (2001) proposed the concept of advisory working alliances (later referred to as general advisory working alliances) to examine the advisor–advisee relationship. This concept includes three components: (a) rapport (i.e., advisor’s support and encouragement for their advisee), (b) apprenticeship (i.e., the advisor’s facilitation of the advisee’s professional development), and (c) identification-individuation (i.e., advisee’s wanting [or not wanting] to be like her or his advisor and seeing her or his advisor as a role model). Overall, an advisory working alliance refers to the “portion of the [advising] relationship that reflects the [interpersonal] connection made as a result of collaborative work toward common goals” (Schlosser & Gelso, 2001, p. 158).

Thus far, the existing literature on the advisor–advisee relationship is limited only to counseling psychology graduate students with one exception of Rice et al.’s (2009) quantitative and qualitative study. First, Rice et al. (2009) provided support for the three components of the advisory working alliance proposed by Schlosser and Gelso (2001) in a sample of international students (see details in the Method section). Second, in the qualitative part of their study, Rice et al. (2009) indicated that the relationship with advisors is one of the most relevant factors for international students to succeed in their academic studies in the United States. The following positive and negative advising experiences from these students’ reports can illustrate the impact that the advising relationship can have on international students’ success and psychological adjustment.

Positive experiences: She [advisor] gives me credit in front of other people...she always introduces me to a lot of good sources that can help my work...When I had a personal problem, she listened to me...I can see how significant the role of a good advisor can be for the success of international graduate students. (Rice et al., 2009, p. 386)

Negative experiences: I only see him [advisor] when there is a crisis and I know the meeting will make me feel that I’m unproductive and that I am wasting his time. I never get positive advice. (Rice et al., 2009, p. 386)

The above examples demonstrate that a general advisory working alliance plays a significant role in international students’ adjustment. These qualitative data also reflect the components defined by Schlosser and Gelso (2001). For example, Rice et al. (2009) indicated that 66 out of 176 international students reported concerns about their relationship with their advisors (e.g., the rapport component); 94 out of 176 students reported concerns about poor advisement from their advisor such as inaccessibility, lack of guidance, and poor feedback (i.e., the apprenticeship component); and 12 out of 176 students reported concerns about the mismatch on research interests or working styles (e.g., the identification and individuation component). Clearly, a general advisory working alliance is important for international students’ adjustment in the United States.

Cross-Cultural Advisory Working Alliance

The general advisory working alliance, although important, does not fully capture all of specific types of graduate advising relationships (Gelso & Schlosser, 2001). Schlosser, Knox, Moskovitz, and Hill (2003) indicated that future researchers need to examine specific types of advisory working alliances (e.g., cross-cultural advisory relationships) and the effects of advising relationships on relevant outcomes (e.g., psychological distress) other than research competence. Recently, Schlosser, Lyons, Talleyrand, Kim, and Johnson (2011a, 2011b) explicitly proposed a call to expand the literature on graduate advising relationships by considering multicultural or cross-cultural factors. Therefore, in addition to the above general advisory working alliance proposed by Schlosser and Gelso (2001), the cross-cultural advisory working alliance would also be important to understand advisor–advisee relationships among East Asian international students. A cross-cultural advisory working alliance can be viewed as the relationship in which advisors actively provide culturally appropriate strategies that strengthen connections and facilitate international advisees’ personal adjustment and professional growth. For example, advisors can serve as cultural brokers to help these students learn cultural expectations and connect them with resources for their cross-cultural adjustment.

Furthermore, advisors can behave in culturally sensitive ways with their East Asian international students by giving them the same respect and opportunities as they do to their other advisees, believing in their potential (even if they have difficulty with English) or focusing on their achievements rather than their English proficiency. In a qualitative study, Lee and Rice (2007) indicated that some international students changed faculty advisors because of interpersonal difficulties associated with cultural intolerance or negative comments on students’ home country or sexual harassment. International students’ lack of knowledge about university resources may make them more vulnerable in such instances. Inman et al. (2011) found that advisors’ lack of multicultural sensitivity is one reason why advisees do not want to self-disclose to their advisors. Thus, in this study, we examined not only the general advisory working alliance but also the cross-cultural advisory working alliance to see whether both would moderate the association between acculturative stress and psychological distress.

General or Cross-Cultural Advisory Working Alliance, Perceived English Proficiency, and Acculturative Stress

Berry (1997) indicated that if researchers do not pay attention to the cultural and psychological characteristics that individuals bring to the process, they cannot understand these individuals’ acculturation and adjustment experiences. East Asian culture (East Asian in this study refers to Chinese, Taiwanese, and South Korean cultures) is highly impacted by Confucian philosophy (K. H. Kim, 2009), which may give the advisor and advisee relationship a special cultural meaning. One Asian saying, “one day [as] a teacher, life-long father,” reflects teachers’ love for their students and the importance of the teacher–student relationship. “Teachers’ care for their students should be like parents’ care for their children” (Wang, 2010, p. 763). Because East Asian international students are away from home, advisors might be viewed as parental figures or authority figures who help them adjust to life in the United States. Their appreciation for their advisor could be similar to their appreciation for their parents. On the basis of Asian
cultural values on family recognition or appreciation through achievement (B. S. K. Kim, Li, & Ng, 2005), one way to return their advisor's gratitude may be to excel academically to make their advisor proud.

