

ADJUSTMENT CHALLENGES FOR EAST ASIAN INTERNATIONAL STUDENTS

A THESIS

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Abstract

The process of adjusting to a new cultural environment is often considered to be quite stressful. International students of East Asian backgrounds sometimes experience even greater adjustment challenges (e.g., language barriers) which may lead to elevated stress levels. The psychological well-being of these students is also endangered if their excessive stress is not controlled and ameliorated. The current thesis therefore provides an in-depth review of literature documenting common stressors reported by East Asian international students, and the relationship of such stressors to possible outcomes such as depression and anxiety disorders. To better inform services providers about East Asian international students' unique needs, help-seeking attitudes and behaviors of these students will also be briefly reviewed. Limitations of prior studies, future research directions, as well as suggestions for ways to better assist East Asian internationals are also discussed.

Keywords: East Asian, international students, adjustment, stress, mental health

Adjustment Challenges for East Asian International Students

International students pursuing academic study in the United States often encounter stressors (e.g., financial concerns, uncertain immigration status, language barriers, and perceived discrimination) above and beyond the typical difficulties associated with college life. Cross-cultural research suggests that international students from collectivist cultural backgrounds, such as East Asians, may experience lower levels of life satisfaction and higher levels of anxiety than international students from individualist cultures (Sam, 2001; Surdam & Collins, 1984). This disparity may be due to the fact that when greater levels of cultural dissimilarity exist between two cultures, international students experience higher levels of adjustment stress (Surdam & Collins, 1984; Yang & Clum, 1994). Such stress is a likely contributing factor to symptoms of mental disorders such as anxiety and depression.

Meanwhile, educational institutions may also have a harder time providing international students (including East Asians) with sufficient and helpful guidance to facilitate their adjustments to a new cultural environment. Counselors and therapists trained in traditional settings are typically equipped with knowledge and therapeutic interventions that apply to the domestic American population, and therefore may lack alternative worldviews and perspectives that are required for being cross-culturally competent in terms of helping international students with their unique needs (Heppner, 2006). In the event that international students are not provided with adequate and

effective assistance during their adjustment stage, they might be at a disadvantage of handling multiple stressors and may be prone to developing mental health problems, poor academic performance, and may even dropout.

Research suggested that the delivery of adequate support for international students in general may lead to improved student retention as well as increased recruitment (Ward, 2001). Additional evidence has shown that future recruitment of international students may be at risk for academic institutions that do not consider international students' needs and provide sufficient help (Brown & Holloway, 2008; Ryan & Carroll, 2005).

Thus, understanding the needs of international students and assisting those students with their adjustment difficulties are on-going tasks for support services on campus. Even though institutions of higher education are likely to be aware of challenges faced by such international students and might have taken steps to address those issues, they may be overlooking important elements of these students' experiences.

International Student Population Defined

The terms "international student" and "foreign student" commonly refer to a student who studies abroad in a host country for a short period of time (Wang, Lin, Pang, & Shen, 2007). While immigrant minority students come from families that have established permanent residence or citizenship in countries other than their home countries, international students typically hold temporary non-immigrant visas (e.g., in the United States, F-1 visa holders are degree-seeking and J-1 visa holders are

exchange/visiting scholars) during their sojourns in the host country. First generation immigrant students who were born in their home countries may share the same (or similar) characteristics as the international student population during their initial period of residence in the United States, since these new immigrants may also encounter difficulties (e.g., language barriers) in adjusting to a new cultural environment. Nonetheless, immigrants may have access to greater familial support and other resources that are only available for permanent residents and citizens (e.g., federal financial aid).

Profile of International Students

During the 2008-2009 academic year, the number of international students attending U.S. colleges and universities reached a historic high of 671,616, in contrast to only 25,464 international students enrolled in 1948 (Institute of International Education, 2009). Among the total international student population in 2009, more than 400,000 were from Asian countries (including China, India, Japan, South Korea, and Taiwan among the top places of origin). These students comprised about 60% of the total enrollment of international students for that year. A more recent report suggested that these numbers continued to grow during the 2009-2010 academic year (Institute of International Education, 2010). China had an increase of 30% during that year to approximately 128,000 students, more than 18% of the total number of international students enrolled in U.S. colleges and universities. During the same academic year, more than 123,000 international students were from Japan, South Korea and Taiwan.

Rationale

Population of interest. East Asian international student populations (especially those from China, Japan, South Korea, and Taiwan) are the focus of this review, based on the following considerations: 1) East Asian students represent one third (about 250,000) of the foreign students attending U.S. higher education, and this number is expected to grow in the future; 2) Asian students in general have been found to experience higher levels of adjustment difficulties than other international student populations (Lee, Abd-Ella, & Burks, 1981; Surdam & Collins, 1984); and 3) Evidence also suggests that East Asian international students have even greater adjustment difficulties than students from South Asia (Sharma, as cited in Lee et al., 1981). It is worth noting, however, that cultural differences may still exist between individuals from different East Asian countries, even though they are commonly studied as one cultural group.

Finally, due to the fact that a limited number of researchers have studied East Asian international students specifically, the majority of literature discussed in this review examined international student populations of different cultural backgrounds in general (including African, Asian, European, and South American students). The proportion of East Asian international student samples in each of those studies will be reported when such data are made available by the author(s). The results from studies without specified percentage of Asian or East Asian participants should be interpreted

with caution and their generalizability to East Asian international students is questionable to some extent.

