The Effects of Cross-Cultural Competence and Social Support on International Student's Psychological Adjustments: Autonomy and Environmental Mastery

A Thesis submitted to the Graduate School Valdosta State University

in partial fulfillment of requirements for the degree of

MASTER OF SCIENCE

in Psychology

in the Department of Psychology, Counseling, and Family Therapy in the Dewar College of Education and Human Services

December 2016

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ABSTRACT

This study aimed to investigate the effects of cross-cultural competence and social support on international students' psychological adjustment, specifically autonomy and environmental mastery in the host country, the United States. The participants in this study included 94 international students studying in the southeastern region of the United States. A series of standard multiple regression analysis were conducted to predict international students' autonomy and environmental mastery as measured by Ryff's Scales of Psychological Well-Being (Ryff & Keyes, 1995). The study revealed a positive relationship between international students' autonomy and cross-cultural competence as measured by the *Intercultural Competence Scale* (ICC). A positive relationship was also revealed between environmental mastery and social support as measured by the Multidimensional Scale of Perceived Social Support (MSPSS). The results, however, found negative relationship between length of residency in the host country and autonomy and environmental mastery. Relationships between psychological adjustment (i.e., autonomy and environmental mastery) and gender differences and different cultural background (individualistic and collectivistic cultures) were not significant. International students, their parents, and those who work with international students may use research findings to facilitate the psychological adjustment of international students in the host country.

Keywords: international students, cross-cultural competence, social support, host country, psychological adjustment, autonomy, environmental mastery.

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ACKNOWLEDGEMENTS

بِسْمِ اللهِ الرَّحْمنِ الرَّحِيم The name of Allah

This thesis represents not only my 15 months of work at the keyboard, but also a milestone and a truly life-changing experience for me, which would not have been possible without the support and guidance that I received from many people.

I would like to first say a very big thank you to my supervisor and my thesis chair, Dr. Katharine Susan Adams for the support and encouragement she has given me since I enrolled in the Clinical-Counseling Psychology program in 2014. Without her guidance, empathy, and constant feedback, this Master's Degree would not have been achievable.

I cannot express enough thanks to my committee members for their continued support and encouragement: Dr. Steven J Kohn, my thesis co-chair and Lee E. Grimes, my committee member. I offer my sincere appreciation for their international experiences and the learning opportunities provided by my committee.

My completion of this project could not have been accomplished without the support of my friends and relatives in Saudi Arabia, Egypt, and the United States. To my siblings, especially Nada, Mustafa, Muneer, Nisrin, Sami, Muhammed, and Saad who experienced this milestone with me; to the best cousin I have, Fatoom Marzouk who supports me and has my back, thank you for being part of my life. I would also like to say a heartfelt thank you to my parents, Amal and Fahad for always believing in me and encouraging me to follow my dreams. Dad, I know you aren't here in this world, but I know you have my back and that you are celebrating my achievement.

Finally, I would like to acknowledge myself. I have lived every single minute of these 15 months. Without the courage and determination that I developed, I would not have been able to cope and overcome these challenges and obstacles. Thanks to Allah who always gives me the strength to keep going on this extraordinary journey. I would conclude with two sayings: "O my Lord! Advance me in knowledge." (Surah Taha: 114) وَقُلُ رَبُّ زِدُني عِلْماً } and "of knowledge, it is only a little that is communicated to you" (Al-Isra: 85) {

I dedicate this thesis to my family, relatives, and friends who are from different cultural backgrounds for their constant support and unconditional love. I love you all dearly

Chapter I

INTRODUCTION

Many international students choose to study abroad in the United States and worldwide. Study abroad is defined as an academic and learning experience that takes place outside one's home country and for different periods of time. This experience may impact a student's learning and personal growth (Kent-Wilkinson, Leurer, Luimes, Ferguson, & Murray, 2015; McKeown, 2009; Twombly, Salisbury, Tumanut, & Klute, 2012) and "results in progress toward an academic degree" (Twombly, et al., 2012, p. 10). Study abroad academic experiences may be for short term (7 to 14 days), medium term (15 to 30 days), or longer term (over 30 days), all of which allow students to experience the culture and the language (Harris, Belanger, Loch, Murray, & Urbaczewski, 2011). According to the Institute of International Education (IIE, 2015), there are approximately 886,052 international students from different countries who attend colleges and universities within the United States. International students face acculturation stress as they try to adjust to the culture of the host country (Desa, Yusooff, & Abd Kadir, 2012). If students are not able to adjust, their psychological well-being and academic achievement may be negatively impacted (Jackson, Ray, & Bybell, 2013).

Depression, anxiety, physical complaints, stress, adjustment problems, and emotional exhaustion (Alzahem, van der Molen, Alaujan, Schmidt, & Zamakhshary, 2011; McGarvey, Brugh, Conroy, Clarke, & Byrne, 2015; Sümer, Poyrazli, & Grahame, 2008) are common problems that international students experience. These psychological problems derive in part from experiencing different norms and values (McGarvey et al.,

2015) and mental health problems, which negatively affect students academically and/or psychologically. In fact, the acculturation process including different norms and values, social networks including friends, and personal and emotional adjustment (McGarvey et al., 2015, p. 2) are elements that play significant roles in causing these psychological problems.

Another possible factor that impacts international students' adjustment is prejudicial attitudes, stereotypes, and discrimination (Dinh, Holmberg, Ho, & Haynes, 2014; Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013). For instance, international students who are perceived as a minority group - Asians, Africans, Indians, Latinos, or Arabs - experience more adjustment issues than domestic students and European international students because of discrimination and stereotypes (Tummala-Narra & Claudius, 2013). These attitudes produce negative emotions and then limited social interactions (McGill, Way, & Hughes, 2012). Dinh et al. (2014) found that prejudicial attitudes are significantly correlated to negative well-being, "particularly in the area of depression, social support, and general physical health" (p. 63). Therefore, this study aimed to investigate the effects of cross-cultural competence and social support on international students' psychological adjustment (i.e., autonomy and environmental mastery) in the host country, the United States.

Chapter II

LITERATURE REVIEW

Cross Cultural Competence

Cross-cultural, multicultural, and intercultural competence have been used interchangeably as indicators of cultural adjustment. Various definitions of cross-cultural competence have been proposed in the literature, but it is commonly conceptualized as a demonstration of knowledge, skills, and behaviors to function in diverse contexts. For example, Cross, Bazron, Dennis, and Isaacs (1989) defined cultural competence as "the set of congruent behaviors, attitudes, skills, policies, and procedures" that help an individual to interact effectively within a multicultural context (p. 13). Sinicrope, Norris, and Watanabe (2007) also defined cross-cultural competence as "a complex of abilities needed to perform effectively and appropriately when interacting with others who were linguistically and culturally different from oneself" (p. 1). Finally, Leung, Ang, and Tan (2014) defined intercultural competence as "an individual's effectiveness in drawing upon a set of knowledge, skills, and personal attributes in order to work successfully with people from different national cultural backgrounds at home or abroad" (p. 490).

Cross-cultural competence may develop through various early learning experiences including parents' cross-cultural attitudes, travel experiences, and early intercultural friendships. For example, parents are the first teachers for their children, and many children learn to mimic their parents' reactions and hold similar attitudes.

Gratz (2006) illustrated that "children's brains are like sponges the first couple years of their lives and they absorb everything surrounding them" (p. 3). The lessons that children

receive from their parents at an early age may impact their lives and their future (Gratz, 2006). Parental attitudes are a significant influence in children's cross-cultural competence as children are likely to mimic their parents' racial attitudes and reactions (Milner, 1983).

Children may learn prejudicial attitudes from their parents and the language they use. These prejudices could be related to a particular nationality, culture, gender, or skin color (Koppelman, 2013, p. 27). Additionally, some parents set limits on their children's social networks and interactions with other people from different races, ethnicities, and cultural backgrounds (Koppelman, 2013). Finally, if one or both parents have unpleasant experiences with a person from a particular cultural background and then become cautious interacting with them again, children may interact the same way their parents do (Tummala-Narra & Claudius, 2013). Negative attitudes fostered by parents, learned by children, and retained by international students may have significant impact on long-term ways of thinking and limit social interactions within the host country.

Conversely, by acknowledging unique differences between dominant and minority cultures and teaching children different customs, values, and norms, parents may promote cross-cultural competence in their children (Hughes & Chen, 1997).

Parents' positive cross-cultural experiences and attitudes could help their children to be prepared for studying abroad. Also, they help their children to be aware and cope with stereotypes, prejudices, and cultural privileges (Hughes & Chen, 1997).

Additionally, cross-cultural competence is promoted by early travel experiences and direct exposure (Briones, Tabernero, Tramontano, Caprara, & Arenas, 2009). While traveling, individuals may practice real intercultural experiences in a host community, including norms, values, beliefs, traditional food, habits, and events (Ingraham &

Peterson, 2004; Ahn & Janke, 2011; Peterson, Milstein, Chen, & Nakazawa, 2011). Secondly, travel provides opportunities to practice good communication skills with locals and is "one of the most important predictive factors for successful adaptation to a new culture" (Briones et al., 2009, p. 18). Finally, travel provides knowledge of different standards of living through the comparison of the individual's country and the visited country (Ingraham & Peterson, 2004). Early travel experiences may be a significant factor that improves a student's acculturation in the host country (Kent-Wilkinson et al., 2015).

Finally, early intercultural friendships likely contribute to cross-cultural competence by providing access to explore another culture's norms, traditions, and values (Rude & Herda, 2010). Intercultural friendships are defined as close interactions among individuals from different cultures, and these cultural differences bring unique rewards and challenges in these relationships (DeBruin-Parecki & Klein, 2003; Sias et al., 2008). Making friends from different countries and cultures has the potential to reduce prejudices and stereotypes. Individuals with intercultural friendships are able to increase their intercultural insights and openness to diverse settings (Severino, Messina, & Llorent, 2014) and adapt their intercultural communication. Children who have only intracultural friends may face challenges when they study abroad due to insufficient social skills and knowledge (Pham & Saltmarsh, 2013).

Overall, many definitions of cross-cultural competence have been proposed and many contributing factors to the development of cross-cultural competence are represented in the literature. Similar to other research, the term cross-culture competence will refer to a combination of knowledge, attitudes, skills, and behaviors that international students acquire prior to studying abroad. As such, the *Intercultural*

Competence Scale (Fantini & Tirmizi, 2006), which utilizes four subscales, including knowledge, attitudes, skills, and awareness, will be used to measure international student participants' cross-cultural competence in the host country.

Social Support

Another influential factor to the adjustment of international students in the host country includes the level of social support perceived to be available while being in the host country (Desa et al., 2012; Pham & Saltmarsh, 2013). Social support refers to "the nature of the interactions occurring in social relationships, especially how these are evaluated by the person as their supportiveness" (Mak & Kim, 2011, p. 60). Pham and Saltmarsh (2013) portrayed friendships and informal relationships as the "social glue, binding individuals into their social structure" (p. 133).

Research indicated that having social support in the host country is important to the adjustment of international students for many reasons (Jackson et al., 2013; Mak & Kim, 2011). First, there is a significant correlation between social support and psychological problems. International students with positive social support are less likely to report anxiety/depression symptoms and stress, and this support helps them to adjust better to the cultural differences (Sümer, Poyrazli, & Grahame, 2008; Jackson et al., 2013).

Since international students leave their family and friends to study in a foreign country, they do not have social networks. Host friendships provide support and social opportunities that assist international students in overcoming difficulties associated with a new environment or unknown situations. These host friends help international students develop cultural skills and find support in stressful situations (Hirai, Frazier, & Syed,

2015). Poyrazli (2015) indicated that friends are a priority source of support for international students who need psychological help when they feel alone and homesick.