Combining the literatures on Schlosser and Gelso's (2001) advisory working alliance and Berry's (1997) theoretical framework for acculturation, we proposed that the moderation effects of general or cross-cultural advisory working alliances on the association between acculturative stress and psychological distress might depend on self-perceived English proficiency (later referred to as perceived English proficiency). As we described earlier, English is most likely East Asian international students' second language, and it may become an issue to face while adjusting to life in the United States (Sodowsky & Plake, 1992). According to Church's (1982) meta-analysis of international student research, English language skills proficiency was related to their adjustment. In a qualitative study, self-assessment or self-confidence in English ability, rather than actual English ability, was the most prevalent concern for Taiwanese international students (Swagler & Ellis, 2003). Therefore, perceived English proficiency can be a factor for East Asian international students to successfully adjust to life in the United States.

Specifically, when East Asian students with lower English proficiency perceive a stronger general or cross-cultural advisory working alliance, they may want to appreciate their advisor's support and guidance. As we just mentioned above, according to the Asian philosophy “one day [as] a teacher, life-long father” and Asian cultural values to appreciate or honor family through achievement (e.g., B. S. K. Kim, Atkinson, & Yang, 1999), East Asian international students would want to make their advisors proud of them through their academic work. Unfortunately, these students' lower perceived proficiency in English might hinder their ability to excel academically and to thank their advisor for their support and guidance. If they do not reach their goals, they may feel that they have lost face or feel distressed because they cannot exceed their expectations to make their advisors proud. A recent study conducted by Liao (2011) provided evidence for this phenomenon. That is, when Chinese female international students have a strong expectation to honor their family with their high academic achievement, they are more likely to feel ashamed under academic stress. For this reason, higher acculturative stress might make them more vulnerable to psychological distress when they perceive a stronger general or cross-cultural advisory working alliance but lack proficiency in English. Therefore, we expected acculturative stress to be positively associated with psychological distress for those who had stronger general or cross-cultural advisory working alliances but perceived lower English proficiency.

Conversely, for those students with perceived lower proficiency in English and a weaker general or cross-cultural advisory working alliance, they might not need to worry about disappointing their advisor. As we addressed earlier, their desire to show their appreciation to their advisors is possibly similar to their desire to show their appreciation to their parents. In other words, due to a weaker general or cross-cultural advisory working alliance, these students might be less likely to feel a need to show their appreciation to their advisor or make their advisor proud of them. Liao (2011) indicated that when Chinese female international students did not expect themselves to honor their family with a strong academic record, academic stress was not associated with feeling ashamed. Moreover, when these students perceived a lower proficiency in English and a weaker general or cross-cultural advisory working alliance, they might realize that they cannot rely on their advisor, but they can rely on themselves to overcome their difficulties (e.g., acculturative stress). Literature has indicated that people in Asian culture tend to cope with difficulties by (a) reframing the meaning of difficulties, (b) accommodating to or accepting existing reality, and (c) exerting oneself to the utmost (Heppner et al., 2006; Weisz, Rothbaum, & Blackburn, 1984). In East Asian culture, people are often taught that difficulty is an opportunity for personal growth (i.e., reframing). Instead of being preoccupied with unhelpful advisors (i.e., accommodating reality), they might use their willpower to overcome their acculturative stress (i.e., exerting oneself to the utmost; Wei et al., 2007). An Asian Proverb that might help explain this phenomenon is, “Adversity teaches us life’s most valuable lessons.” These psychological or internal resources from themselves might help them to regulate the negative impact of acculturative stress on psychological distress. Therefore, we expected acculturative stress would have a close to zero association with psychological distress. However, we expected acculturative stress might have a close to zero association with psychological distress for those who perceived lower English proficiency and a weaker general or cross-cultural advisory working alliance.

Furthermore, for students with higher perceived English proficiency, we also expected that acculturative stress would have a close to zero association with psychological distress, regardless of whether their general or cross-cultural advisory working alliance was strong or weak. A possible reason is that higher perceived English proficiency and a stronger general or cross-cultural advisory working alliance might help students regulate their psychological distress and manage their acculturative stress (Church, 1982; Rice et al., 2009). Thus, a combination of higher perceived English proficiency and a stronger general or cross-cultural advisory working alliance might work together to decrease the negative impact of acculturative stress on psychological distress. Moreover, in the case in which students had weaker general or cross-cultural advisory working alliances, they might lack advisors' support and guidance to help alleviate psychological distress associated with acculturative stress. However, East Asian international students with higher perceived English proficiency might have an easier time expressing their needs or adjusting to life in the United States (Swagler & Ellis, 2003). For this reason, students with higher perceived English proficiency and a weaker general or cross-cultural advisory working alliance might not experience much psychological distress while they encounter acculturative stress.

The Present Study

In sum, we hypothesized two significant three-way interactions (i.e., General Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress; Cross-Cultural Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress) in predicting psychological distress. Specifically, we expected that acculturative stress would be positively associated with psychological distress only for those who have stronger general or cross-cultural advisory working alliances but lower perceived English proficiency. In addition, Harrell (2000) suggested examining the unique contribution of minority stress (e.g., acculturative stress) on negative outcomes over and beyond a confounding variable of general life stress. Thus, general life stress
was used as a covariate to control for its impact on psychological distress.

**Method**

**Power Analysis**

A power analysis was conducted by using G*Power 3.1.2 (Erdfelder, Faul, & Buchner, 1996) to estimate the sample size. A sample size of 395, 55, and 26 was needed for a small, medium, and large effect size, respectively. In this study, a sample size of 143 would detect a three-way interaction effect with a small to medium effect size and a power of .80.