Scarcity of prior research. While stress related to adjustment challenges and the associations of such stress with mental health problems among international students in general have been documented in the literature (Bourne, 1975; Lee, Koeske, & Sales, 2004; Misra, Crist, & Burant, 2003; Oropeza, Fitzgibbon, & Baron, 1991; Ying & Han, 2006), there is limited research in this area that has focused on East Asian students. The online database *PsycINFO* returned 797 results of publications (including dissertation abstracts and reviews) that contained both “adjustment” and “international students” as key words with no other criteria specified. Of those, merely 75 research studies measured international students’ adjustment in relation to their mental health (using “adjustment,” “international students,” and “mental health” as key words for search). Furthermore, only 10 results were found using the same key words as above, when the *subject* field is refined to only include research studies that have specifically investigated Asian samples. Thus, further research is clearly warranted in the area of East Asian students' adjustment concerns and mental health needs, particularly given that the population of East Asian international students is rapidly expanding in U.S. educational institutions.

Contribution of current review to the literature. Even though a few reviews in the extant literature that have discussed the topic of international students’ adjustment

(Martinez, Huang, Johnson, & Edwards, 1989; Wang et al., 2007; Zhang & Goodson, 2011), the current review differs from past reviews in terms of the target population and its scope. The book chapter written by Martinez et al. (1989) focused specifically on therapeutic issues and treatment for both traditional ethnic minorities and international students in general. Zhang and Goodson (2011) mainly evaluated the methodological quality of past studies. Even though Wang et al.'s (2007) review specifically looked at Asian international students, its emphasis was on discussing theoretical models that explain the associations between adjustment processes and outcomes for those students.

In contrast, the current review focuses on a wider array of specific stressors as well as their association with mental health problems among East Asian international student populations. This review also discusses help-seeking and coping behaviors among these populations, so that mental health professionals can become aware of the unique cultural values, perspectives, and experiences shared by many East Asian international students. In addition, the current review incorporates more recent cross-cultural studies which were not included in past reviews.

Goals of Current Review

The following systematic review of stressors and their relations to symptoms of psychological disorders among East Asian international students will offer information about the unique challenges faced by this population, with the goal of helping mental health researchers, support personnel, and counseling professionals understand the links

between such needs and the mental health status of this population.

The overarching goal of this review is to uncover areas that are worthy of empirical investigation yet have been overlooked/under-researched, regarding adjustment and mental health needs among international students of East Asian cultural backgrounds. Moreover, cross-cultural manifestations of mental health problems as well as help-seeking and coping behaviors, of East Asian international student populations, will be discussed. Finally, recommendations for improving future interventions targeting at East Asian international students will be made for counseling professionals and support personnel who provide services to this population.

Review of Literature

Prevalence of Mental Disorders in East Asia and the United States

Due to the absence of literature reporting specifically on prevalence of mental health problems among East Asian international students (or even international students in general), available statistics regarding prevalence of mental disorders (especially depression and anxiety) among adolescents and young adults residing in each East Asian country/region are reported below (statistics of Mongolia and North Korea are missing). Undergraduate international students typically enter the United States in their late adolescence and early young adulthood, whereas incoming graduate international students are usually young adults. Therefore, information about the prevalence of mental disorders among native East Asian adolescents and young adults might helpful in

understanding the mental health needs among international students from East Asia.

Taiwan. In a sample of 9,586 southern Taiwanese adolescents around the age of 15, Lin et al. (2008) found that 12.3% of the participants reported major depressive symptoms at the time of the study. In another sample of native Taiwanese people between the ages of 16 and 20, Huang and Guo (2009) found that the prevalence rate of depression was 13.4%. Regarding anxiety prevalence among Taiwanese adolescents, Gau, Chong, Chen, and Cheng (2005) reported that 9.2% of seventh graders, 7.4% of eighth graders, and 3.1% of ninth graders were diagnosed as having anxiety disorders.

Japan. In a study carried among Japanese adolescents (ranging between 12 and 14 years of age), Sato, Shimotsu, and Ishikawa (2008) found that current and lifetime prevalence of depressive disorders were 4.9% and 8.8%, respectively. Among adolescents who reported current depression, 31% had suicidal ideation and 18.8% had attempted suicide. In a study of Japanese junior high school students (aged around 14), researchers found that 35.3% of the participants reported a history of suicidal ideation (Katsumata, Matsumoto, Kitani, & Takeshima, 2008). More recent results from the World Health Organization (WHO) mental health survey initiative (Kessler et al., 2010) revealed that the prevalence of any type of DSM-IV mental disorders among 18- to 34-year-old Japanese was 4%, and the prevalence of mental disorders for all other age groups in Japan were much lower.

China. Studies conducted in China have also reported on the prevalence of

symptoms of depression and anxiety among Chinese adolescents and young adults. In a cross-sectional survey in rural and urban areas of Zhejiang Province, Hesketh and Ding (2005) surveyed 1576 Chinese adolescents between 13 and 16 years of age. They found that about one third of participants had a history of depression, 16% had thought life was not worth living, and 9% had attempted suicide. Results from another study conducted by Leung et al. (2008) suggested that the point prevalence of common DSM-IV/DISC-IV disorders was 16.4% (6.9% for depression and 1.3% for anxiety disorders) among Hong Kong adolescents in grades 7, 8 and 9. In a sample consists of more than 5000 residents of Beijing and Shanghai, Lee et al. (2008) found that the prevalence of 12-month and lifetime major depressive episode among participants aged between 18 and 34 was 2.4% and 4.1%, respectively.