Finally, social supports may help to alleviate the consequences of perceived discrimination in the host country, which may cause international students to be at risk of depression (Wei, Ku, Russell, Mallinckrodt, & Liao, 2008). If international students are welcomed and included by hosts, they will likely feel comfortable in the new environment and utilize their social support (Hirai et al., 2015, p. 450). However, those who experience more stress adjusting to the new culture may utilize their social supports less (Jackson et al., 2013, p. 24).

International students receive various types of social supports in the host country. International students may have formal or formal social supports (Goodwin, Cost, & Adonu, 2004). Ibañez et al. (2003) defined formal social support as individuals who are from outside one's networks including professors, faculty, teachers, government, organization, or graduate English as Second language (ESL) offices. Conversely, informal social support refers to individuals who are from within one's environment or social networks including family members, spouses, and friends (Ibañez et al., 2003).

Gurung (2010) noted individuals may benefit from social support if "the type of support a person needs matches the type of social provided" (p. 164). There are many forms of social support that may be provided: emotional, esteem, instrumental, informational, and tangible support and social integration (Gurung, 2010; Tang, 2008). For instance, if an international student needs informational support (i.e., feedback or advice) regarding his or her school, professors, ESL teachers, and faculty are the best social supports to address such concerns. On the other hand, if an international student needs emotional support (i.e., empathy or caring) or instrumental support (i.e., cash or

borrow a thing), friends and family members would benefit him or her to address the need.

Some literature focused on language proficiency limitations as a barrier of social adjustment to the host country (Hirai et al., 2015). Language has many advantages, especially for those who speak a second language. Being proficient in the language of the host country helps individuals to communicate with other people, facilities their interactions, and promotes social support. It also helps to gain knowledge about cultural values, norms, and practices, especially when interacting with people from the host country.

Another aspect of social support involves international students themselves and the possibility of coming from another cultural context from the host country. Sawir, Marginson, Deumert, Nyland, and Ramia (2007) noted that characteristics of individualism and collectivism may cause some adjustment difficulties and limited social support. For instance, an international student from a collectivist culture studying in an individualistic culture may get confused and exhausted trying to conceptualize how to live and communicate in that particular culture. This experience will bring "change and challenge" (p. 1037) to international students' identity (Osborne, 2012).

Given the important role of social support in the cultural adjustment of international students, the *Multidimensional Scale of Perceived Social Support* (Zimet, Dahlem, Zimet, & Farely, 1988) will be used in the current study to measure international students' perceptions of important sources of social support (i.e., family, friends, or other significance) in the host country.

Psychological Well-being and Adjustment

Psychological well-being is a multifaceted construct with diverse indicators of psychological well-being represented in the literature. For instance, Li, Wang, and Xiao (2014) identified psychological well-being as "the combination of feeling good and functioning effectively" (p. 303). Some research has used level of depression or depression symptoms combined with self-esteem as indicators of psychological well-being (Dinh et al., 2014; McGill et al., 2012; Greenleaf, Petrie, & Martin, 2010). Yet, other researchers have used religion, depression symptoms, and self-esteem as indicators of psychological well-being (Davis III & Kiang, 2015). Topham and Moller (2011) also assessed psychological well-being as "personal concerns, self-esteem and social anxiety" (p. 196).

The psychological concepts of adjustment and well-being are often presented as interrelated in literature, suggesting that individuals that are well adjusted report experiencing a sense of well-being in comparison to individuals with lower levels of adjustment (Ordonez, Lima-Silva, & Cachioni, 2011). The interest in studying the relationship between these concepts has led to multiple measures of psychological well-being. For example, Ryff's Scales of Psychological Well-Being (Ryff & Keyes, 1995) include psychological adjustment predictors. Psychological well-being focuses on the different experiences and challenges that are encountered at different developmental stages (Ryff, 1989) and includes the ability to cope with environmental changes (Garcia, Al Nima, & Kjell, 2014).

Ryff's Scales of Psychological Well-Being (Ryff & Keyes, 1995) take a multifaceted approach to measuring psychological well-being. Ryff conceptualized psychological well-being as a set of characteristics compromised of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life,

and self-acceptance (Bhullar, Hine, & Phillips, 2014). Ryff did not focus on psychological problems as indicators, but described well-being in terms of social, psychological, subjective and behavioral dimensions.

Ryff's scales measure various facets of psychological well-being, but for the purposes of this study, psychological well-being will focus exclusively on autonomy and environment mastery among international students. These two facets are critical for the adjustment of international students in the host country and ultimately contribute to a student's psychological well-being.

Autonomy

Autonomy has been highlighted extensively in intercultural research fields assessing different aspects of human functioning, including but not limited to parenting styles, psychopathology, psychological well-being, and motivation (Chirkov, 2007). Autonomy is derived from the Greek term *autos*, meaning self and *nomos*, meaning rule, governance, or law (Agich, 1994) and was an ancient moral, political and ethical concept that focused on an individuals' behaviors, emotions, and attitudes, especially psychological autonomy (Chirkov, 2014). It is one of the essential psychological needs, is considered "a central characteristic of healthy functioning" (Ryan & Deci, 2006, p. 1565), and a significant factor of one's well-being (Kasser & Ryan, 1999). Chirkov (2014) suggested that if an individual's development of autonomy is not fostered or encouraged, then his or her development and functioning may be hindered.

Several theories offer explanation of the relationships between autonomy and behavior. From an informational perspective, autonomy is defined as an individual utilizing environmental information in order to modify one's own behavior in order to adapt and function better to the internal and environmental changes. The social cognitive

perspective of autonomy suggests that individuals' actions are not related to their environment, but more so on one's self-efficacy (Ryan & Deci, 2006). Moreover, Kühler and Jelinek (2010) defined autonomy, specifically personal autonomy, as focusing on one's personal values, motivations, and moral standings that govern the individual's behavior free from the influence of others. Kasser and Ryan (1999) suggested that autonomy is better defined by an individual's volition or understanding that behavior belongs solely to oneself, versus the more common understanding of autonomy meaning independence. Finally, Lynch (2013) built upon Kasser and Ryan's (1999) views, suggesting that autonomy relates to an individual's experience of choice and the cognitive reflection that results in behavior. Lynch (2013) suggested that one's personal beliefs would be reflected by his or her behavior. Autonomy is not affected by external influences, but how individuals choose to react or cope with ever-present external influences (Ryan & Deci, 2006).

Multiple types of autonomy have been studied across disciplines. Psychological autonomy has been identified as a mode of functioning that includes personal life goals, values, morals and a structure of personal standards that guide the individual in attaining those goals (Chirkov, 2014, pp. 29-30). An individual's personal goals, values, morals and rules are essential components of autonomous functioning. Two other types of autonomy have been identified by Chirkov (2014): personal and motivational. Personal Autonomy is a combination of self-directedness and self-government which is similar to Ryff's (1989) definition of autonomy. Motivational Autonomy refers to particular actions and reactions of a person's life, which is linked to academic, career, medical health, or daily life behavior or activities (Chirkov, 2014). Ryff and Keyes (1995) include personal autonomy in their psychological well-being subscale. This scale is

going to be used in this study to evaluate an international student's psychological adjustment in his or her host country.

Influential Factors on Autonomy. Previous research has investigated internal and external factors that influence autonomy. These factors may produce different autonomous reactions to the same situation (Ryan & Deci, 2006). The first of these internal factors is general mood, emotion, and attitudes. Kasser and Ryan (1999) summarized that depression, self-esteem, life satisfaction, meaning in life, general health, and psychological adjustment are indicators of one's autonomy. An individual's autonomy can also be influenced by more stable and long term factors such as personality traits and developmental stages. "Intrinsic motivation, creativity, self-motivation, [selfesteem], confidence, interest, and vitality" (Kasser & Ryan, 1999, p. 937) have been identified as personality traits that underlie autonomy. Personality traits continue to develop throughout an individuals' life span. Therefore, developmental changes including age may be a significant factor in reporting autonomy. Ryff (1989) found high levels of autonomy among middle-aged participants. Similarly, Garcia and Siddiqui (2009) further confirmed Ryff's (1989) findings, and concluded that autonomy increases with age, most notably between early adulthood (20-25 years) to midlife.

Despite the internal developmental influence on autonomy, several external factors may significantly impact an individual's autonomy. For example, education, religious beliefs, and socioeconomic status are all important to autonomy because of their influence on personal development. Education is not limited to school environment, but it also includes the education that is provided by parents (Kühler & Jelinek, 2010). Parents not only teach culture norms and values, but they also foster religious beliefs. Chirkov (2014) noted that the religious beliefs exhibited and taught by parents may

influence the critical thinking abilities of their children. Additionally, socioeconomic status significantly impacts many areas of an individual's well-being, including one's autonomy (Underlid, 2012). Lack of money and poverty may negatively impact autonomy, whereas privileged individuals may have higher levels of autonomy.

One final external factor impacting autonomy is cultural backgrounds. Individuals' behavior can be influenced/shaped by their cultures (Ryan & Deci, 2006). Different culture types such as individualism (e.g., Western cultures) or collectivism (e.g., Eastern cultures) are viewed as a significant factor in understanding one's behaviors. Individualistic and collectivistic values and norms exist in various groups, societies, and/or countries (Chirkov, 2014). Most individualistic societies encourage independence and self-government, however, collectivistic societies discourage the practice of autonomous behaviors and actions, valuing acting as part of a whole society more than acting as an individual (Chirkov, 2007). McAuliffe (2013) noted that in individualistic cultures (e.g., North America, Europe), autonomy is highly valued, and individuals have their rights, needs, and independence regardless of parental or marital influences (McAuliffe, 2013). However, collectivistic cultures (e.g., South Asia, Latin America), place more value on heritage, family, and social networks. These cultures also heavily value obedience to parents, husbands, and religious figures whose authority is significantly influential in decision making (McAuliffe, 2013).

The struggle of autonomous individuals being in different environmental settings is well presented in the literature (Chirkov, 2014). Several studies established the correlation between autonomy and diverse cultures (Ryan & Deci, 2006). Within these diverse cultures, individuals engage in different cultural experiences which may engender a sense of freedom by expanding upon the norms that typically govern one's behavior

(Ryff, 1989). Although cultural experiences impact one's autonomy, Chirkov (2014) indicated autonomy, specifically psychological autonomy, has socio-cultural origins and works the same regardless of one's particular culture, goals, motivations, emotions, and social demands.

Some international students use their social support from their home country to strengthen their autonomy. Several studies discovered the importance of social support in developing autonomy indicating that social support and emotional reliance are correlated. Lynch (2013) defined emotional reliance as the willingness and readiness to turn to one's relationships for emotional or autonomous support in difficult times and/or emotional dysregulation moments. Facing difficult times and situations may lead international students to communicate with their social support more so than normal. However, a distinction must be identified between whether individuals go back to their social support in order to reinforce their autonomy or to return to their comfort zone without addressing their difficulties. It is possible that there may be a gray area between supporting autonomy and attachment issues, considering that most individuals feel a sense of connectedness to people who support their autonomy (Ryan & Deci, 2006). Conversely, lack of social support may result in low levels of self-esteem, motivation, and other psychological indicators (Kasser & Ryan, 1999). Thus, some research suggested that social support, especially parents and family may enhance their emotional reliance, psychological adjustment and well-being (Lynch, 2013).

Environmental Mastery

Another criterion variable that may reflect one's psychological adjustment and well-being is environmental mastery. Environmental mastery is one's ability to effectively navigate and manage one's life and environment (Perron, 2006). The term

environmental mastery was first identified in the research of Phillips (1961), which introduced five stages of environmental mastery: isolation, dependency, autonomy, cooperation and independence (Perron, 2006). Ryff further elaborated on this concept of environmental mastery by identifying its significance as a psychological resource during her work on the Psychological Well-Being Inventory (Perron, 2006). In her research, Ryff (1998), and Ryff and Keyes (1995) concluded that environmental mastery is one's ability to either choose or create an environment that best fits his or her psychological state. This ability to choose or create an environment that best supports one's psychological condition, is reflected of one's autonomy and provides one with a sense of control regarding the world he or she is experiencing (Wang, Nyutu, Tran, & Spears, 2015).