**Participants**

Participants were 143 East Asian international graduate students from China, Taiwan, and South Korea. There were 47% males and 52% females (two did not respond to this question). The predominant countries of origin were China (69%), followed by South Korea (18%) and Taiwan (13%). Participants reported an average of 2.96 years ($SD = 2.38$) for the length of time in the United States, and their age ranged from 22 to 42 ($M = 28.03$, $SD = 4.44$). Approximately 41% majored in liberal arts and sciences; 28% in engineering; 13% in agriculture and life sciences; 11% in human sciences; 2.8% in business; 2.8% in veterinary medicine; two reported “other.”

**Instruments**

**Perceived general stress.** Perceived general stress was assessed by the Perceived Stress Scale-short form (PSS; Cohen, Kamarck, & Mermelstein, 1983). The PSS-short form is a four-item self-report measure designed to assess global perceptions of stress. A sample item is “How often have you felt difficulties were piling up so high that you could not overcome them?” Participants are asked to rate on a 5-point rating scale ranging from 0 (never) to 4 (very often). The total scores range from 0 to 16, with higher scores indicating greater perceived stress. The four items were selected from the highest correlations with the original 14-item scale (Cohen et al., 1983). The coefficient alpha for the scores on the PSS-4 was .74 for Chinese international students (Tsai, 2011) and .70 (95% CI [.62, .78]) in this study. The validity was evidenced by a positive association between perceived general stress (i.e., PSS-4) and perceived discrimination (Tsai, 2011).

**Acculturative stress.** The Acculturative Scale for International Students (Sandhu & Asrabadi, 1994) was used to measure participants’ level of acculturative stress. This scale (36 items) measures acculturative stress experienced by international students. Sample items are “I am treated differently in social situations” and “I feel rejected when others don’t appreciate my cultural values.” Each item is rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total scores can range from 36 to 180, with higher scores indicating higher levels of acculturative stress. The coefficient alpha of the scale ranged from .92 to .94 among international students (Constantine et al., 2004; Yeh & Inose, 2003) and was .94 (95% CI [.92, .95]) for this study. Validity of the scale scores was evidenced by a negative association with social connectedness among international students (Yeh & Inose, 2003) and a positive association with depressive symptoms among international students (Constantine et al., 2004).

**General advisory working alliance.** General advisory working alliance was measured by the Advisory Working Alliance Inventory-Student version (AWAI-S; Schlosser & Gelso, 2001). The AWAI-S (30 items) assesses students’ perceptions of their relationship with their advisor. It includes three subscales: Rapport (11 items), Apprenticeship (14 items), and Identification-Individuation (five items). Rice et al. (2009) conducted a study to support the three-factor structure (i.e., rapport, apprenticeship, and identification-individuation) and psychometric properties of the AWAI-S (Schlosser & Gelso, 2001) for international students. Sample items of the AWAI-S are: “I get the feeling that my advisor does not like me very much” and “My advisor introduces me to professional activities (e.g., conferences, submitting articles for journal publication).” Participants are asked to rate on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total scores can range from 30 to 150, with a higher score indicating a better advisor-advisee working relationship. A total score was used in the present study. The coefficient alphas were from .84 to .95 (Schlosser & Gelso, 2001; Schlosser & Kahn, 2007) for counseling psychology graduate students and .95 for international students (Rice et al., 2009). In this study, the coefficient alpha was .94 (95% CI [.93, .96]). Developers of this scale also demonstrated good validity by showing significant correlations with research self-efficacy and attitudes toward research among counseling psychology doctoral students (Schlosser & Gelso, 2001).

**Cross-cultural advisory working alliance.** A Cross-Cultural Advisory Working Alliance (CCAWA) scale was created for this study. A research team (i.e., two Asian female licensed psychologists, one Asian female doctoral student, and one White male undergraduate student) first reviewed the literature (i.e., advisory working alliance and qualitative studies on international students) and discussed the construct definition of cross-cultural advisory working alliance. Afterward, research team members wrote items independently, discussed them, and modified them accordingly. Several of the items were modified from the Advisory Working Alliance Inventory-Student version (Schlosser & Gelso, 2001) by adding cultural components. For example, “I do not think that my advisor believes in me” was changed to “My advisor believes in my potential even if I have difficulty with English”; “I do not feel respected by my advisor in our work together” was changed to “My advisor respects my input even though we are from different cultures.” Three graduate international students with different majors (one female in psychology and two males in statistics) were asked to review and provide feedback for the initial items. The final 21 items were developed to use for data collection.

The present data set was divided into two data sets: one for exploratory factor analyses ($n = 65$) and the other for confirmatory factor analyses ($n = 67$). The parallel analysis (Kahn, 2006) suggested retaining two factors because eigenvalues (i.e., 8.82 and 1.96) in the actual data set were higher than those (i.e., 2.17 and 1.94) in the parallel analysis. Principal axis factor analyses were conducted to explore the two- and three-factor solutions with the orthogonal (i.e., varimax) and oblique (i.e., promax) rotations of the extracted factors. The two-factor solution with an oblique rotation was the most interpretable. The following criteria were used for selecting items: (a) A factor loading is greater than .50, (b)
a cross-loading on other factors is less than .30, and (c) no more than four items from each factor for keeping this scale short for future use. Eight items (four items for each factor) were selected. A second exploratory factor analysis was conducted for these eight items; the two-factor solution accounted for 61.38% of the total variance in the items after rotation. All factor loadings were greater than .50, and no items were found to have a cross-loading exceeding .30 on the other factors. Factor 1 was labeled Adjustment to America (four items, accounting for 48.35% of the total variance after rotation). This factor refers to the fact that advisors help their advisees to adjust to life in the United States. Factor 2 was named Respect Me and See My Potential (four items, accounting for 13.03% of the total variance after rotation). This factor indicates that advisors respect their advisees and believe in their advisees’ potential (see Table 1).