South Korea. In a study conducted by Ohayon and Hong (2006), results showed that the prevalence of major depressive disorders was 3.8% among South Korean people between the ages of 15 and 24. No other report of the prevalence of depression or anxiety among South Korean population was found in the *PsycINFO* online database.

United States. With regard to U.S. populations, the reported lifetime prevalence of depression and anxiety disorders among American adolescents (aged between 13 and 18) is 11.7% and 31.9%, respectively (Merikangas et al., 2010). The reported lifetime prevalence of depression and anxiety disorders among American young adults (aged between 18 and 29) is 15.4% and 30.2%, respectively (Kessler, Berglund, Demler, Jin,

Merikangas, & Walters, 2005).

Summary. While the prevalence of depression and anxiety among U.S. appears much higher than the prevalence among native East Asian populations, different instruments and demographic samples (urban versus rural) could have been used across different studies. The discrepancies make comparison of the prevalence rates of native East Asians to U.S. population problematic. Nonetheless, discussion of whether the above prevalence rates are comparable is beyond the scope of this review. Future studies should directly assess the prevalence of mental disorders among East Asian international students, as well as foreign students in general, using standardized and well-established instruments.

Moreover, whether international students are representative of native populations in their home countries remains unknown. Therefore, the above statistics may not be appropriate for explaining the prevalence of mental disorders among East Asian international students. The prevalence of mental health symptoms might be higher among East Asian international students than their counterparts who study in their home country, since adjustment difficulties may result in greater levels of stress. However, it is also possible that East Asian international students, who choose to pursue the path of studying abroad, may have fewer psychological concerns than people who stay in their home countries.

Adjustment Challenges and Models of Stress

While the steadily increasing number of international students has enhanced cultural diversity and promoted global perspectives for U.S. colleges and universities in the past decades, it has also posed challenges for academic institutions and mental health professionals who provide assistance to foreign students regarding their adjustment into new environments (Tidwell & Hanassab, 2007). This section aims to investigate common adjustment challenges for East Asian international students. Associations between mental health problems (specifically depression and anxiety) and such concerns and stressors will also be reviewed. In addition, models proposed by past researchers trying to explain the interrelationships between stressors are discussed at the end of this section.

Adjustment challenges their associations with mental health problems. East Asian international students pursuing higher education in the United States not only experience the same adjustment difficulties as typical domestic students, but they also have to cope with additional stressors that domestic students do not. For example, international students' families and friends could not provide direct and immediate support since they are far away in their home countries. In the event that international students who experience high levels of stress do not receive the help they needed, they are at risk for developing mental disorders.

Stress from various sources often leads to psychological health problems among international student populations (e.g., Cater & Forsyth, 2010; Leong, Mallinckrodt, &

Kralj, 1990; Wei et al., 2007). As documented in past literature, the unique stressors discussed in this review are present among international students in general, and they were identified as predictors of depression and anxiety (e.g., Mori, 2000; Sümer, Poyrazli and Grahame, 2008).

Prominent stressors perceived by international students that have been investigated, among others, include dietary acclimatization (Brown, Edwards, & Hartwell, 2010), financial concerns (Yang & Clum, 1995), immigration status (Crano & Crano, 1993), language barriers (Arthur, 1997), academic stress (Misra et al., 2003), loss of social support (Yang & Clum, 1994), and perceived discrimination (Sandhu & Asrabadi, 1994).

While each of these unique stressors is found to be a significant predictor of international students' adjustment problems and mental disorders, there are often interrelationships between stressors. For instance, while language difficulty and discrimination can be studied as independent stressors, international students might be discriminated by American students partly because of their low English proficiency.

It is worth pointing out that other types of stressors such as homesickness (Poyrazli & Lopez, 2007) and acculturative stress (Wei et al., 2007) were also found in the literature. However, it may be more reasonable to distinguish and identify these factors as higher-order stressors that consist of the more fundamental stressors mentioned above (e.g., language, food and loss of social support are major aspects that constitute the

notion of homesickness), and therefore those higher-order stressors are excluded from this review. The higher-order stressors and their relations to more fundamental factors shall be investigated in future empirical research.

Dietary acclimatization. An important though sparsely-researched stressor in the literature regarding international students' (especially East Asians') adjustment in a new environment is their levels of acclimatization to American food and drinks. As a part of acculturation process, international students may encounter difficulties while accommodating to the dietary differences in the United States (Sandhu & Asrabadi, 1994). In a sample of East Asian immigrant students who were born in their home countries (89% were born in either China or Taiwan), about 59% of the participants reported changes in eating patterns due to multiple factors (e.g., no time to prepare traditional foods, unavailability of ethnic foods, poor quality of ethnic foods; Pan, Dixon, Himburg, & Huffman, 1999). In this study, on average fewer meals were consumed yet 62% of the sample reported an average increase of 5 pounds in weight since their arrival in the United States (Pan et al., 1999). Although it was not specified explicitly by the researchers, the decrease in the number of meals consumed and the increase in weight might be attributed to changes of eating patterns (i.e., limited access to ethnic foods, increased consumption of more fatty and sugary foods) among these East Asian students.