Environmental mastery may reveal aspects of an individual's adaptive abilities or skills. For instance, high levels of environmental mastery indicate the ability and competency in handling external challenges; however, individuals with low levels of environmental mastery feel a sense of inability to control situations or circumstances.

These experiences of feeling out of control prevent an individual from making small positive changes within his or her current environment (Wang et al., 2015).

Environmental mastery is predictive of several important variables. Wang et al. (2015) used environmental mastery to predict psychological distress (depression and anxiety) among older adults. They found an inverse relationship between these variables; the more psychological distress an individual reported experiencing, the lower their level of environmental mastery. Research has also explored the relationship between environmental mastery and psychological well-being, confidence and feelings of inadequacy (Perron, 2006).

Influential Factors on Environmental Mastery. Various internal and external factors are associated with developing environmental mastery (Ryff, 1989). One such internal factor is developmental lifespan including age. As one matures, the ability to manipulate and control complex environments begins to develop (Ryff & Keyes, 1995). A higher level of environmental mastery was notably reported among middle-aged participants (Ryff & Keyes, 1995).

Similar to autonomy, both temporary states, like mood, and more long term traits such as personality may be considered internal factors that impacts environmental mastery. An individual's emotions can influence the way he or she may perceive and experience the environment. A negative perception of a situation may result in one's avoidance of such a situation. The disinterest in adapting to a situation could potentially result to lower levels of environmental mastery. However, individual's emotions and personality can also have a positive influence on how he or she perceives the environment. Individuals who are more outgoing or extroverted, are more likely to interact with their environment, resulting in a more positive experience (Ziskis, 2010). This positive experience may result in higher levels of life satisfaction and promote environmental mastery (Perron, 2006).

Personality traits including extraversion, agreeableness, conscientiousness, neuroticism, and extraversion significantly impact international students' psychological adjustment and sociocultural adjustment (Poyrazli, Thukral, & Duru, 2010). Poyrazli et al. (2010) and Duru and Poyrazli (2007) found that neuroticism was negatively correlated with acculturative stress and openness to experiences among international students' participants. On the other hand, resiliency traits have a positive impact on international students' adjustment and coping with unknowns/stressful situations (Poyrazli et al.,

2010). In the same study, they confirmed that individuals with high levels of extroversion have more cross-cultural friendships (Poyrazli et al., 2010). Therefore, international students' personality traits may help them to adjust to the cultural differences and cope with the host country and acculturative stress.

Early developmental experiences such as education, traveling, and language development significantly influence the ability to master the environment one encounters. Experiences such as travelling may boost children's environmental mastery by equipping children with perceptual, cognitive, social/communication skills. These experiences help to further a child's understanding and skills. Formal education provides knowledge to help increase their awareness and develop their abilities and skills. These early educational experiences provide stimulating and varying environments/situations that encourage the development of children's communication and problem-solving skills. Ryff (1989) pointed out that participating physically and mentally in different activities outside one's own environment has effects on one's level of environmental mastery and have advanced functioning in the world.

These experiences also result in the individual fostering social contacts and relationships. For individuals who travel abroad and experience other cultures, communication skills are a vital part of how they perceive their experience abroad. Creating and maintaining social supports in the host country is equally important to adapting to a new environment. Developing relationships with people in the host country helps international students to successfully adjust to the new environment, experience less acculturative stress, and avoid negative psychological adjustment issues (Bai, 2016). These relationships also produce tolerance and empathy, which are important characteristics in adapting to the new environment (Garcia et al., 2014).

Additionally, developing social networks encourages intercultural communication and facilitates the acculturation process for international students within the host country. Chirkov (2014) noted that "social interactions are the medium of human development, which constitutes the vehicle that makes enculturation and socialization possible." (p. 36). Previous research found that international students learn about the host culture, norms, and expectations and show low levels of acculturative stress through their social support and networks in the host country (Sullivan & Kashubeck-West, 2015).

Furthermore, Kim (1992) found that intercultural communication competence promotes environmental mastery, which comes from "the individual's capacity to suspend or modify some of the old cultural ways to manage the dynamics of cultural difference/unfamiliarity, intergroup posture, and the accompanying stress" (p. 377).

A final factor that may influence one's environmental mastery is cross-cultural adaptation, which includes many variables such communication competence, social communication, environment predisposition, and intercultural transformation (Sinicrope et al., 2007). Sinicrope et al. (2007) suggested that Kim's (1993) model of cross-cultural adaption is a process that results in the individual's constant interaction and integration of the environment/culture. Williams (2005) indicated that an individual's ability to adapt to a variety of environments will have an easier time adjusting to virtually any cultures idiosyncrasies; and levels of cross-cultural adaptability and intercultural sensitivity are two indicators of one's strengths and weaknesses in cross-cultural interactions. Both cross-cultural adaptability and intercultural sensitivity could predict one's effective intercultural communication skills and levels of environmental mastery (Williams, 2005). Therefore, adapting to the new environment could be challenging due to the acculturation process. Sinicrope et al. (2007) noted that individuals who are trying to adapt to the new

culture may suffer from an acculturation phase in the host country between the separation and assimilation phases. These phases may produce a cycle pattern of stress-adaption before completely adapting to the dominant environment.

Overall, internal and/or external factors may influence the development of environmental mastery in a new environment. These factors may hinder or enhance the ability to regulate one's emotional and psychological distress, ability to create new acceptable social behavior and rewards, developing problem-solving strategies, and overcoming any confusion and misunderstandings to interact positively with the new environment (Williams, 2005).

In light of the literature reviewed, including the importance of cross-cultural competence, social support, autonomy, and environmental mastery in international student adjustment in the host country, the primary goal of this research study was to answer the following research questions:

- a) What is the relationship between cross-cultural competence, social support and autonomy?
- b) What is the relationship between cross-cultural competence, social support and environmental mastery?

Chapter III

METHOD

Participants

The research sample included 167 international students who were studying English as a second language (ESL) as graduates and undergraduates at colleges and universities in the United States. Of these participants, 71 were excluded through list wise deletion in the analysis of environmental mastery, and 96 were included in the analysis. In the analysis of autonomy, 73 were excluded due to missing data and 94 were retained in the analysis. There was a substantial number of participants that were dropped from the analyses because of missing data. Missing data appears to be random and no systematic patterns among missing values were identified. Efforts were made to achieve statistical power and over-sample due to concerns related to missing data. For both samples, age ranged from 18 to 38 years. The mean age of the original sample was M = 24.68 (SD = 4.27) as compared to M = 25.15 (SD = 4.24) of the retained sample. Age data was missing for 11 participants. Additional demographic characteristics of participants removed from the sample are presented in Table 1 (see Appendix A).

Of the 94 participants retained in the sample, the international students were from different backgrounds; 21.62% of the participants were from India (N = 23; females: n = 9, males: n = 14), 18.8% of them were from China (N = 20; females: n = 11, males: n = 9), 13.16% of the them were from Saudi Arabia (N = 14; females: n = 7, males: n = 7), 4.7% of the participants were from The Republic of Korea (N = 5; females: n = 2, males: n = 3). Participants were from Turkey (N = 3 males) and Iran (N = 3; females: n = 1,

males: n = 2) each accounted for 2.82% of the sample. Participants were from Germany (N = 2; females: n = 1, males: n = 1), Italy (N = 2 males), Nepal (N = 2 males), Mexico (N = 2 females), and Taiwan (N = 2 males) each accounted for 1.88% of the sample. Finally, the remaining participants, consisting of .94% of the sample were from the following countries respectively: Japan (N = 1 female), Kuwait (N = 1 male), Columbia (N = 1 female), United Kingdom (N = 1 female), Ecuador (N = 1 male), Nigeria (N = 1 male), Chile (N = 1 female), Netherlands (N = 1 female), Belize (N = 1 female), Egypt (N = 1 male), Bangladesh (N = 1 male), Honduras (N = 1 female), Brazil (N = 1 female), and Canada (N = 1 female). 1.88% (N = 2) of the participants reported "rather not to say."

Additionally, 56.40% (N = 53) identified as being Asian/ Pacific Islander, 17.00%(N = 16) of participants identified as being Arab, 8.50% (N = 8) identified as being European American/White, 7.40% (N = 7) identified as being Latino, 7.40% (N = 7) identified as "other," 1.10% (N = 1) identified as being African American/Black, 1.10% (N = 1) as being multicultural, and 1.10% (N = 1) "preferred not to say." When asked about their parents race and/or ethnicity, 95.70% (N = 90) indicated that their parents were from the same race and/or ethnicity, and 4.30% (N = 4) indicated that their parents were from different race and/or ethnicity. When asked about their gender identification, 54.30% (N = 51) of participants identified as being male, and 45.70% (N = 43) identified as being female. Regarding marital status, 76.60% (N = 72) of participants identified as being single, 21.30% (N = 20) identified as being married, 1.10% (N = 1) identified as being widowed, and 1.10% (N = 1) identified as "rather not say." When asked about their occupational statues, 81.90% (N = 77) of the participants identified as a student, 12.80% (N = 12) identified as being employed, 3.2% (N = 3) identified as "other," and 2.10% (N=2) identified as unemployed. When asked about their level of education,

35.10% (N = 33) indicated that they had a bachelor's degree, 34.00% (N = 32) indicated that they had a master's degree, 22.30% (N = 21) indicated that they had a doctoral degree, 6.40% (N = 6) indicated that they were high school graduate, and 2.10% (N = 2) indicated their level of education as "other."

In terms of cultural backgrounds, 33.00% (N = 31) of the participants were from Northeast Asia including (China, North Koreas, South Korea, Indonesia, Nepal, and Japan), 24.50% (N = 23) of the participants were from South Asia - India, 23.40% (N = 22) of the participants were from the Middle East, 11.70% (N = 11) of the participants were from South America, 3.20% (N = 3) of the participants were form Europe, 1.1% (N = 1) of the participants were from the following cultures respectively: North America and Africa, and 2.10% (N = 2) of the participants were missing. Moreover, 90.40% (N = 85) of the participants indicated that English was not their first language, and 9.60% (N = 9) indicated that English was their first language. When asked being an international student was their first experiences, 79.80% (N = 75) reported yes, 20.20% (N = 19) reported no. When asked how long they had been in the host country, 69.10% (N = 65) reported more than 2 years, 10.60% (N = 10) reported more than 1 year, 8.50% (N = 8) reported between 10 to 12 months, 3.20% (N = 3) reported between 7 to 9 months, 3.20% (N = 3) 4 to 6 months, 3.20% (N = 3) reported 1 to 3 months, and 2.10% (N = 2) reported "rather not to say."

When asked if they had been to another country besides their home and host countries, 67.00% (N = 63) reported yes, and 33.00% (N = 31) reported no. When asked if they had cross-cultural friendships before their study abroad experience, 56.40% (N = 53) reported no, 42.60% (N = 40) reported yes, and 1.10% (N = 1) reported "Rather not say." Finally, 85.10% (N = 80) of the participants indicated they made cross-cultural

friendships upon their arrival to the host country, 11.70% (N = 11) indicated that they made no cross-cultural friendships, 2.10% (N = 2) indicated "rather not say," and 1.10% (N = 1) was missing.