Moreover, the second data set was used for confirmatory factor analyses in LISREL 8.54. Three fit indices were used to evaluate the fit of the model to the data (Hu & Bentler, 1999): the comparative fit index (CFI ≥ .95), the root-mean-square error of approximation (RMSEA ≤ .06), and the standardized root-mean-square residual (SRMR ≤ .08). The two-factor oblique model was compared with (a) the one-factor model, (b) the two-factor orthogonal model, and (c) the second-order model (see Table 2). The one-factor model is nested within the two-factor oblique model (i.e., the one-factor model sets the correlations between two factors to 1.0). The significant chi-square difference, $\chi^2(1, N = 67) = 36.71, p < .001$, indicated that the two-factor oblique model was a better fit to the data. Additionally, the two-factor oblique model and the two-factor orthogonal model are nested models (i.e., the oblique model adds one correlation between two factors to the orthogonal model). The significant chi-square difference, $\chi^2(1, N = 67) = 36.18, p < .001$, also suggested that the two-factor oblique model was a better fit to the data.

Finally, the two-factor oblique model and the second-order model were compared with each other. Because these two models are not nested models, the Akaike’s information criterion (AIC) and the expected cross-validation index (ECVI) were used to decide on a better model (i.e., the smaller value indicated a better model; Maruyama, 1998). As we can see in Table 2, for the second-order model, the three fit indices met the criteria (i.e., CFI > .95, RMSEA < .06, and SRMR < .08), but only two indices (CFI and SRMR) met the criteria for the two-factor oblique model. Furthermore, the AIC and ECVI are smaller for the second-order model than for the two-factor oblique model. The factor loadings in the second-order model ranged from .63 to .91 for the Adjustment to America factor and from .54 to .91 for the Respect Me and See My Potential factor. The high factor loadings between the second-order factor and the first-order factors (i.e., .79 and .90) in the second-order model may imply one general construct of cross-cultural advisory working alliance. Therefore, the second-order model may be a better representation of the data. The total score was used in the present study. Participants were asked to rate each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total scores range from 8 to 40, with higher scores indicating higher cross-cultural advisory working alliance. The coefficient alpha was .87 (95% CI [.84, .90])

### Table 1

*Items, Factor Loadings, Community Estimates, Item-Total Correlations, Means, and Standard Deviations for the Cross-Cultural Advisory Working Alliance*

<table>
<thead>
<tr>
<th>Scale and item</th>
<th>1</th>
<th>2</th>
<th>$h^2$</th>
<th>Item-total $r$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjustment to America</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My advisor gives me tips and suggestions on how to adjust to life in the United States.</td>
<td>.96</td>
<td>−.05</td>
<td>.87</td>
<td>.79</td>
<td>3.06</td>
<td>1.07</td>
</tr>
<tr>
<td>My advisor connects me to resources that help me adjust to life in the United States.</td>
<td>.82</td>
<td>.01</td>
<td>.68</td>
<td>.77</td>
<td>2.92</td>
<td>1.02</td>
</tr>
<tr>
<td>My advisor helps me to become familiar with American learning styles.</td>
<td>.76</td>
<td>.12</td>
<td>.70</td>
<td>.82</td>
<td>2.98</td>
<td>1.01</td>
</tr>
<tr>
<td>My advisor explains how American cultural expectations may differ from my own.</td>
<td>.74</td>
<td>−.03</td>
<td>.53</td>
<td>.71</td>
<td>3.03</td>
<td>1.00</td>
</tr>
</tbody>
</table>

| **Respect Me and See My Potential**                                            |       |       |       |                |    |      |
| My advisor gives me the same respect and opportunities as he/she does to his/her other advisee(s). | −.06  | .86   | .68   | .68            | 3.77 | 0.88 |
| My advisor believes in my potential even if I have difficulty with English.   | −.02  | .79   | .61   | .69            | 3.80 | 0.93 |
| My advisor respects my input even though we are from different cultures.     | .11   | .69   | .59   | .71            | 3.66 | 0.94 |
| My advisor is patient with me when he/she listens to my English.              | .02   | .51   | .26   | .52            | 4.09 | 0.77 |

### Table 2

*Goodness-of-Fit Indicators for the Competing Models of the Eight-Item CCAWA*

<table>
<thead>
<tr>
<th>Model</th>
<th>$df$</th>
<th>$\chi^2$</th>
<th>CFI</th>
<th>RMSEA [CI]</th>
<th>SRMR</th>
<th>AIC</th>
<th>ECVI [CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. One first-order</td>
<td>20</td>
<td>70.48</td>
<td>.88</td>
<td>.17 [.12, .23]</td>
<td>.10</td>
<td>90.02</td>
<td>1.39 [1.10, 1.81]</td>
</tr>
<tr>
<td>B. Two-factor orthogonal</td>
<td>20</td>
<td>69.95</td>
<td>.89</td>
<td>.14 [.09, .20]</td>
<td>.29</td>
<td>79.25</td>
<td>1.20 [0.95, 1.57]</td>
</tr>
<tr>
<td>C. One second-order</td>
<td>18</td>
<td>33.77</td>
<td>.96</td>
<td>.00 [.00, .07]</td>
<td>.07</td>
<td>48.32</td>
<td>0.82 [0.82, 0.90]</td>
</tr>
<tr>
<td>D. Two-factor oblique</td>
<td>19</td>
<td>33.77</td>
<td>.97</td>
<td>.09 [.00, .15]</td>
<td>.07</td>
<td>63.62</td>
<td>0.96 [0.80, 1.25]</td>
</tr>
</tbody>
</table>