Research has indicated that, as a core component of one's own culture, food is important for international students' emotional and physical well-being while abroad, and

that acclimatization to unfamiliar tastes of new types of food is one aspect of the experience that those students find quite distressing while adjusting to a new culture (Brown, Edwards, & Hartwell, 2009; Furukawa, 1997). Findings from a qualitative research study conducted in the United Kingdom suggested that international students would experience positive feelings of comfort and safety when they are served with familiar food of their home country (Brown et al., 2009). In the same study, researchers argued that having food from one's home country could ease international students' anxiety of unfamiliarity (toward foreign food), as well as their concerns about gaining weight through Western fast food intake (Brown et al., 2009).

Nonetheless, no research to date has conducted in the United States assessing international students' levels of adjustment difficulties as a function of their levels of adaptation to food and drink in host countries. Future research may investigate whether acclimatization to new food predicts levels of adjustment and/or psychological well-being of international students—especially East Asian students, whose ethnic foods are drastically different from American foods.

Financial concerns. According to the U.S. Department of Commerce, international students in general contributed close to \$18 billion to the U.S. economy in 2008 (as cited in Siegmund, 2009). In addition, according to the *Open Doors* report (Institute of International Education, 2010), funding from outside of the United States (mostly from their parents and other sources) contributes nearly 70% of the total support

of international students' education in the United States. East Asian international students who are supported by sources outside of the United States, particularly those from less well-off backgrounds, would likely have concerns about paying 7 times (comparing to Japanese college tuition and fees; International Comparative Higher Education Finance and Accessibility Project, 2003) or even 32 times (comparing to Chinese college tuition and fees; Wang, 2009) more than they would have paid for education in their home countries (Ehrenberg, 2007). Beside, the living costs in the United States may be much higher than in many East Asian countries. A study conducted by Kwon (2009) also provided empirical evidence about the financial needs of international students. In a sample of 165 international students including 106 Asian, approximately 60% rated financial pressure as their biggest concern while studying in the United States. Finance is clearly a problem for many international students and their families, although there are no statistics reporting the percentage of international students attending U.S. higher education who are having trouble financing their education.

In spite of their financial needs, international students in general have very limited personal income as they are not allowed to work off campus and are limited to 20 hours of work per week on campus when classes are in session, due to federal immigration regulations. What further exacerbates the financial burden of an international student is that they have very limited opportunities to apply for financial aid and employment off campus in the United States due to immigration laws (Thomas & Althen, 1989). In fact,

international students rely heavily on their family support for expenditures in the United States (Arthur, 1997).

These facts and statistics suggest that international students might be undergoing greater financial pressure than they have anticipated. The immediate and extended families of international students from families with limited resources are likely to have financial difficulties. As a consequence, students who consider themselves as unduly burdening the family might experience excessive pressure because they might regard achieving academic success as an obligation to the family (Pedersen, 1991). Hence, with the impact of financial problems, a student may experience higher stress which might lead to other adjustment issues and mental health problems. Nevertheless, it is worth mentioning that some international students are from more privileged backgrounds (e.g., wealthy families) in their home countries, and they presumably would be less concerned about financing their education while abroad.

In the mental health literature, research has indicated that Asian international students who reported higher financial concerns as part of a life stress index also experienced higher levels of hopelessness and suicidal ideation (Yang & Clum, 1995). However, there is no research that has specifically studied the direct association between financial concerns and symptoms of other mental health problems such as anxiety among international student populations. Future research may shed light on such relationship since financial support is crucial for the continuation of international students' education

abroad. Unresolved financial concerns among international students might also lead to higher dropout rates, as well as greater likelihood of seeking jobs off-campus, which in turn may jeopardize their legal immigration status (see immediately below).

Immigration status. U.S. immigration regulations may be an additional source of stress for international students since violation of immigration laws by an international student might result in deportation and permanent expulsion. With U.S. immigration law requiring full-time status for international students, dropping/withdrawing from courses is rarely an option even if they struggle with the workload or content of some advanced level courses. In the case of an F-1 visa holder (i.e., a degree-seeking international student) not maintaining full-time status, the U.S. immigration regulations might prevent that person from reentry into the academic program and to the United States (Fragomen, Del Rey, & Bell, as cited in Collingridge, 1999).

The new electrical information system SEVIS (the Student-Exchange Visitor Information Citizenship and Immigration Services) introduced after 9/11 also caused more concerns among international students regarding their temporary status in the United States (Tidwell & Hanassab, 2007). In a sample of 640 international students, Tidwell and Hanassab found that the majority of them rated gaining knowledge about immigration and visa requirements as their highest concern, even exceeding their concerns for career, academics, culture, and psychological well-being.

In addition, international students who excessively worry about their legal status

after graduation may experience greater levels of anxiety as well. International students are forced by immigration law to leave the United States, if they cannot find an internship/job within certain period of time after graduation. Hence, international students who intend to stay after graduation may be highly anxious about securing a job and maintaining their legal status.

To date, there is no research that has investigated the direct association between symptoms of mental disorders and international students' stress resulting from their concerns about immigration status, although such relationship is worthy of empirical study since the fear of losing legal temporary status could be very intense. Future research may look at whether immigration concerns contribute to higher levels of other types of stress as well.