Procedure

After Institutional Review Board (IRB) approval (see Appendix B), international students, age 18 and older, were recruited with the assistance of international student program offices at selected postsecondary institutions and students organizations within the United States (see Appendices C & D). The researcher contacted program coordinators to request permission to send information about the research study (see Appendix E) and request participation from students through email or social media (e.g., Facebook and Instagram) (see Appendices F & G). Family and friends of the researcher who were international students were invited to participate in the study by the researcher's Facebook page (see Appendices F & G). Participation was completely voluntary. The goal of the research was to analyze aggregate (group) data. Therefore, no identifying information was collected, and participation remained anonymous. International students that agreed to participate accessed the online survey in Qualtrics with the provided URL

(https://valdosta.co1.qualtrics.com/SE/?SID=SV_1OeDDI1elcfWUId).

In the Qualtrics survey, participants responded to the online survey and submitted the completed survey through Qualtrics. Participants completed the online survey in approximately 25-30 minutes. International students who learned about the research opportunity and emailed the researcher were entered into a drawing for a chance to win a \$50 Amazon gift card. This gift card was a compensation from the researcher and was given to one of the participants. There was no way to associate students' name or email

address with Qualtrics responses. The researcher ensured that participation was anonymous. Participants were allowed to email the researcher if they had any question regarding to the research study.

In obtaining consent, the researcher provided an informed consent statement at the beginning of the online survey. The informed consent explained the purpose of the study, the procedures, and the potential benefits and possible risks of participation to student volunteers. The voluntary nature of the study was explained to participants, international students were informed that they could choose to not answer research questions or may discontinue participation at any time. Participants were permitted to email the researcher if they had any question or concern regarding the research study or confidentiality concerns.

Measures

An online survey included a demographic questionnaire (see Appendix H), Intercultural Competence Scale (ICC) (Fantini & Tirmizi, 2006) (see Appendix I), The Ryff Scales of Psychological Well-Being (Ryff & Keyes, 1995) (see Appendix J), and Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet at el., 1988) (see Appendix K). The demographic questionnaire was a self-report measure designed to obtain important information relevant to the study including age, gender, marital and occupational statutes, level of education, ethnicity, nationality and home country, length of stay at the host country, number of visited countries, having friend from different cultural backgrounds/countries, and whether or not English is their second language. No potentially identifiable information was collected as part of the demographic questionnaire (see Appendix H).

Intercultural Competence Scale (ICC) (Fantini & Tirmizi, 2006). ICC scale encompasses four subscales: knowledge, attitudes, skills, and awareness (see Appendix H). It has a total of 43 items; the knowledge subscale has 11 items divided into two clusters. Czerwionka, Artamonova, and Barbosa (2014) defined cultural knowledge as the knowledge of the differences between one's culture and others' cultures, also the knowledge of different groups of people, norms, practices, and cultural communication interactions. The attitude subscale has 10 items. It encompasses "a state [of c]uriosity and openness, of readiness to suspend disbelief about other cultures and belief about one's own" (Czerwionka et al., 2014, p. 47). The skill subscale has eight items. Cultural skill is encompasses as "the skills necessary to effectively assimilate and interpret cultural data" (Carrillo, n.d., p. 3). This includes communication skills (listening and observing) and cognitive skills (analyzing, evaluating and relating)." The awareness subscale has 14 items. It refers to "the ability to make a reflexive evaluation on one's own and counterpart's cultures; it prevents individuals from blindly accepting cultural differences without rejecting the negative elements and enables us to become a creative interactant" (Dai & Chen, 2014, p. 106). The four categories theoretically reflect the four components of cross-cultural experiences: knowledge, attitude, skill, and awareness. Respondents rate statements on a Likert type scale from 0 (no competence) to 5 (strongly competence). The reliability of ICC scale was .89. The reliability of ICC dimensions are knowledge subscale: cluster 1 = .87 and cluster 2 = .80, attitude subscale = .96, skills subscale = .94, and awareness subscale = .97 (Fantini & Tirmizi, 2006). In the current study, using Listwise deletion, the ICC scale consisted of 45 items appeared to have excellent internal consistency, $\alpha = .96$. Participant ratings are summed across subscales to calculate a total score ranging from 0 to 215. A score of zero indicate that participants

lack cross-cultural competent and do cannot perform effectively in intercultural contexts.

On the other hand, a score of 215 indicates that participant is very competence to function in cross-cultural contexts.

The Ryff Scales of Psychological Well-Being (Ryff & Keyes, 1995) measure the psychological well-being of international students as they adjust to their host country/culture (see Appendix I). There are six subscales in this measure. However, the focus of this study would be on two subscales: Autonomy subscale (9 items) and Environmental Mastery subscale (9 items). These items come from two selected subscales of the Scales of Psychological Well-Being (Ryff & Keyes 1995). The Autonomy subscale measures the international students' independence and their abilities to cope with social pressure; for example, "My decisions are not usually influenced by what everyone else is doing." The Environmental Mastery subscale measures students' competences in living in the current environment; for example, "I do not fit very well the people in the community around me." Participants answer each question on a Likert scale from 1 (Strongly disagree) to 6 (Strongly agree). Participant rating are summed for each subscale from 9 to 54. A score of 9 on autonomy subscale indicate that participants have concerns related to "the expectation and evaluation of others; relies on judgments of others to make important decisions; confirms to social pressure to think and act in a certain ways" (Ryff, 1989, p. 1072). However, a score of 54 on autonomy subscale indicate that participants are "self-determined and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards" (Ryff, 1989, p. 1072). Moreover, a score of 9 on environmental mastery subscale indicate that participants have "difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding

opportunities; lacks sense of control over external world" (Ryff, 1989, p. 1072). However, a score of 54 on environmental mastery subscale indicate that participants have "a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to hose or create contexts suitable to personal needs and values" (Ryff, 1989, p. 1072). Participants who have high score on non-reserved items showed autonomy and responsibilities coping with social pressure, a mastery of his or her life, and a good relationships with others. On reserved items, participants who scored high on these subscales showed negative outcomes on autonomy, environmental mastery, and positive relationships with others. There is high internal consistency and test-retest reliability of the two subscales items: Autonomy scale (.86, .88) and Environmental Mastery scale is (.90, .81), respectively (Seifert, 2005). In the current study, using Listwise deletion, *The* Ryff Scales of Psychological Well-Being scale consisted of 18 items appeared to have good internal consistency, $\alpha = .83$; two subscales were used: the Cronbach's alpha coefficient of autonomy and environmental mastery subscales were found to be acceptable (9 items; $\alpha = .74$ and 9 items; $\alpha = .73$), respectively.

Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) measures participants' perceptions of their social support from three different sources: family, friends, and significant others while being at the host country (see Appendix J). This scale has 12 items divided into three categories. Participations rate each item on a Likert scale from 1 (very strongly disagree) to 7 (very strongly disagree). Participant ratings are summed to calculate a score rating from 12 to 84, with higher score representing higher serviced social support and lower score representing lower perceived social support. For example, one of the family social support item is "My family really

tries to help me." An item from friend social support source is "I can talk about my problems with my friend." Finally, "There is a special person in my life who cares about my feelings" is an item from significant other social support source. MSPSS scale has very good reliability. Coefficient alpha levels ranged from .84 to .92 as a whole scale (Zimet, Powell, Farley, Werkman, & Berkoff, 1990). For family subscale, the coefficient alpha value ranged from .81 to .90, for Friend subscale, its value ranged from .90 to .94; for Significant other subscale, its value ranged from .83 to .98 (Zimet et al., 1990). In the current study, using Listwise deletion, MSPSS scale consisted of 12 items appeared to have good reliability, $\alpha = .87$.

Analyses

A series of standard multiple regression analysis were conducted to predict international students' autonomy and environmental mastery in the host country, the United States, as measured by the *Ryff Scales of Psychological Well-Being* (Ryff &Keyes, (1995). Predictor variables included in the model were early cross-cultural competence as measured by the *Intercultural Competence Scale* (ICC) and their level of social support in the host country as measured by the *Multidimensional Scale of Perceived Social Support* (MSPSS).

Chapter IV

RESULTS

Preliminary analysis determined the proportion of missing data in the set was high but random. Analysis of data using mean substitution for missing data slightly increased the sample size but did not significantly impact the results as compared to analysis of data using Listwise deletion. Therefore, to maintain the integrity of original data, participants with missing values on the variables of interest were not included in the analysis of data. Additionally, a case analysis identified one problematic outlier, which was not included in the data set. Assessment of violations of assumptions revealed that no serious violation of correct fit, constant variance, and normality assumptions were identified. Since none of the typical sources of violations of the independence assumption were present in this study, there is no reason to suspect violation of this assumption.

Predicting Autonomy

The model predicting participants' autonomy in the host country by early cross-cultural competence, level of social support, cultural differences, gender, and length of residency in the host country was significant, $R^2 = .19$, F(5,86) = 4.00, p = .003. The effects of individual predictor variables on autonomy are summarized in Table 2. Of the five predictor variables, only cross-cultural competence as measured by ICC was found to be significant ($\beta = 0.21$), t = 2.12, p = .037 and length of residency in the host country ($\beta = -0.28$), t = -2.89, t = -2.89,

students' autonomy in the host country. Conversely, increased length of residency was associated with decreased international students' autonomy and vice versa.

Predicting Environmental Mastery

The model predicting international students' environmental mastery in the host country by cross-cultural competence, level of social support, cultural differences, gender, and length of residency in the host country was significant, $R^2 = .25$, F(5, 88) = 5.71, p < .001. The effects of individual predictor variables on environmental mastery are summarized in Table 3. Of the five predictor variables, only social support as measured by the MSPSS ($\beta = 0.33$), t = 3.51, p = .001 and length of residency ($\beta = -0.30$), t = -3.20, t = -3.

Chapter V

DISCUSSION

An increase in the number of international students studying abroad has contributed to an increase in research related to this group and their adjustment process in the host country (Jourdini, 2012; Wu, Garza, & Guzman, 2015). The opportunity to study abroad in the United States provides an enriching academic and intercultural experience for international students. Approximately 974,926 international students, originating from 25 countries, studied in the United States in 2014 - 2015 (IIE, 2015). However, because international students come from varied cultural backgrounds, challenges may emerge from the acculturation process and lack of preparation (Duke, Reinemund, & Bouyer, 2014). Individuals who encounter difficulties adapting to the culture of the host country may also experience significant distress associated with psychological adjustment. While many individuals encounter and overcome cultural challenges easily and effectively, adaptability varies from student to student, and both internal and external factors play a significant role in the adjustment process. For example, developing internal factors such as cross-cultural competence may help international students expect challenges and learn ways to cope with cultural differences in order strengthen their psychological adjustment. Additionally, external factors such as maintaining their social support after arrival may also help them to adjust psychologically to the new environment.

The primary purpose of this study was to explore the relationship between cross-cultural competence and social support on international students' psychological adjustment in the host country. An individual's cross-cultural competence consists of the individual's knowledge, abilities, and skills required to adequately function and communicate effectively in a new culture (Wang, Freeman, & Zhu, 2013). The individual's social support in the host country included family, old and new friends from the same ethnic or cultural group, and significant others. Specific facets of psychological adjustment examined included level of autonomy and environmental mastery. Autonomy is viewed as one's self-determination and independence, ability to resist social pressures to think and act authentically, regulating behaviors from within, and evaluating self by personal standards (Ryff, 1989). Environmental mastery is viewed as one's sense of control and mastery of external activities and changes, ability to manage environment, adapting communication skills, making effective use of surrounding opportunities, and ability to choose or create suitable contexts that fit one' values and needs (Ryff, 1989).

Based on a review of the literature, additional variables thought to be important in the prediction of international student adjustment (i.e., autonomy and environmental mastery) were also included in the model. The final model, which significantly predicted both participants' autonomy and environmental mastery in the host country included cross-cultural competence, level of social support, cultural differences, gender, and length of residency in the host country.