Note. CCAWA = Cross-Cultural Advisory Working Alliance; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = 90% confidence intervals for RMSEA and ECVI; SRMR = standardized root-mean-square residual; AIC = Akaike’s information criterion; ECVI = expected cross-validation index.
in this study. The concurrent validity was supported by a negative association with acculturative stress, and the criterion validity was supported by a positive association with advisory working alliance (see Table 3).

**Perceived English proficiency.** Perceived English proficiency (five items) was measured by the Perceived English Proficiency scale (PEP; Wei et al., 2012). The PEP assesses participants’ perception of English proficiency in listening, speaking, reading, writing, and overall English ability. A sample item is: “How good are you at writing a paper in English?” Participants were asked to rate on a 5-point scale ranging from 1 (very poor) to 5 (very good). The total scores can range from 5 to 25, with higher scores indicating a higher level of perceived English proficiency. Coefficient alpha was .89 for Chinese international students (Wei et al., 2012) and .87 (95% CI [.84, .90]) in this study. Validity evidence was provided by a negative association with acculturative stress among Chinese international students (Wei et al., 2012).

**Psychological distress.** Psychological distress was measured by the Psychological Distress subscale (five items) from the Outcome Questionnaire 10.2 (Lambert, Finch, Okiishi, & Burlingame, 2005). Sample items are “I feel blue” or “I feel fearful.” Participants were asked to rate on a 5-point scale ranging from 0 (never) to 4 (almost always). Total scores range from 0 to 20, with higher scores indicating greater psychological distress. Coefficient alpha was .81 among Asian Americans (Ku, 2010) and .79 (95% CI [.73, .84]) in this study. Validity was supported by a positive association with general stress among Asian Americans (Ku, 2010).

**Procedure**

A list of East Asian international graduate students from China, Taiwan, and Korea (N = 775) was obtained from the registrar’s office at a large state university in the midwest. An e-mail was sent to invite these students to participate in this online study related to their advising experiences with their graduate advisors. Two follow-up reminder e-mails were sent. After completing the survey, participants were welcome to join a drawing to win a $25 gift card. A total of 165 participants responded to the online survey. Two checking items (i.e., “One year only has 7 months” and “One week has 7 days”) were designed to ensure the accuracy of the data. A total of 22 participants were removed from the data analysis due to inaccurate responses to both of the checking items. Therefore, a total of 143 participants remained for data analysis in this study with a response rate of 18% (i.e., 143 out of 775 = 18%). This response rate seems to be comparable to that reported in previous studies for an online survey among international students (e.g., 15% for Rice et al., 2009; 22% for Sills & Song, 2002).

**Results**

**Preliminary Analyses and Descriptive Statistics**

We first examined whether our data met the multivariate normality assumption for regression (see Tabachnick & Fidell, 2007, pp. 125–127, for a discussion). We conducted two separate hierarchical regressions for two three-way interaction effects. In the first regression for General Advisory Working Alliance, the skewness and kurtosis in the residual was −0.13 and 0.90, respectively. In the second regression for Cross-Cultural Advisory Working Alliance, the skewness and kurtosis in the residual was −0.53 and 1.12, respectively. These results relatively meet the multivariate normality assumption for regression (see Tabachnick & Fidell, 2007).

Next, we wanted to know whether the sample was representative of the population of East Asian international students who were invited to participate in this study (N = 775) in terms of nationality and sex. For nationality, a significant chi-square result, χ²(2, N = 143) = 13.73, p = .001, indicated that students from Taiwan (13%) and South Korea (19%) were slightly overrepresented in our sample compared with the expected proportion of students from Taiwan (6%) and South Korea (13%) in this university. However, for sex, a nonsignificant chi-square result, χ²(1, N = 143) = 3.66, p = .06, indicated that the proportions of male and female students in our sample did not vary differently from the expected proportion of male and female students who were invited to participate in this study. Overall, it seems this sample was relatively representative of the populations in this university.

Finally, we used two one-way multivariate analyses of variance to examine whether the six main variables varied by country of origin and sex. Results suggested that there were no significant differences for all six main variables among different countries of origin or between men and women. Furthermore, age was not significantly related to any of the variables. Because students’ country of origin, sex, and age were not significantly related to the dependent variable (i.e., psychological distress), none of these variables was used as covariates in subsequent analyses.