Language barriers. Even though all international students whose native language is not English are required to submit a proof of English language proficiency (e.g., the TOEFL administered by the Educational Testing Services) before enrolling in an academic program, satisfying the minimum language requirement does not guarantee an international student's mastery of English. For many East Asian international students, the linguistic system of their native languages (e.g., Japanese is in Altaic language family) is quite distinct from English (Miyagawa, 1999), and these languages are spoken and written in very different ways. Therefore, East Asians may experience more difficulties in learning English than some other international students (e.g.,

Europeans, or even South Asians) whose first languages are close relatives to English. In fact, the majority of international students from Asian countries do not speak English as their mother tongue and many of them did not have exposure to English language until adolescence. Hence, Asian international students are expected to encounter language barriers when they first arrive in the United States.

Past findings indicated that Asian international students may have greater language barriers in particular. In a study conducted on four U.S. university campuses, Asian international students in general were found to have lower English proficiency than European international students (Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004). In a following study conducted by Poyrazli and Kavanaugh (2006), researchers also found consistent results regarding Asian international students' English proficiency in comparison to other international student populations.

Research has suggested that English proficiency is a significant predictor of international students' adjustment issues and a significant contributor of life stress among these populations (e.g., Misra et al., 2003; Dao, Lee, & Chang, 2007; Poyrazli et al., 2004; Yang & Clum, 1994). In terms of the relationship between language difficulty and mental health problems, researchers have found that Chinese international students who have difficulties communicating with local students may be at greater risk for developing depressive symptoms (Spencer-Oatety & Xiong, 2006). Researchers also found that Asian international students (34% were East Asians) who reported greater language

difficulties (as an index of life stress in general) experience higher levels of hopelessness and suicidal ideation (Yang & Clum, 1995). Another study comparing Asian and European international student populations revealed that international students of Asian origins, who expressed more difficulties in language, had higher levels of anxiety (Fritz, Chin, & DeMarinis, 2008). Sumer et al. (2008) have suggested that levels of English proficiency correlate directly with level of depression and anxiety among international students (35% of participants in the study were East Asians). Further research has also indicated that young Korean immigrants who had difficulties of expressing themselves due to language barriers may be at greater risk of experiencing depression and other psychological problems (Jung & Hecht, 2008).

In addition, given the significant role language plays in everyday life, low levels of English proficiency may be associated with higher levels of academic stress (e.g., anxiety about not understanding lectures and discussions). Language barriers may also prevent East Asian international students from establishing friendships with other English-speaking students and building social support networks, although one contrary finding (Poyrazli et al., 2004) suggested that self-reported language proficiency is not significantly associated with levels of perceived social support. Details regarding academic stress and social support will be further discussed in following sections.

Future research looking at the impact of language on adjustment, especially among East Asian international students, should include an analysis of the interrelationships between

English language proficiency and other stressors.

Academic stress. As language is an integral part of education, international students who have language barriers may be expected to experience greater academic stress. Given that the American education system is very different from many East Asian countries' education systems, international students from East Asia may encounter unfamiliar administrative procedures (e.g., different course registration process). Some students may also have difficulties meeting unfamiliar expectations from instructors and participating in discussions with fellow students. In general, international students who are not familiar with slang/colloquial expressions and U.S. cultural/historical events may have difficulties understanding classroom instructions and discussions. Furthermore, East Asian students who are typically shy about participating in in-class discussions may also perceive higher levels of stress, since many instructors (especially at the graduate level) give participation credits toward students' final grades (Collingridge, 1999). Some East Asian international students who tend to be silent in classrooms might even feel socially marginalized (Kwon, 2009). Limited English writing skills among international students is another source of academic stress, since written assignments and essay examinations are common forms of evaluation of student performance in addition to participation grades in U.S. classrooms.

With regard to the relationship between academic stress and mental disorders, Misra et al. (2003) found that high levels of academic stress among international students

are associated with undesirable outcomes including depression, anxiety and substance abuse. However, in another study comparing international students and American students, Misra and Castillo (2004) found that international students experience less academic stress than American students. Such difference could be attributed to some international students' stigma associated with self-disclosures of academic incompetence and personal stress (Uba, as cited in Misra & Castillo, 2004). The researchers therefore suggested that further research should investigate whether international students from different cultures vary in terms of perceived academic stress.

Other researchers have suggested that international students of Asian origins may experience excessive academic stress due to high expectations from themselves, families and friends. On one hand, many international students are top ranked students in their home countries before attending U.S. higher education (Pedersen, 1991). Thus, these students who have very high expectations about their performance in a new environment might perceive higher levels of academic stress if they fail to achieve the same level of success as they had in their home countries. In a sample of Chinese international students, Wei and colleagues (2007) found that those with unrealistic academic goals tend to develop depressive symptoms.

In addition, international students from certain Asian cultures may value achieving academic success as their filial responsibility (Stevenson, Lee, & Stigler, 1986). Research scholars have suggested that such notions might be related to a cultural

perspective that values academic achievement as the only way of proving personal success and gain higher social status in some Asian cultures (Liem, 1997). Yan and Berliner (2009) found that Chinese international students who experience academic stress resulting from these cultural perspectives reported higher levels of anxiety. Therefore, those Asian international students who share the same perspective might experience higher levels of academic stress than international students from other regions and therefore develop mental health problems.