Cross-cultural Competence and Social Support on Autonomy

In the prediction of international student autonomy, cross-cultural competence contributed significantly to the prediction. International students with high cross-cultural competence reported higher autonomy or a sense of independence and ability to resist

social pressure in the host country. This finding was consistent with previous research which indicated that knowledge of cultural differences, including different groups of people, lifestyles, cultural values, habits, history and political issues play a significant role in one's level of autonomy (Dekovic', Engels, Shirai, de Kort, & Anker, 2002). This finding was also consistent with previous research (Czerwionka et al., 2014; Cicolini et al., 2015), indicating that prior experiences and exposure to diverse situations and people help to expand one's awareness in similar situations.

Social support did not significantly contribute to the prediction of student autonomy, perhaps in part because autonomy represents independence and selfdirectedness, and may not necessarily be associated with perceived social support from others. Additionally, past research indicated that perceived social supports and autonomy may carry different meanings for international students from various cultures or different genders. Mustaffa and Ilias (2013) found that country of origin impacts the adjustment of international students and other researchers revealed significant relationships between gender and emotional instability (Hussain & Munaf, 2012), cultural adjustment (Lee, Park, & Kim, 2009), and emotional responses and experiences (Deng, Chang, Yang, Huo, Zhou, 2016). To test these relationships, cultural type and gender were included in the predictive model. However, neither cultural group nor gender contributed significantly to international student adjustment (i.e., autonomy and environmental mastery) in the current study. Additional research is warranted in light of inconsistent research findings on cultural group and gender differences. In the future, qualitative research or a mixmethods approach is recommended to further explore how the constructs of autonomy and social support are defined among international students of various cultures.

Cross-Cultural Competence and Social Support on Environmental Mastery

In the prediction of international student environmental mastery, social support contributed significantly in the prediction. Findings indicate that social support in the form of relationships with one's family, old and new friends from the ethnic/host country, and significant others who provide emotional, instrumental, and financial support in the host country (Sener, 2011) provide individuals with a sense of control, the ability to act in the new environment, and to cope effectively with external challenges. These findings are consistent with previous research which concluded that international students with a strong relationship to individuals in the host country, regardless of their relationships within their cultural group, ultimately adjust to the host country and adapt to the differences more in comparison to those who do not have strong relationships within the host country (Mustaffa & Ilias, 2013). International students may effectively acculturate through expanding meaningful social networks with their hosts (Mak & Kim, 2011) while maintaining their identities and their social support from their own culture.

Cross-cultural competence did not contribute significantly to the prediction of environmental mastery within the current study, which is somewhat inconsistent with previous research. For example, Berry (2005) indicated that cross-cultural competence and acculturation influence feelings of autonomy and mastering the new environment. Additionally, some research suggests that psychological adjustment is enhanced by cross-cultural competence, which includes both dynamic (e.g., cultural skills, knowledge, behaviors) competencies and stable (e.g., personality characteristics and traits) competencies (Wang at el., 2013; Wu & Bodigerel-Koehler, 2013). Future researchers may wish to distinguish between various types of cross-cultural competency in their research to determine if dynamic versus stable competencies impact international student environmental mastery differently.

Length of Residency and Adjustment

Length of residence in the host country significantly contributed to the prediction of international student adjustment (both autonomy and environmental mastery). However, the negative correlation between length of residency and the variables of interest was unexpected. Findings indicate that international students who resided in the host country longer reported lower levels of autonomy and environmental mastery. These results seem counterintuitive in light of past research as Dwyer (2004) found that longer study abroad periods are more beneficial than short programs in terms of various gains (e.g., understanding the culture, making friendships, gaining confidence, academic achievement or successful carrier).

In interpreting these findings, it is important to consider the demographics of the sample. Well over half of the participants (69.10%) reported that they had already lived in the host country more than 2 years and it is plausible that the length of residency in the host country may be confounded by other internal or external factors that arose during the international students' study abroad. Additional research is warranted to explore alternative explanations for the unexpected findings. For example, future research may wish to focus on the acculturation process that occurs over time in the host country. Yakunina et al. (2013) found a significant relationship between acculturative stress and adjustment and coping with cultural differences. Furthermore, Poyrazli and Lopez (2007) found that international students who stayed longer in the host country reported higher levels of perceived discrimination, which in turn may impact their psychological adjustment and acculturative stress.

Additionally, future researchers may wish to investigate the potential impact of changes to the supports and services offered to students by international offices, faculty,

and teachers. Many international students receive assistance and support from international offices and English as a Second Language (ESL) programs within the first year in the host country, but less support is provided as students transition into their academic program of study, which in turn may negatively impact their adjustment over time. Future research may wish to investigate whether students' adjustment is impacted by whether they enter the country as an ESL student, undergraduate, or graduate student. Future research may also wish to investigate whether level of self-efficacy may play a significant role related to length of residency and adjustment. For example, international students who stay longer in the host country may come to realize how much there is to be learned about their environment just as supports are being removed, which in turn could impact adjustment.

Finally, economic, political (e.g., elections), or technological (e.g., use of social media) changes that occur during the length of time a student's resides in the host country may negatively influence adjustment. Future research may wish to investigate the impact of such changes over time on international student adjustment.

Limitations

Limitations with the current research involve the sample and region in which the study was conducted. While there was a substantial amount of missing data, efforts were made to over sample, resulting in a small sample with adequate power. Current research was conducted under time constraints within the summer months, but future researchers may wish to gather data over a period of several months to avoid sampling during student vacations or holidays. While the sample included international students from various countries studying at various universities in different cities and states, as a whole they were residing in the southern-eastern region of the United States and findings may not

generalize to other areas of the United States. Additionally, because the psychological adjustment of international students may differ from one host country to another (Mustaffa & Ilias, 2013), findings may not generalize to students hosted outside the United States. Future research may wish to conduct similar studies in other host countries.

Another plausible concern is that the study relied on online data collection and participant self-report. While unlikely, some participants included in the study may not represent the intended population. Also, self-reports could be biased or represent diverse points of view stemming from different cultural perspectives (i.e., individualistic or collectivistic) on autonomy and social support. While previous research suggests that culture influences both autonomy and social supports (Jobson, 2011; Kormi-Nouri, MacDonald, Farahani, Trost, & Shokri, 2013), efforts were made to examine this in the current study and no significant relationships were found. Nevertheless, as with all research, results should be interpreted in light of possible cultural limitations.

Recommendations

Knowing key factors that influence the autonomy and environmental mastery of international students is important to international students and those who strive to enhance their adjustment in the host country. The current research may help international students, their parents, and those who work with international students (e.g., study abroad programs, international studies, international organizations, English institutions, ESL teachers, professors, international students' advisors, and/or those who are interested in cultural diversity) to identify key internal and external factors influential to successful adjustment in the host country. Based on the findings of this study, the following are recommendations for those working with international students. One approach to

facilitating the adjustment of international students is to provide opportunities for them to develop their cross-cultural competence and social support before their departure for the host country. Given the significant relationships between cross-cultural competence and autonomy, and social support and environmental mastery, parents play a significant role. While parental influence was not the focus of the current study, previous research indicates that cross-cultural competency may develop through one's parents. It will be important for parents to model multicultural curiosity and to provide their children with exposure to diverse cultures. Parents should also encouraged friendships with others from different cultures and if feasible, travel with their children to enhance their children's ability to master the environments they encounter. While still in their home country, students may be encouraged to interact with people from different cultural backgrounds, participate in cultural diversity classes in their home schools and/or university, engage in cross-cultural activities (i.e., presentations, events, or festivals), and/or work to establish international networks. The second approach is to facilitate adjustment after students' arrival in the host country. It will be important for international students to maintain relationships with social support in their home country as well as to develop their social support networks in the host country. The increased use of social media may play an important role in maintaining a sense of connectedness with friends and family in the home country. However, it is important for students to also venture into their new environments to develop relationships with those in the host country. These relationships may be facilitated by English language proficiency. Students would benefit from programs sponsored by academic institutions that provide opportunities for them to practice their developing language skills, bolster social support in the host country, and increase cross-cultural competence. Academic institutions could

also provide enrichment opportunities for faculty and staff to learn more about international students and their unique challenges, and offer culturally sensitive counseling services that provide assistance in alleviating adjustment difficulties. Thus, identifying those internal and external influential factors of psychological adjustment would help international students in the host country to develop psychological well-being and successfully achieve their academic goals. Studies such as this one make connecting students to their host country more successful thus supporting future studies abroad for additional students. As international studies grow, so do the opportunities to foster positive relationships between citizens beyond the students themselves.

REFERENCES

- Agich, G. J. (1994). Key concepts: Autonomy. *Philosophy, Psychiatry, & Psychology*, 1(4), 267-269. Retrieved from https://www.researchgate.net/publication/236709831_Key_Concepts_Autonomy
- Ahn, Y., & Janke, M. C. (2011). Motivations and benefits of the travel experiences of older adults. *Educational Gerontology*, 37(8), 653-673. doi:10.1080/03601271003716010
- Alzahem, A. M., Van der Molen, H. T., Alaujan, A. H., Schmidt, H. G., & Zamakhshary,
 M. H. (2011). Stress amongst dental students: A systematic review. *European Journal of Dental Education*, 15(1), 8-18. doi:10.1111/j.1600-0579.2010.00640.x
- Bai, J. (2016). Perceived support as a predictor of acculturative stress among international students in the United States. *Journal of International Students*, 6(1), 93-106. Retrieved from http://files.eric.ed.gov/fulltext/EJ1083271.pdf
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29(6), 697-712. doi:10.1016/j.ijintrel.2005.07.013
- Bhullar, N., Hine, D. W., & Phillips, W. J. (2014). Profiles of psychological well-being in a sample of Australian university students. *International Journal of Psychology*, 49(4), 288-294. doi:10.1002/ijop.12022
- Briones, E., Tabernero, C., Tramontano, C., Caprara, G. V., Arenas, A. (2009).

 Development of a cultural self-efficacy scale for adolescents (CSES-A). *International Journal of Intercultural Relations*, 33(4), 301-312.

 doi:10.1016/j.ijintrel.2009.03.006

- Carrillo, R. (n.d.). The effectiveness of short-term study abroad programs in the developmental of intercultural competence among participants CSU students.