Means, standard deviations, and zero-order intercorrelations are presented in Table 3. Acculturative stress was significantly and

<table>
<thead>
<tr>
<th>Table 3</th>
<th><strong>Correlations, Means, and Standard Deviations Among the Variables</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>1</td>
</tr>
<tr>
<td>1. Perceived General Stress</td>
<td>—</td>
</tr>
<tr>
<td>2. Acculturative Stress</td>
<td>.40***</td>
</tr>
<tr>
<td>3. General Advisory Working Alliance</td>
<td>−.41***</td>
</tr>
<tr>
<td>4. Cross-Cultural Advisory Working Alliance</td>
<td>−.20*</td>
</tr>
<tr>
<td>5. Perceived English Proficiency</td>
<td>−.12</td>
</tr>
<tr>
<td>6. Psychological Distress</td>
<td>.65***</td>
</tr>
<tr>
<td>M</td>
<td>1.62</td>
</tr>
<tr>
<td>SD</td>
<td>0.57</td>
</tr>
</tbody>
</table>

*Note.* N = 132–143.

*p < .05. **p < .01. ***p < .001.
positively associated with perceived general stress and psychological distress. General advisory working alliance was significantly and positively associated with cross-cultural advisory working alliance but negatively associated with perceived general stress, acculturative stress, and psychological distress. Cross-cultural advisory working alliance was significantly and negatively associated with perceived general stress and acculturative stress but was not significantly associated with psychological distress. Perceived English proficiency was not significantly associated with any of the studied variables.

**General Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress**

We used two separate hierarchical multiple regression analyses to examine the moderation effects: one for general advisory working alliances and the other for cross-cultural advisory working alliances. Because we used two regression analyses, a $p$-value of .025 (i.e., $0.025 = 0.025$) was used for the significant level. For general advisory working alliances, in Steps 1–3, one covariate variable (i.e., perceived general stress), one predictor variable (i.e., acculturative stress), and two moderators (i.e., general advisory working alliance and perceived English proficiency) were standardized and entered, respectively. In Step 4, we entered all possible combinations of two-way interactions. Finally, in Step 5, we entered the three-way interaction (i.e., General Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress) to test the three-way interaction hypothesis (see Table 4). The increment in $R^2$ provides the significance test for the moderation (or interaction) effect.

The results indicated that acculturative stress significantly added 4% of incremental variance in predicting psychological distress over and beyond perceived general stress (see Step 2 in Table 4). This result demonstrates that acculturative stress is different from general stress for East Asian international students. In Step 5, the result indicated that the three-way interaction effect added 5% of incremental variance in predicting psychological distress. Therefore, as expected, the three-way interaction effect of General Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress was supported by the data.

We conducted a simple effect analysis to understand the nature of the interactions (Frazier, Tix, & Barron, 2004). We also plotted the three-way interaction by using the value of one standard deviation above (i.e., high) and below (i.e., low) the mean for acculturative stress, general advisory working alliance, and perceived English proficiency. The results indicated that, for those with lower perceived English proficiency (see Panel A in Figure 1), the association between acculturative stress and psychological distress was significant when general advisory working alliance was stronger ($b = 0.34, \beta = .53, p < .001$). Conversely, this association was not significant when general advisory working alliance was weaker ($b = -0.14, \beta = -.21, p = .18$). Moreover, for those with higher perceived English proficiency, acculturative stress was also not significantly associated with psychological distress when general advisory working alliance was stronger ($b = 0.12, \beta = .18, p = .14$) and weaker ($b = 0.14, \beta = .23, p = .08$). The two slopes were almost parallel to each other (see Panel B, Figure 1).

**Cross-Cultural Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress**

Next, we used the same procedure to examine the three-way interaction for cross-cultural advisory working alliance. As shown in Table 5, in Step 5, the result indicated that the three-way interaction effect added 3% of incremental variance in predicting psychological distress. As we expected, the three-way interaction effect of Cross-Cultural Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress was supported by the data.

Similarly, we conducted a simple effect analysis. The pattern of results is identical to that found for general advisory working alliance. That is, for those with lower perceived English proficiency (see Panel A in Figure 2), the association between acculturative stress and psychological distress was significant when cross-cultural advisory working alliance was stronger ($b = 0.29,$

Table 4

| A Three-Way Interaction of General Advisory Working Alliance × Perceived English Proficiency × Acculturative Stress on Psychological Distress |
|---|---|---|---|---|
| **Step** | **B** | **SE B** | **β** | **$\Delta R^2$** | **$\Delta F$** |
| Step 1 (covariate) | | | | .42 | 97.47*** |
| Perceived General Stress | 0.41 | .04 | .65*** | | |
| Step 2 (predictor) | | | | .04 | 9.07** |
| Acculturative Stress (AS) | 0.14 | .05 | .21** | | |
| Step 3 (moderators) | | | | .01 | 1.22 |
| General Advisory Working Alliance (GAWA) | 0.05 | .05 | .08 | | |
| Perceived English Proficiency (PEP) | 0.05 | .04 | .08 | | |
| Step 4 (two-way interactions) | | | | .02 | 1.20 |
| AS × GAWA | 0.04 | .04 | .08 | | |
| AS × PEP | 0.00 | .05 | .00 | | |
| GAWA × PEP | -0.06 | .04 | -.11 | | |
| Step 5 (three-way interaction) | | | | .05 | 12.30** |
| AS × GAWA × PEP | -0.13 | .04 | -.27** | | |

*Note. N = 136. **p < .01. ***p < .001.*
Figure 1. The interaction effects of general advisory working alliance and acculturative stress on psychological distress for those with lower (Panel A) and higher (Panel B) levels of perceived English proficiency. H = higher; GAWA = general advisory working alliance; L = lower. *** p < .001.