Loss of social support. Social support is a broad but complex construct which can be operationally defined in different ways (Helgeson, 2003). This section mainly focuses on two aspects of the construct: emotional support (care, love and sympathy), and instrumental support (tangible assistance and resources).

Although many domestic students might also experience loss of social support when they leave home for college, East Asian international students are in greater need of social support due to the fact that most of them travel to this continent alone, have to speak a new language, eat different food, and learn new customs and social manners. International students are also faced with the challenge of keeping in touch with friends and family in their home countries at the same time as they establish new social relationships during their sojourn in the United States.

With the advancement of modern technology, international students typically have no problem staying in contact with families and friends via telephone and/or internet.

Thus, international students in general would be expected to have less difficulty accessing emotional support from their family and friends. However, in such cases, Asian students might still have a hard time maintaining communication with their families and friends in home countries because of time differences between Asian and North American time zones (e.g., 2 p.m. Eastern Standard Time is 2 or 3 a.m. in most East Asian regions during the Daylight Saving Time period).

Moreover, East Asian international student are not able to travel back home as often as American students because of the time-consuming and expensive trip between North America and Asia. Also, it is not easy for families of these international students to come and visit the students not only because of distance, but sometimes also due to non-immigrant visa denial by the U.S. government. Therefore, international students who study abroad without direct access to tangible support (e.g., prepared food) from families are more likely to have feelings of being unsupported. Research has indicated that developing new social relationships and establishing new support systems in the United States are important coping mechanisms for those international students (Hayes & Lin, 1994).

However, in a structural equation model that examined both a direct and a mediating effect of social support on the relationship between life stress and academic stress, Misra et al. (2003) found that friends and family in home countries as well as co-nationals on campus are major sources of social support for international students in

general (the percentage of Asian international students were not specified, however).

Such support was found to be effective in terms of reducing their academic stress as well as symptoms of mental disorders. Nonetheless, results of another study suggested that Taiwanese students may refrain from seeking help from their friends or family back home since they often try to avoid burdening others with their problems (Heppner, Heppner, Lee, Wang, Park, & Wang, 2007).

The association between social support and mental health problems among international students has been well documented in the literature. Past findings have shown that lower levels of social support predict symptoms of mental health problems among international students (e.g., Sümer et al., 2008; Yang & Clum, 1994; 1995). In a sample of Asian international students, Yang and Clum (1994) found that low levels of social support are associated with lower adjustment levels and higher levels of depression, hopelessness and suicidal ideation among these students. Further research by Sümer et al. (2008) revealed an inverse relationship between levels of social support and symptoms of depression and anxiety among 440 international students surveyed. In a sample of Japanese high-school exchange students, Furukawa (1997) also found that lack of social support while sojourning in foreign countries contributed to increased levels of depression.

Perceived discrimination. As members of an underrepresented ethnic group in the United States, East Asian international students may also experience stress as a result

of discrimination, since ethnic and racial discrimination is still prevalent on U.S. college campuses (Biasco, Goodwin, & Vitale, 2001; Rankin & Reason, 2005). For instance, Poyrazli and Grahame (2007) reported that some international students encounter incidents of racial discrimination on campus such as being disregarded by other project team members during group discussions. In the same qualitative study, non-white international students also reported discriminatory customer service they received off-campus where rude salesmen assumed the students could not understand English. In fact, research has found that both international students (65% were Asian international students; Poyrazli & Lopez, 2007) and first-generation immigrant Chinese-American students (Ying, Lee, & Tsai, 2000) perceive higher levels of discrimination and were more likely to be alienated than domestic minority students (including American-born Asians). In addition, compared to European international students, Asian, African and South American international students reported higher levels of perceived discrimination (Sodowsky & Plake, 1992).

Concomitant research has suggested that racism-related prejudice and discrimination are significant sources of stress among racial minorities in general (Dion, 2002; Harrell, 2000), and incidents of racial discrimination may endure for years which might result in traumatic stress (Carter & Forsyth, 2010). Moreover, the positive association between perceived discrimination and psychological distress was found in a Chinese population even when general stressors are statistically controlled (Dion, Dion,

& Pak, 1992).

Further research has demonstrated that racial discrimination, when perceived as a stressor, is positively associated with symptoms of mental disorders within various Asian populations including East Asian international students (Jung, Hecht, & Wadsworth, 2007; Mossakowski, 2003; Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Noh & Kaspar, 2003; Wei, Ku, Russell, Mallinckrodt, & Liao, 2008). In a sample of 354 Asian international students (70% of participants were East Asians), Wei and colleagues (2008) found a positive association between perceived discrimination and levels of depression when other perceived stress was controlled. Other researcher (Jung et al., 2007) also suggested that perceived discrimination had direct impact on depression levels among international students (59% of participants were East Asians).

Models of stress. As mentioned previously, the stressors reviewed above sometimes interact with each other although each factor may have direct impact on stress and mental health problems. With the attempt to explain the interrelationships among stressors, past researchers have proposed different models of stress factors.