 Retrieved from https://www.csustan.edu/sites/default/files/honors/documents/journals/Stirrings/C arrillo.pdf
- Chirkov, V. I. (2014). The universality of psychological autonomy across cultures:

 Arguments from developmental and social psychology. In N. Weinstein (Ed.), *Human Motivation and Interpersonal Relationships: Theory, Research, and Applications* (pp. 27-52). Dordrecht, NL: Springer. Retrieved

 from http://www.springer.com/cda/content/document/cda_downloaddocument/97

 89401785419-c2.pdf?SGWID=0-0-45-1492245-p176370416.
- Chirkov, V.I. (2007). Culture, personal autonomy and individualism: their relationships and implications for personal growth and well-being. In G. Zheng & K. Leung & J. G. Adair (Eds.), *Perspectives and Progress in Contemporary Cross-Cultural Psychology* (pp. 247-263). Beijing, China: China Light Industry Press. Retrieved from http://iaccp.org/ebook/xian/PDFs/5_1Chirkov.pdf
- Cicolini, G., Della Pelle, C., Comparcini, D., Tomietto, M., Cerratti, F., Schim, S. M., Giovanni, P. D., & Simonetti, V. (2015). Cultural competence among Italian nurses: A multicentric survey. *Journal of Nursing Scholarship*, 47(6), 536-543. doi:10.1111/jnu.12165
- Cross, T. L., Bazron B. J., Dennis K. W., & Isaacs M. R. (1989). Towards a culturally competent system of care: Vol. I. Washington, DC: National Technical Assistance Center for Children's Mental Health, Georgetown University Child Development Center. Retrieved from http://files.eric.ed.gov/fulltext/ED330171.pdf

- Czerwionka, L., Artamonova, T., & Barbosa, M. (2014). Intercultural competence during short-term study abroad: A focus on knowledge. *Proceedings of the Intercultural Competence Conference*, 3, 46-77. Retrieved from http://cercll.arizona.edu/_media/development/conferences/2014_icc/icc14pr oceedings_czerwionka_artamonova_barbosa_icc_study_abroad.pdf
- Davis III, R. F., & Kiang, L. (2015). Religious identity, religious participation, and psychological well-being in Asian American adolescents. *Journal of Youth & Adolescence*, 45(3), 532-546. doi:10.1007/s10964-015-0350-9
- DeBruin-Parecki, A., & Klein, H. A. (2003). Stvaranje prijatelja/making friends:

 Multimodal literacy activities as bridges to intercultural friendship and

 understanding. *Journal of Adolescent & Adult Literacy*, 46(6), 506-513. Retrieved

 from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?sid=76d77887-fc0b
 4475-ab41-81e7e1a67b3d%40sessionmgr104&vid=16&hid=111
- Dekovic', M., Engels, R. C. M. E., Shirai, T., de Kort, G., & Anker, A. L. (2002). The role of peer relations in adolescent development in two cultures: The Netherlands and Japan. *Journal of Cross-Cultural Psychology*, 33(6), 577-595. doi:10.1177/022022102238270
- Deng, Y., Chang, L., Yang, M., Huo, M., & Zhou, R. (2016). Gender differences in emotional response: Inconsistency between experience and expressivity. *Plos ONE*, 11(6), 1-12. doi:10.1371/journal.pone.0158666
- Desa, A., Yusooff, F., & Abd Kadir, N. B. (2012). Acculturative stress among international postgraduate students at UKM. *Procedia Social and Behavioral Sciences*, 59, 364-369. doi: 10.1016/j.sbspro.2012.09.287

- Dinh, K. T., Holmberg, M. D., Ho, I. K., & Haynes, M. C. (2014). The relationship of prejudicial attitudes to psychological, social, and physical well-being within a sample of college students in the United States. *Journal of Cultural Diversity*, 21(2), 56-66. Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?sid=e7c6291b-2da8-4860-bf4e-6a68e0e04f14%40sessionmgr120&vid=17&hid=111
- Duke, S. T., Reinemund, S. S., & Bouyer, K. (2014). *Preparing to Study Abroad: Learning to Cross Cultures*. Sterling, Virginia: Stylus.
- Duru, E., & Poyrazli, S. (2007). Personality dimensions, psychosocial-demographic variables, and English language competency in predicting level of acculturative stress among Turkish international students in the USA. *International Journal of Stress Management*, 14, 99-110. doi: 10.1037/1072-5245.14.1.99
- Dwyer, M. M. (2004). More is better: The impact of study abroad program duration. *The Interdisciplinary Journal of Study Abroad*, 10, 151-163. Retrieved from http://files.eric.ed.gov/fulltext/EJ891454.pdf
- Fantini, A., & Tirmizi, A. (2006). Exploring and assessing intercultural competence.

 World Learning Publications. Paper 1. Retrieved

 from http://digitalcollections.sit.edu/worldlearning_publications/1
- Garcia, D., Al Nima, A., & Kjell, O. N. E. (2014). The affective profiles, psychological well-being, and harmony: Environmental mastery and self-acceptance predict the sense of a harmonious life. *Peerj*, 2(e259), 1-2. doi:10.7717/peerj.259
- Garcia. D., & Siddiqui, A. (2009). Adolescents' psychological well-being and memory for life events: Influences on life satisfaction with respect to temperamental

- dispositions. *Journal of Happiness Studies*, 10(4), 407-419. doi: 10.1007/s10902-008-9096-3
- Goodwin, R., Cost, P., & Adonu, J. (2004). Social support and its consequences:
 'Positive' and 'deficiency' values and their implications for support and selfesteem. *British Journal of Social Psychology*, 43(3), 465- 474. Retrieved
 from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?sid=bf8788db-66834ef8-be57-543e606438b9%40sessionmgr102&vid=5&hid=120
- Gratz, J. (2006). The impact of parents' background on their children's education.

 Retrieved from
- Greenleaf, C. A., Petrie, T. A., & Martin, S. B. (2010). Psychosocial variables associated with body composition and cardiorespiratory fitness in middle school students. *Research Quarterly for Exercise and Sport*, 81(3), S65-S74. Retrieved from http://library.valdosta.edu:2048/login?url=http://search.proquest.com/docview/751933166?accountid=14800

http://www.macalester.edu/educationreform/publicintellectualessay/Gratz.pdf

- Gurung, R. A. R. (2010). *Health Psychology: A Cultural Approach*. Belmont, CA: Wadsworth.
- Harris, A. L., Belanger, F, Loch, K., Murray, M. C., & Urbaczewski, A. (2011). Study abroad as an education experience: Challenges, realizations, and lessons learned.
 Communications of the Association for Information Systems, 28, Article 2.
 Retrieved from http://aisel.aisnet.org/cais/vol28/iss1/2
- Hirai, R., Frazier, P., & Syed, M. (2015). Psychological and sociocultural adjustment of first-year international students: Trajectories and predictors. *Journal of Counseling Psychology*, 62(3), 438-452. doi:10.1037/cou0000085

- Hughes, D., & Chen, L. (1997). When and what parents tell children about race: An examination of race-related socialization among African American families.

 Applied Developmental Science, 1(4), 200-214. Retrieved from https://steinhardt.nyu.edu/scmsAdmin/uploads/002/719/When%20and%20w hat%20parents%20tell%20children%20about%20race.pdf
- Hussain, S., & Munaf, S. (2012). Gender difference in perceived childhood father rejection and psychological adjustment in adulthood. *Journal of Behavioural Sciences*, 22(1), 100-114. Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=5&sid=f93cdfeb-7950-4faf-a6e8-8154820c10db%40sessionmgr105&hid=103
- Ibañez, G. E., Kharchikian, N., Buck, C. A., Weisshaar, D. L., Abush-Kirsh, T., Lavizzo,
 E. A., & Norris, F. H. (2003). Qualitative analysis of social support and conflict
 among Mexican and Mexican-American disaster survivors. *Journal of Community Psychology*, 31(1), 1-23. doi: 10.1002/jcop.10032
- Ingraham, E. C., & Peterson, D. L. (2004). Assessing the impact of study abroad on student learning at Michigan state university. *The Interdisciplinary Journal of Study Abroad*, 10, 83-100. Retrieved from http://files.eric.ed.gov/fulltext/EJ891450.pdf
- Institute of International Education (IIE). (2015). International Students by Academic Level, 2013/14 2014/15. Open Doors Report on International Educational Exchange. Retrieved from http://www.iie.org/opendoors
- Institute of International Education (IIE). (2015). Open doors 2015: International students in the U.S. up ten percent to nearly one million; study abroad by American

- students picks up momentum. Open Doors Report on International Educational Exchange. Retrieved from http://www.iie.org/opendoors
- Jackson, M., Ray, S., & Bybell, D. (2013). International students in the U.S.: Social and psychological adjustment. *Journal of International Students*, 3(1), 17-28.
 Retrieved from http://files.eric.ed.gov/fulltext/EJ1056438.pdf
- Jobson, L. (2011). Cultural differences in levels of autonomous orientation in autobiographical remembering in posttraumatic stress disorder. *Applied Cognitive Psychology*, 25, 175-182. doi:10.1002/acp.1660
- Jourdini, M. M. (2012). The impact of international students on American Students and faculty at an Appalachian university. Online Theses and Dissertations. Paper 107.

 Retrieved

 from http://encompass.eku.edu/cgi/viewcontent.cgi?article=1106&context=etd
- Kasser, V. G., & Ryan, R. M. (1999). The relation of psychological needs for autonomy and relatedness to vitality, well-being, and mortality in a nursing home. *Journal of Applied Social Psychology*, 29(5), 935-954. doi:10.1111/j.1559-1816.1999.tb00133.x
- Kent-Wilkinson, A., Dietrich Leurer, M., Luimes, J., Ferguson, L., & Murray, L. (2015).
 Studying abroad: Exploring factors influencing nursing students' decisions to
 apply for clinical placements in international settings. *Nurse Education Today*, 35, 941-947. doi:10.1016/j.nedt.2015.03.012
- Kim, Y. K. (1993). Cross-cultural adaptation: An integrative theory. In R. L. Wiseman & J. Koester (Eds.), *Intercultural Communication Theory* (pp. 170-193). Newbury Park, CA: Sage

- Kim, Y.Y. (1992). Intercultural communication competence: A systems-thinking view. In Gudykunst, W. B. & Kim, Y. Y. (Eds.), Readings on Communicating with Strangers: An Approach to Intercultural Communication (pp. 371-381). New York: McGraw-Hill.
- Koppelman, K. L. (2013). *Understanding Human Differences: Multicultural Education* for a Diverse America. Upper Saddle River, NJ: Pearson Education
- Kormi-Nouri, R., MacDonald, S., Farahani, M-N. Trost, K. & Shokri, O. (2013).

 Academic stress as a health measure and its relationship to patterns of emotion in collectivist and individualist cultures: similarities and differences. *International Journal of Higher Education*, 4(2), 92-104. doi:10.5430/ijhe.v4n2p92
- Kühler, M., & Jelinek, N. (2010). Autonomy and self. Preprints of the Centre for

 Advanced Study in Bioethics. Retrieved from https://www.unimuenster.de/imperia/md/content/kfgnormenbegruendung/intern/publikationen/kuehler/10_k__hler__autonomy_and_the_self.pdf
- Lee, S. A., Park, H. S., & Kim, W. (2009). Gender differences in international students' adjustment. *College Student Journal*, 43(4), 1217-1227. Retrieved from http://eds.a.ebscohost.com/eds/detail/detail?vid=5&sid=7b42bf8c-4069-41e0-b54c-2d8f31426a10%40sessionmgr4009&hid=4102&bdata=JnNpdGU9ZWRzLWxpd mUmc2NvcGU9c2l0ZQ%3d%3d#AN=48318644&db=tfh
- Leung, K., Ang, S., & Tan, M. L. (2014). Intercultural Competence. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 489-519. doi: 10.1146/annurev-orgpsych-031413-091229

- Li, J., Wang, Y., & Xiao, F. (2014). East Asian international students and psychological well-being: A systematic review. *Journal of International Students*, 4(4), 301-313. Retrieved from http://files.eric.ed.gov/fulltext/EJ1054833.pdf
- Lynch, M. F. (2013). Attachment, autonomy, and emotional reliance: A multilevel model.

 Journal of Counseling & Development, 91(3), 301-312. doi:10.1002/j.1556-6676.2013.00098.x
- Mak A. S., & Kim, I. (2011). Korean international students' coping resources and psychological adjustment in Australia. *The Journal of Multicultural Society*, 2(1), 56-84. Retrieved from http://www.omnesjournal.org/upload/public/pdffile/10/2.pdf
- McAuliffe, G. (2013). *Culturally Alert Counseling: A Comprehensive Introduction*. Thousand Oaks, CA: SAGE.
- McGarvey, A., Brugha, R., Conroy, R. M., Clarke, E., & Byrne, E. (2015). International students' experience of a western medical school: a mixed methods study exploring the early years in the context of cultural and social adjustment compared to students from the host country. *BMC Medical Education*, 15(111), 1-13. doi:10.1186/s12909-015-0394-2
- McGill, R. K., Way, N., & Hughes, D. (2012). Intra- and interracial best friendships during middle school: Links to social and emotional well-being. *Journal of Research on Adolescence*, 22(4), 722-738. doi: 10.1111/j.1532-7795.2012.00826.x
- McKeown, J. S. (2009). The first time effect: The impact of study abroad on college student intellectual development. Retrieved from http://eds.b.ebscohost.com/eds/ebookviewer/ebook/bmxlYmtfXzI2NTkwN

- V9fQU41?sid=00c924ee-e46a-4de9-8bfe-40be38864ee8@sessionmgr102&vid=0&format=EB&rid=1
- Milner, D. (1983). *Children and Race: Ten Years on*. West Sussex, United Kingdom: Ward Lock Educational Co.
- Mustaffa, C. S., & Ilias, M. (2013). Relationship between students adjustment factors and cross cultural adjustment: A survey at the northern university of Malaysia.