In contrast, this association was not significant when cross-cultural advisory working alliance was weaker (b = -0.15, ß = -0.24, p = .19). Furthermore, for those with higher perceived English proficiency, acculturative stress was not significantly associated with psychological distress when cross-cultural advisory working alliance was stronger (b = 0.17, ß = .26, p = .030) and weaker (b = 0.17, ß = .27, p = .052). As we can see in Panel B, Figure 2, the two slopes were parallel to each other.1

Discussion

Overall, this study was conducted to examine under what situations (i.e., having a stronger vs. weaker general or cross-cultural advisory working alliance) and for whom (i.e., those with higher vs. lower perceived English proficiency) acculturative stress would have or would not have a significant positive association with psychological distress. As expected, the results suggested that when students had a stronger general or cross-cultural advisory working alliance but perceived a lower proficiency in English, acculturative stress was significantly and positively associated with psychological distress. This result is consistent with Liao’s (2011) findings. As we addressed earlier, East Asian students’ desire to honor their advisor through academic achievement may be similar to their desire to honor their parents by excelling academically. For this reason, their psychological distress is likely related to their desire to make their advisor proud while still lacking English proficiency to reach their goal (i.e., excelling academically to make their advisor proud).

Conversely, acculturative stress was not significantly associated with psychological distress for the other three conditions. The first condition is when these students perceived lower English proficiency and had a weaker general or cross-cultural advisory working alliance. Perhaps these students realize that their advisor will not guide or support them to regulate their distressed feelings in the face of acculturative stress. Therefore, they may rely on themselves and use their willpower to overcome their difficulties (Wei et al., 2007). Logically, one may think that those with low English proficiency and a weak advisory working alliance (general or cross-cultural) would be most at risk for poor psychosocial outcomes. However, the present results do not reflect this logic. It is possible that those who participated in this study may be those who are self-reliant, view their difficulties in a positive light, accept the reality, and maintain a high level of resilience in the face of their acculturative stress (Swagler & Ellis, 2003; Weisz et al., 1984).

The second condition that yields a nonsignificant association between acculturative stress and psychological distress is when these students perceived higher English proficiency and had a stronger general or cross-cultural advisory working alliance. Intuitively, a combination of higher perceived English proficiency and a stronger general or cross-cultural advisory working alliance might be resources to help East Asian international students regulate their psychological distress in the face of acculturative stress. Lastly, the third condition is when these students perceived higher English proficiency and a weaker general or cross-cultural advisory working alliance. Perhaps students who have a weaker advisory working alliance might not benefit from advisors’ support and guidance to alleviate psychological distress associated with acculturative stress. Instead, their higher perceived English proficiency might help them to adjust to their life in the United States, and thus they may not experience higher distress when they encounter acculturative stress. On the whole, the results found in the present study respond to a call from Zhang and Goodson (2011) to examine the moderators for international student adjustment after their review of relevant studies from the past 20 years.

Moreover, the present study adds empirical evidence to support Berry’s (1997) theoretical framework on acculturation. Berry indicated that researchers need to pay attention to “what happens to individuals who have developed in one cultural context when they attempt to re-establish their lives in another one” (p. 5). Generally, individuals act in ways that correspond to cultural influences and expectations (Berry, Poortinga, Segall, & Dasen, 1992). In Asian culture, the advisor and advisee relationship has a special meaning.

1 We further examined whether the three-way interaction for cross-cultural advisory working alliance (CCAWA) was still significant when the main effect of the general advisory working alliance was included in the model. The results indicated that the three-way interaction for CCAWA was still significant (p = .006) and accounted for an additional 3% of variance in predicting psychological distress. Moreover, the patterns of the simple effects were similar when general advisory working alliance was in the model or was not in the model. Therefore, the results suggested the unique contribution of the three-way interaction for cross-cultural advisory working alliance over and above general advisory working alliance.
The role of an advisor may be like the role of a parent. On the basis of Asian cultural values, when their advisors treat them well, advisees may want to honor their advisors by excelling academically. Furthermore, our results advance Berry’s argument to indicate that both moderation effects of general and cross-cultural advisory working alliances on the association between acculturative stress and psychological distress might depend on East Asian international students’ levels of perceived English proficiency.

As we addressed earlier, Schlosser et al. (2011a, 2011b) explicitly addressed multicultural or cross-cultural factors in graduate advising relationships. They assume “that racial and cultural socialization experiences influence advisor-advisee interactions” (Schlosser et al., 2011a, p. 6). They addressed some reasons on why culture matters in graduate advising relationships. For example, because culture informs interpersonal interactions (Helms & Cook, 1999), cultural considerations are vital to the advisor-advisee relationship. As we know, more students from diverse backgrounds are currently in most graduate training programs. Therefore, faculty members need to know how to effectively train these students and to be cross-culturally competent faculty members or advisors (Schlosser et al., 2011b).

Moreover, our study contributes to this emerging research area in several important ways. First, in addition to the AWAI (Schlosser & Gelso, 2001), this study adds a new scale to assess the cross-cultural advisory working alliance from an East Asian international student sample. Both perspectives of the general and cross-cultural advisory working alliance seem to play an equally important moderator role for East Asian international students. Therefore, advisors can help East Asian international students not only by providing support and facilitating their professional development (i.e., general advisory working alliances) but also by giving them suggestions on how to adjust to a new culture, explaining cultural differences to them, respecting them, and believing in their potential (i.e., cross-cultural advisory working alliances). Second, Schlosser, Talleyrand, Lyons, Kim, and Johnson (2011) proposed that researchers should take racial and cultural socialization (e.g., cultural mistrust) into account when studying advising relationships. In Asian culture, the fact that the role of advisor may be analogous to the role of a parental figure is culturally significant. This cultural socialization teaches East Asian inter-
national students that one way to show their appreciation for their advisors’ support and guidance may be to perform well academically to make their advisors proud.