Some researchers considered academic pressures, language barriers, difficulty in adjusting to new food, loss of social support, and perceived discrimination as contributors to acculturative stress (Pedersen, 1991; Sandhu & Asrabadi, 1994; Yeh & Inose, 2003). Other researchers claimed that these factors should be sorted as internal (e.g., English proficiency) and external (e.g., social support) attributes. Another researcher has

proposed that life stress in general (e.g., language barriers, acculturative stress, financial concerns, etc.) should be considered as primary stressors, and secondary stressors (such as academic stress) are consequences of primary stressors which may then become an independent source of stress (Misra et al., 2003). However, none of these models have been extensively tested or evaluated.

Finally, it is worth noting that these models and taxonomies are not necessarily mutually exclusive. A more comprehensive system that captures these different models may be introduced in future research.

Summary. Based on the above review, the associations between some types of stressors and mental health problems are well established in past literature, whereas some other topics were under-researched.

Even though acclimatization to Western food is an important aspect of East Asian international students' sojourning life, it has been mostly studied as an indicator of acculturation levels. Future research may examine the magnitude to which acclimatization to food contributes directly to stress and psychological well-being among this population.

Another stressor that needs further research is the topic of East Asian international students' financial concerns. Although past finding has linked financial difficulties (an indicator of life stress in general) to higher level of hopelessness and suicidal ideation (Yang & Clum, 1995), more empirical evidence is demanded in this area.

Moreover, literature on fear of losing legal status and its relation to psychological problems among international students in general is hard to find. As a unique factor that influences international students' life experience abroad, immigration regulations may pose enormous pressure and stress of which many American researchers might not be aware.

In contrast, areas such as language barriers, academic stress, loss of social support, and racial discrimination are supported by abundant empirical research. The associations between these factors and mental health issues among East Asian foreign students are also documented in the literature. In general, these stressors are found to be associated with symptoms of mental disorders, such as depression and anxiety, within different international populations.

As shown in the past literature, these stressors are often interrelated and can be classified into categories and/or hierarchies. While several researchers have proposed and examined different models of the interrelationships between stressors, systematic empirical investigation of these models is still lacking.

In sum, further research in this field may benefit from exploring emerging areas such as acclimatization to food, financial concerns, as well as the fear of losing legal status. Testing theoretical models and mapping out the interrelationships between stressors may help researchers focusing on important questions as well as discerning new directions for future investigation.

Help-Seeking and Coping Behaviors

This section will provide a brief overview of research focusing on East Asian international students' coping styles, attitudes toward counseling, and their help-seeking behaviors. An understanding of this literature may inform counseling professionals and other support service providers such that they may initiate more effective approaches to East Asian international students who experience adjustment difficulties.

Manifestations of symptoms. With regard to manifestations of symptoms, researchers have suggested that Asian students tend to apply suppressive coping styles using their inner resources, such as willpower, to resolve their emotional distress, rather than reactive manifestations such as impulsive behaviors (Wei et al., 2007). Such coping strategy might be attributed to the fact that self-forbearance of personal problems/concerns is encouraged in many collectivist cultures (Lee, 1997; Marsella, 1993). East Asian international students, as members of such cultures, may consider self-disclosure of personal issues as unnecessarily burdening others and therefore practice emotional restraint (Lee, 1997). Meanwhile, students who share such cultural values are likely to underreport their psychological distress (Sandhu, 1997). This makes the research and treating of symptoms among these populations particularly difficult.

Other researchers have also suggested that some Asian students who have stigmatizing attitudes about help-seeking may somaticize their feelings of stress such that other people would not perceive them as having psychological problems. The

resulting experience would therefore be manifested as suffering from physical distress (Kuo & Kavanagh, 1994; Miller & Harwell, 1983). Common manifestations of symptoms include dizziness, fatigue, cold, internal pain, insomnia, and neurasthenia (Aubrey, 1991). Thus, support providers and service personnel should be alert to Asian students who report physical problems, as they might be in fact seeking relief for underlying psychological distress.

Help-seeking behaviors. International students (especially East Asians) were found to be less likely to seek counseling help than domestic students, in spite of the fact that they tend to experience greater level of adjustment difficulties (Mori, 2000; Sandhu & Asrabadi, 1994; Yakushko, Davidson, & Sanford-Martens, 2008). Past findings have also suggested that Asian international students are inclined to seek help from friends/counselors of same ethnicity (Aubrey, 1991; Bourne, 1975; Tedeschi & Willis, 1993). Another study conducted by Leong and Sedlacek (1986) indicated that international students (54% of subjects were Asians) prefer to seek support from families, friends, and their co-nationals on campus, rather than from fellow American students or professionals.

One possible explanation for these findings is that Asian international students in general have limited English language skills (see previous “**Language Proficiency**” subsection) and therefore they might have difficulties expressing their emotions and experiences to counselors who do not speak the native language of the students.

Another reason could be that, because of cultural stigma attached to seeking formal help, people from collectivistic cultures (e.g., Asian international students) tend to seek help and support more frequently from family members and close friends (Moore & Constantine, 2005). However, the discussion of cultural influences on stigma toward help seeking is beyond the scope of this review. The reader is therefore referred to the extensive research conducted among Asian-American immigrants (e.g., Shea & Yeh, 2008; Ting & Hwang, 2009), as well as among international student populations (e.g., Dadfar & Friedlander, 1982) regarding this topic.