 Intercultural Communication Studies, 22(1), 279-300. Retrieved from http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?sid=796caf51-74a4-40d3-a015-32da36322810%40sessionmgr4008&vid=82&hid=4111
- Ordonez, T. N., Lima-Silva, T. B., & Cachioni, M. (2011). Subjective and psychological well-being of students of a university of the third age: Benefits of continuing education for psychological adjustment in the elderly. *Dement Neuropsychol*, 5(3), 216-225. Retrieved from http://www.scielo.br/pdf/dn/v5n3/1980-5764-dn-5-03-00216.pdf
- Osborne, D. (2012). Factors in international student identity formation: Processes and challenges. *David Publishing*, 9(4), 1035-1044. Retrieved from www.davidpublishing.com/DownLoad/?id=5464
- Perron, B. E. (2006). A Critical examination of the environmental mastery scale. *Social Indicators Research*, 79, 171-188. doi:10.1007/s11205-005-4098-6
- Peterson, J. C., Milstein, T., Chen, Y., & Nakazawa, M. (2011). Self-efficacy in intercultural communication: The development and validation of a sojourners' scale. *Journal of International and Intercultural Communication*, 4(4), 290-309. doi:10.1080/17513057.2011.602476

- Pham, L., & Saltmarsh, D. (2013). International students' identities in a globalized world:

 Narratives from Vietnam. *Journal of Research in International Education*, 12(2),

 129-141. doi:10.1177/1475240913481171
- Phillips, R. H. (1961). Environmental mastery and personality development. *Archives of General Psychiatry*, 5(2), 146-150. doi:10.1001/archpsyc.1961.01710140038006
- Poyrazli, S. (2015). Psychological symptoms and concerns experienced by international students: Outreach implications for counseling centers. *Journal of International Students*, 5(3), 306-312. Retrieved from http://files.eric.ed.gov/fulltext/EJ1060046.pdf
- Poyrazli, S., & Lopez, M. D. (2007). An exploratory study of perceived discrimination and homesickness: A comparison of international students and American students. *The Journal of Psychology*, 141(3), 263–280. Retrieved from http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?sid=f7b98644-3677-4a10-a804-2e45704b6200%40sessionmgr4008&vid=7&hid=4111
- Poyrazli, S., Thukral, R. K., & Duru, E. (2010). International students' race-ethnicity, personality and acculturative stress. *Journal of Psychology and Counseling*, 2(8), 25-32. Retrieved from http://www.academicjournals.org/article/article1380360045_Poyrazlit%20al .pdf
- Rude, J., & Herda, D. (2010). Best friends forever? Race and the stability of adolescent friendships. *Social Forces*, 89(2), 585-608. Retrieved from http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?sid=796caf51-74a4-40d3-a015-32da36322810%40sessionmgr4008&vid=34&hid=4111

- Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy:

 Does psychology need choice, self-determination, and will? *Journal of Personality*, 74(6), 1557-1586. doi:10.1111/j.1467-6494.2006.00420.x
- Ryff, C. (1989). Happiness is everything, or is it? Exploration on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081. Retrieved from https://www.scribd.com/doc/35667978/Happiness-is-Everything-Or-is-It-Explorations-on-the-Meaning-of-Psychological-Well-Being
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-108. doi:10.1037/0022-3514.57.6.1069
- Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited.

 *Journal of Personality and Social Psychology, 69,719-727. Reterivered from http://midus.wisc.edu/findings/pdfs/830.pdf
- Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2007). Loneliness and international students: An Australian study. *Journal of Studies in International Education*, 12(2), 148-180. doi: 10.1177/1028315307299699
- Seifert, T. A. (2005). The Ryff scales of psychological well-being. Retrieved from http://www.liberalarts.wabash.edu/ryff-scales/
- Şener, A. (2011). Emotional support exchange and life satisfaction. *International Journal of Humanities and Social Science*, 1(2), 79-88. Retrieved from http://www.ijhssnet.com/journals/Vol._1_No._2;_February_2011/10.pdf
- Severino, S., Messina, R., & Llorent, V. J. (2014). International student mobility: An identity development task? *International Journal of Humanities and Social*

- Science, 4(3), 89-103. Retrieved from http://www.ijhssnet.com/journals/Vol 4 No 3 February 2014/10.pdf
- Sias, P. M., Drzewiecka, J. A., Meares, M., Bent, R., Konomi, Y., Ortega, M., & White,
 C. (2008). Intercultural friendship development. *Communication Reports*, 21(1),
 1-13. doi:10.1080/08934210701643750
- Sinicrope, C., Norris, J., &Watanabe, Y. (2007). Understanding and assessing intercultural competence: A summary of theory, research, and practice (technical report for the foreign language program evaluation project). *Second Language Studies*, 26(1), 1-58. Retrieved from http://www.hawaii.edu/sls/wp-content/uploads/2014/09/Norris.pdf
- Sullivan, C., & Kashubeck-West, S. (2015). The interplay of international students' acculturative stress, social support, and acculturation modes. *Journal of International Students*, 5(1), 1-11. Retrieved from http://files.eric.ed.gov/fulltext/EJ1052843.pdf
- Sümer, S., Poyrazli, S., & Grahame, K. (2008). Predictors of depression and anxiety among international students. *Journal of Counseling & Development*, 86(4), 429-437. Retrieved from http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?sid=e7c6291b-2da8-4860-bf4e-6a68e0e04f14%40sessionmgr120&vid=20&hid=111
- Tang, Y. (2008). Social support of elderly caregivers. *International Journal of Business* and Management, 3(8), 81-84. Retrieved from http://www.ccsenet.org/journal/index.php/ijbm/article/viewFile/1314/1275

- Topham, P., & Moller, N. (2011). New students' psychological well-being and its relation to first year academic performance in a UK university. *Counselling & Psychotherapy Research*, 11(3), 196-203. doi:10.1080/14733145.2010.519043
- Tummala-Narra, P., & Claudius, M. (2013). A qualitative examination of Muslim graduate international students' experiences in the United States. *International Perspectives in Psychology: Research, Practice, Consultation*, 2(2), 132-147. doi:10.1037/ipp0000003
- Twombly, S.B., Salisbury, M. H., Tumanut, S. D., & Klute. P. (2012). J-B ASHE Higher Education Report Series (AEHE): Study abroad in a new global century:

 Renewing the promise, refining the purpose, ASHE Higher Education Report (1).

 Somerset, US: Jossey-Bass. Retrieved

 from http://site.ebrary.com.library.valdosta.edu:2048/lib/valdosta/reader.action?d

 ocID=10618829
- Underlid, K. (2012). Autonomy and poverty An empirical study of long-term recipients of social assistance. *Social Welfare*. doi: 10.5772/37833
- Wang, D., Freeman, S., & Zhu, C. J. (2013). Personality traits and cross-cultural competence of Chinese expatriate managers: a socio-analytic and institutional perspective. *International Journal of Human Resource Management*, 24(20), 3812-3830. doi:10.1080/09585192.2013.778314
- Wang, M-C., Nyutu, P. N., Tran, K. K., Spears, A. (2015). Finding resilience: The mediation effect of sense of community on the psychological well-being of military spouses. *Journal of Mental Health Counseling*, 37(2), 164-174. doi:10.17744/mehc.37.2.07054x614489204m

- Wei, M., Ku, T-Y., Russell, D. W., Mallinckrodt, B., & Liao, K. Y. (2008). Moderating effects of three coping strategies and self-esteem on perceived discrimination and depressive symptoms: A minority stress model for Asian international students.

 **Journal of Counseling Psychology, 55(4), 451-462. doi:10.1037/a0012511
- Williams, T. R. (2005). Exploring the impact of study abroad on students' intercultural communication skills: Adaptability and sensitivity. *Journal of Studies in International Education*, 9(4), 356-371. doi: 10.1177/1028315305277681
- Wu, H., Garza, E., & Guzman, N. (2015). International student's challenge and adjustment to college. *Education Research International*, 20151. doi:10.1155/2015/202753
- Wu, W., & Bodigerel-Koehler, M. (2013). The mediating effects of cross-cultural dynamic competencies on the relationship between multicultural personality and cross-cultural adjustment. *International Journal of Human Resource Management*, 24(21), 4026-4045. doi:10.1080/09585192.2013.781518
- Yakunina, E. S., Weigold, I. K., Weigold, A., Hercegovac, S., & Elsayed, N. (2013).

 International students' personal and multicultural strengths: Reducing acculturative stress and promoting adjustment. *Journal of Counseling & Development*, 91(2), 216-223. doi: 10.1002/j.1556-6676.2013.00088.x
- Zimet, G. D., Dahlem, N. W., Zimet, S. G. & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30-41. doi: 10.1207/s15327752jpa5201_2
- Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990).

 Psychometric characteristics of the Multidimensional Scale of Perceived Social

Support. *Journal of Personality Assessment*, 55(3-4), 610-617. doi:10.1080/00223891.1990.9674095

Ziskis, A. S. (2010). The relationship between personality, gratitude, and psychological well-being (Doctoral dissertation, New Bruncwick Rutgers, State University of New Jersey). Retrieved from http://www.libraries.rutgers.edu/

APPENDIX A:

Tables 1-3

Table 1

Demographic information of the 73 total participants who removed from the sample

Gender	n	%
Male	34	46.58
Female	39	53.42
Country of origin		
India	20; (6 females and 14 males)	27.40
China	11; (7 females and 4 males)	15.06
Saudi Arabia	7; (7 females)	9.60
Republic of Korea	3; (2 females and 1 male)	4.11
Italy	3; (2 females and 1 male)	4.11
Colombia	3; (1 female and 2 males)	4.11
Vietnam	2; (2 males)	2.74
Iran	2; (1 female and 1 male)	2.74
Bulgaria	1 female	1.37
Kuwait	1 male	1.37
Indonesia	1 female	1.37
Jamaica	1 female	1.37
Brazil	1 male	1.37
Venezuela	1 female	1.37
Malawi	1 female	1.37
Rwanda	1 male	1.37
Lebanon	1 female	1.37
The Netherlands	1 female	1.37
German	1 female	1.37
Romania	1 female	1.37
Ghana	1 male	1.37
Chile	1 male	1.37
"Rather not say"	7; (4 females and 3 males)	9.60
Missing data	1 male	1.37
Cultural backgrounds		
Arab	12	16.44
Asian/Pacific Islander	38	52.05
African American/Black	3	4.11
European American/White	6	8.22
Hispanic	5	6.85
Latino	3	4.11
Other	5	6.85
"preferred not to say"	1	1.37

International students' parents		
races/ethnicities		
Same race/ ethnicity	71	97.26
Different races/ethnicities	2	2.74
Marital Status		
Single	64	87.67
Married	9	12.33
Occupational statues		
Student	57	78.08
Employed	11	15.07
Unemployed	3	4.11
Rather not to say	1	1.37
Missing data	1	1.37
Level of education		
High school graduate	12	16.44
Bachelor's degree	33	45.21
Master's degree	20	27.40
Doctoral degree	8	10.96
English language		
English was not the first language	60	82.19
English was the first language	12	16.44
Missing data	1	1.37
Being an international student was the first		
experience		
Yes	57	78.08
No	14	19.18
Missing data	2	2.74
Length of residency in the host country		
More than two years	45	61.64
More than one year	9	12.33
10-12 months	6	8.22
7-9 months	4	5.48
4-6 months	2	2.74
1-3 months	2	2.74
Rather not to say	3	4.11
Missing data	2	2.74
Other host country(ies) experience(s)		
Yes	51	69.86
No	19	26.03
"Rather not to say"	1	1.37