Third, Schlosser and colleagues (2003, 2011a) encouraged researchers to advance the literature by examining the effects of the advising relationship on other relevant outcomes beyond research competence. As we can see in Table 3, general or cross-cultural advisory working alliances are related to less perceived general stress, lower acculturative stress, and lower psychological distress. These results may advance the literature to understand the roles of general or cross-cultural advising relationships on psychological related outcomes beyond research competence outcomes. However, the direct associations between general or cross-cultural advisory working alliances and perceived English proficiency are close to zero. These results may imply that more or less perceived English proficiency does not seem to be a factor related to the general or cross-cultural advisory working alliance. However, how general or cross-cultural advisory working alliances change the strength of the association between acculturative stress and psychological distress would depend on levels of perceived English proficiency.

**Limitations, Future Research Directions, and Implications**

Despite the fact that the present study may contribute to existing literatures, this study has several limitations. First, we realize that culture can be highly diverse, distinct, and specific; thus, although we advance the advisory working alliance literature by adopting a cross-cultural approach, we need to remind our readers that our findings are still limited only to East Asian international students. Our findings cannot be generalized to international students from other countries or cultures because they carry their own culture-specific expectations of advisor–advisee working alliances. Second, we encourage researchers to use other approaches and methodologies (e.g., qualitative study) to validate our findings. A qualitative study may answer some crucial questions about Asian culture, such as how East Asian international students manage English-related concerns or what a supportive (or nonsupportive) advisory working alliance means to them. In particular, these qualitative findings may confirm or disconfirm cultural interpretations of our findings (e.g., desire to make advisors proud through scholarly work, pressure to excel, reduced belief in academic success, loss of face, or self-reliance). Future studies can directly examine the associations between these concepts and variables used in this study. Third, we only collected data at one time point. Our results cannot find, much less explain, the change in East Asian international students’ perceptions of general or cross-cultural advisory working alliances over time. Future studies can be longitudinal studies that use the daily diary approach to examine how general or cross-cultural advisory working alliances help international students’ adjustment on a daily basis.

Schlosser, Talleyrand, et al. (2011) indicated that there are relatively few studies on advising relationships; not surprisingly, studies adding cultural factors into the advising relationship are also sparse. As this area of research is relatively new, more studies are definitely needed. First, the present study is limited to East Asian international students; future studies can expand to other international students and other ethnic minority graduate advisees. Additionally, future studies can also apply our methodology to other campuses to different regions (e.g., East Coast). The results from different campuses may increase the generalizability of our findings. Second, even though this study is the first attempt to measure cross-cultural advisory working alliances, it is still limited to only focusing on the advisee’s perspective. Future studies can develop an advisor version for the Cross-Cultural Advisory Working Alliance scale. Third, Schlosser, Talleyrand, et al. suggested that research studies can examine potential racial and cultural socialization processes (e.g., racial identity, acculturation and enculturation, and cultural mistrust) on the advising relationship. Fourth, the present study only focused on East Asian international students’ psychological distress. Future studies can explore other outcomes to address how general or cross-cultural advising working alliances can impact other types of outcomes (e.g., life satisfaction, happiness, intercultural competence, or satisfaction with the advisor, graduate program, department, and university).

If our results can be replicated by another study, there are some implications for working with East Asian international students. First of all, Schlosser et al. (2011b) indicated that “this is especially important if it is found that students and advisors may define ‘advising’ differently based on their racial and cultural affiliations” (p. 55). The Asian saying of “one day as a teacher, life-long father” and Asian cultural values that emphasize honoring family through academic achievement might provide important cultural messages for advisors to understand East Asian international students’ view of advisors and the advisory working alliance.

Next, English is a second language for almost all East Asian international students. Therefore, advisors, educators, or counselors need to pay attention to how perceived English proficiency might interact with advisory working alliances. In particular, these students may feel psychological distress when they want to show their appreciation by excelling academically but are not able to do so due to a lack of English proficiency. Advisors, educators, or counselors can express their cultural empathy to recognize that East Asian international students may want to express their gratitude for their advisor’s support through academic achievement, even when English is still a barrier for them. Such understanding about culture-relevant expressions of East Asian international students’ gratitude for their advisors may alleviate these students’ struggle with English that worsens their psychological distress. Advisors can introduce resources on campus (e.g., a writing center) as a way to offer advisory support that helps Asian students overcome their hardships with English.

Finally, it is important to highlight that advisors who build a good general or cross-cultural advisory working alliance can help East Asian international students adjust to life in the United States. As seen from our data, the results show that those who reported higher general or cross-cultural advisory working alliances have lower perceived stress, lower acculturative stress, and lower psychological distress (see Table 1). In addition, Greisberger (1984) reports that graduate faculty advisors realized that advising international students requires special skills and knowledge (e.g., knowing international students’ cultural and linguistic backgrounds). Thus, in graduate training programs, a diversity committee could promote awareness of cultural differences, increase cultural sensitivity, and increase cultural empathy in a forum that discusses racial and cultural issues for both advisors and advisees (Schlosser et al., 2011b).
References


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