In addition, research among an international graduate student sample (50.8% were Asian international students) has suggested that knowledge about available counseling services was relatively lower than among domestic students (Hyun, Quinn, Madon, & Lustig, 2007). Low levels of awareness about counseling services might also explain less frequent utilization of counseling services by foreign students.

Summary. East Asian international students often suppress and/or somaticize distressful feelings when they experience mental disorders. They were also found to rely heavily on family and friends for support instead of seeking help from counseling professionals.

Several factors found to be related to these coping and help-seeking behaviors include but not limited to: inability of expressing psychological feelings in English, cultural stigma toward seeking professional help, and low awareness of existing support

services on campus. Understanding of these factors and their impact among East Asian international population will not only help support services and counseling providers to identify symptoms of mental disorders among these students, but will also enable professional counselors to initiate effective interventions. However, more research needs to be conducted to identify what particular counseling interventions may be appropriate for East Asian international students.

Limitations of Prior Research

As mentioned previously, international students from different countries and cultural backgrounds may face different challenges and have unique needs. Despite the fact that the growing body of East Asian international students might have drawn the attention of many researchers in recent years, research has sparsely touched upon this population specifically regarding their adjustment challenges and mental health needs.

Furthermore, some research that investigated international students in general did not report sample composition (e.g., percentage of students from different cultural backgrounds). Without providing detailed demographic information, these findings are particularly obscure and therefore are difficult to be interpreted and referenced by follow-up researchers in this field.

Moreover, the links between certain stressors and symptoms were not established due to the lack of empirical research in those areas (i.e., acclimatization to food, financial concerns, and immigration status concerns). The interacting effects of different

stressors and their impact on students' mental health were also under-researched in past literature.

Finally, the prevalence of mental disorders and specific symptoms tend not be reported in studies of East Asian international students. Besides, only a few studies adopted a pretest and posttest methodology to compare international students' psychological well-being before and after leaving their home countries (e.g., Furukawa, 1997). Thus, it is still not clear whether international students' symptoms of mental disorders reported in the literature were preexisting issues or outcomes of distressful sojourning experiences.

Recommendations

Directions of Future Research

In general, more research with a focus on East Asian foreign students (or even international students in general) should be conducted regarding their adjustment challenges and psychological well-being in the United States. Specifically, acclimatization to food, financial concerns, fear of losing legal status, as well as their impact on levels of stress and symptoms of mental disorders among East Asian international populations, are in great need for in-depth research. Further empirical evidence in these areas will not only strengthen the groundwork for follow-up research in this field, but will also advance our understanding of East Asian international students' unique experiences in applied settings.

Moreover, future research should examine the interrelationships among various stressors discussed in the literature, and determine which factors are most influential in terms of predicting East Asian international students' adjustment. In order to facilitate this process, different models proposed by different researchers (see previous “**Models of Stress**” subsection for review) should also be tested and refined, and the moderating/mediating role of individual stressors in the theoretical frameworks should be analyzed.

Regarding research conducted in applied settings (e.g., counseling centers, office of international services, etc.), use of randomized samples and control groups are important for evaluating the effectiveness of different approaches that are suggested below. More research with a focus on help-seeking behaviors of East Asian international students will also deepen our understanding of their mental health needs.

Suggestions for Programs and Services

To address East Asian international students' various adjustment difficulties at an early stage, orientation programs that are created specifically for these students may provide more information regarding ethnic food choices, scholarship opportunities, legal status regulations, language training sessions, academic tutoring services, mentoring services, and pre-/post-discrimination support. International student services personnel may also organize informal talks with international students regularly while school is in session, so students' concerns could be shared without much fear of being stigmatized.

Other approaches may also be initiated by institutions and programs to help the

adjustment process of international students in general. For example, international student office may recruit American students as volunteers who may organize extracurricular activities, events, or even everyday conversations, on a regular basis for international students. Such partnership program may benefit both American students and international students—international students may quickly adjust to a new environment with the additional help, while American students may learn about different cultures and expand their horizons.

As suggested by past studies, the presence of knowledgeable counselors who are able to address the unique mental health concerns of international students is of great importance (Aubrey, 1991; Komiya & Eells, 2001). Hence, counseling professionals should carefully review the unique challenges discussed in the current work, before assisting foreign students of East Asian backgrounds. In practice, counselors and advisers should pay more attention to East Asian international students who present physical concerns, due to the common manifestations of emotional constraint and somaticization among this population. On campus counseling centers may also consider hiring bilingual staff to assist students who have difficulty expressing themselves in English, so that the psychological needs of foreign students (who speak English as their second language) could be properly addressed. Finally, counseling and support programs are encouraged to inform international students about the types of support services that are available on campus during orientations.

Conclusion

Without the understanding of East Asian international students' unique experiences, support programs and professional counselors will not be able to deliver efficient and effective services to assist those students with their adjustments needs. Increased knowledge about unique difficulties and stressors would promote the quality of orientation programs, counseling, academic advising and other support services in term of facilitating East Asian international students' adjustment process and promoting their psychological well-being. This synthesized systematic review has the potential to serve as a guide for researchers who plan to conduct future investigations in this field, including studies which can evaluate which steps are most effective in easing the transition from home to host country. Counseling professionals and program personnel may also benefit from the information presented in this review, so that they can provide more timely and effective services to East Asian international students, as well as international students of all backgrounds, in the future.

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