Missing data	2	2.74
Having cross-cultural friendships before their study abroad experiences		
Yes	33	45.21
No	38	52.05
Missing data	2	2.74
Having cross-cultural friendships upon their arrival to the host country		
Made cross-cultural friendships	64	87.67
Made no cross-cultural friendships	7	9.59
Missing data	2	2.74

Table 2
Variable Coefficients Predicting international students' autonomy

Predictor Variables							Bivariate <i>r</i>	Partial r
	M	SD	В	β	t	p		
Cross-cultural competence	220.96	28.72	0.05	.21*	2.12	.037	.25	.22
Social support	66.21	11.27	0.10	.17	1.76	.083	.19	.19
Cultural differences			0.05	.02	0.20	.844	.03	.02
Lengths of residency			-1.36	28*	-2.89	.005	30	30
Gender differences			-1.51	12	-1.24	.219	15	13

^{*}Significant at $p \le .05$

Table 3
Variable Coefficients Predicting International students' environmental mastery

Predictor Variables							Bivariate <i>r</i>	Partial r
	M	SD	В	β	t	p		
Cross-cultural competence	220.43	28.65	0.03	.14	1.51	.136	.20	.16
Social support	66.19	11.21	0.18	.33*	3.51	.001	.36	.35
Cultural differences			-0.19	08	-0.80	.427	04	09
Lengths of residency			-1.35	30*	-3.20	.002	28	32
Gender differences			1.16	.10	1.05	.297	.10	.11

^{*}Significant at $p \le .05$

APPENDIX B:

Institutional Review Board (IRB) approval



Institutional Review Board (IRB) for the Protection of Human Research Participants

PROTOCOL EXEMPTION REPORT

Norah Aldawsari PROTOCOL NUMBER: 03371-2016 INVESTIGATOR: PROJECT TITLE: The Effects of Cross-Cultural Competence and Social Support on International Students' Academic Achievement and Psychological Well-Being INSTITUTIONAL REVIEW BOARD DETERMINATION: This research protocol is exempt from Institutional Review Board oversight under Exemption Category(ies) 2. You may begin your study immediately. If the nature of the research project changes such that exemption criteria may no longer apply, please consult with the IRB Administrator (irb@valdosta.edu) before continuing your research. ADDITIONAL COMMENTS/SUGGESTIONS: Although not a requirement for exemption, the following suggestions are offered by the IRB Administrator to enhance the protection of participants and/or strengthen the research proposal: If this box is checked, please submit any documents you revise to the IRB Administrator at irb@valdosta.edu to ensure an updated record of your exemption. Elizabeth W. Olphie

Revised: 12.13.12

Elizabeth W. Olphie, IRB Administrator

Date

Thank you for submitting an IRB application.

Please direct questions to irb@valdosta.edu or 229-259-5045.

APPENDIX C:

Consent to Participate in Research

VALDOSTA STATE UNIVERSITY

Consent to Participate in Research

You are being asked to participate in a survey research project entitled "The Effects of Cross-Cultural Competence and Social Support on International Student's Academic Achievement and Psychological Well-being," which is being conducted by Norah Fahad Aldawsari, a graduate student at Valdosta State University. This survey is anonymous. No one, including the researcher, will be able to associate your responses with your identity. Your participation is voluntary. You may choose not to take the survey, to stop responding at any time, or to skip any questions that you do not want to answer. You must be at least 18 years of age to participate in this study. You must be an international student who his or her English is not the first language. Your completion of the survey serves as your voluntary agreement to participate in this research project and your certification that you are 18 or older.

If you are interested in winning a \$50 Amazon gift card, you can email the researcher to be entered into a drawing for a chance to win the \$50 Amazon gift card. There will be no way to associate your name and your responses.

Questions regarding the purpose or procedures of the research should be directed to Norah Fahad Aldawsari at 217-607-3578 or nfaldawsari@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-259-5045 or irb@valdosta.edu.

APPENDIX D:

Recruiting Participants with the Assistance of International Students Program Offices

Dear Sir/Ma'am,

My name is Norah Fahad Aldawsari. I am a graduate student in the Clinical-Counseling Psychology Program at Valdosta State University (VSU). I am conducting research on international students within the United States, which has been approved by the Institutional Review Board (IRB) at VSU. I am requesting your assistance in recruiting international students who speak English as a second language to participate in my research study. Participation in this research will include taking a Qualtrics online survey about cross-cultural competence, social support, and psychological adjustment in the host country. The survey will take approximately 25-30 minutes to complete. After submission of the survey, international students may take a screenshot of the survey completion page and email it to the researcher to be entered into a drawing for a chance to win a \$50 Amazon gift card. There will be no way to associate students' names with the Qualtrics responses.

If you would like to assist me in recruiting participants or if you have any questions, I can be reached at 217-607-3578 or nfaldawsari@valdosta.edu. In sincerely appreciate your time and attention.

Regards,

Norah Fahad Aldawsari

APPENDIX E:

Email Requesting International Students' Participation

Questions regarding the purpose or procedures of the research should be directed to Norah Fahad Aldawsari at 217-607-3578 or nfaldawsari@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-259-5045 or irb@valdosta.edu.

This is Norah Aldawsari, a graduate students in clinical/counseling psychology at Valdosta State University. I emailed you to request your participation as an international students in the United States to complete an online survey. The researcher would like to get more knowledge of your experiences and adaptation in the host country. Your participation and responses to this survey will help as to determine if cross-cultural competence and social support in the host country predict psychological adjustment (autonomy and environmental mastery) and academic achievement (GPA). The survey will take about 25-30 minutes to complete. Please click the link below to go to the survey Web site (or copy and paste the link to your Internet browser) and then complete the survey (https://XXXXXXXXX).

Your participation in the survey is completely voluntary. Participation will be anonymous. No personally identifiable information will be obtained. The Institutional Review Board (IRB) at Valdosta State University has approved this survey. There is a chance to win a \$50 Amazon gift card of compensation from the researcher that will be given to only one of the participants. After submission of the completed survey, take screenshot of the survey completion page and email it to the researcher to be entered into

a drawing for a chance to win the gift card. There will be no way to associate students' name or email address with Qualtrics responses.

If you have any questions or concerns, please feel free to contact me at nfaldawsari@valdosta.edu or 217-607-3578.

Thank you very much for your time and cooperation. Your participation is very important to me.

Sincerely,

Norah F. Aldawsari

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Email Requesting International Students' Participation in Social Media (English Version)

Questions regarding the purpose or procedures of the research should be directed to Norah Fahad Aldawsari at 217-607-3578 or nfaldawsari@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-259-5045 or irb@valdosta.edu.

Dear international students who study in the U.S.,

This is Norah Aldawsari, a graduate students in clinical/counseling psychology at Valdosta State University. I am conducting a research study to predict the relationship between cross-cultural competence and social support at the host country on their psychological adjustment and academic achievement. You are invited to voluntarily complete an online survey. It will take between 25-30 minutes to complete.

After submission of the survey, international students may take a screenshot of the survey completion page and email it to the researcher to be entered into a drawing for a chance to win a \$50 Amazon gift card. There will be no way to associate your name with your responses.

If you have any questions or concerns, please feel free to contact the researcher at nfaldawsari@valdosta.edu.

Thank you so much for your time and cooperation, your participation is very important.

Regards,

Norah Fahad Aldawsari

APPENDIX G:

Post Requesting International Students' Participation in Social Media (Arabic Version)

Questions regarding the purpose or procedures of the research should be directed to Norah Fahad Aldawsari at 217-607-3578 or nfaldawsari@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-259-5045 or irb@valdosta.edu.

للطلاب والطالبات الدارسون والدارسات في الولايات المتحدة الأمريكية

السلام عليكم ورحمة الله وبركاته

أنا نوره فهد الدوسري، طالبة دراسات عليا في تخصص علم النفس الأكلينيكي الإرشادي في جامعة فالدوستا ستيت بولاية جورجيا. أجري بحث لمعرفة العلاقة بين المعرفة والخبراث الثقافيه التي عايشها الفرد قبل وصوله لبلد الابتعاث و العلاقات الاجتماعيه في بلد الابتعاث، وتأثيرها على الحالة النفسية والدراسية للطالب الدولي في بلد الإبتعاث. جميعكم مدعون للمشاركة في البحث واستكمال الاستبيان. مدة استكمال الاستبيان بين 25-30 دقيقة. هناك فرصة للفوز ببطاقة امازون قيمتها 50 دولار، كل ماعليك القيام به هو بعد استكمال الاستبانه، خذ صورة شاشة لصفحة الاستكمال، وقم بإرسالها للباحث عن طريق الإيميل. سيقوم الباحث بعملية القرعه وسحب ايميل احد المشاركين والفوز ببطاقة أمازون. هوية المشترك بالتأكيد ستكون مجهولة، ولا توجد أي طريقة للربط بين اجابته/ها على الاستبانه وبين هويته/ها.

أي استفسار أو سؤال بخصوص البحث يمكن التواصل مع الباحثة عن طريق الإيميل

nfaldawsari@valdosta.edu

مشاركتكم مهمة وأشكر وأقدر وقتكم وجهدكم المبذول

تحياتي

نوره الدوسري

APPENDIX H:

Demographic information

Questions regarding the purpose or procedures of the research should be directed to Norah Fahad Aldawsari at 217-607-3578 or nfaldawsari@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-259-5045 or irb@valdosta.edu.

I am 18 years of age or older.

0	Yes
\circ	1 00

o No

How old are you?

o Rather not say

What is your gender?

- o Female
- o Male
- o Rather not say

What is your current marital status?

- o Single
- Married
- o Divorced
- Separated
- o Widowed
- o Rather not say

What is your occupational status?

- Employed
- Self-employed
- Unemployed
- o A homemaker
- A student
- o Retired

0	Other (please specify) Rather not say
What	is your level of education?
0 0	High school Bachelor's degree Master's degree Doctoral degree Professional degree Other (please specify) Rather not say
How v	vould you classify yourself?
0 0 0 0 0	Arab Asian/Pacific Islander African American/Black European American/White Hispanic Indigenous or Aboriginal Latino Multiracial Other (please specify) Rather not say
	our parents from the same race/ethnicity?
0 0	Yes No Rather not say is your nationality / country of origin?
0	Rather not say
What i	is your home country? Rather not say
What	is your native language?
0	Rather not say
Is Eng	lish your first language?
0	Yes No

o Rather not say

How long have you been in your host country?
 1-3 months 4-6 months 7-9 months 10- 12 months More than one year. More than 2 years. Rather not say
Is this your first experience as an international student?
 Yes No Rather not say
If you answered no to the above question, which other countries did you have study abroad experience?
o Rather not say
Have you been to another country besides your home and host countries?
YesNoRather not say
If you answered yes to the question above, how many other countries have you visited?
Rather not say
Do you have friends from different countries and/or nationalities that you have made upon tour arrival in your host country?
YesNoRather not say
Did you have friends from different countries and/or nationalities before your study abroad experience?
YesNoRather not say

APPENDIX I:

Intercultural Competence (ICC) (Fantini & Tirmizi, 2006).

Instructions:

Please read the following statements and rate them based on what fits your skills/personalities prior your arrival to the host country.

Remember 0 indicates little to no competence and 5 indicating that you are ver competent.

Knowledge	0 Not compet ent	1	2	3	4	5 Ver y com pete nt
1. I can cite a definition of culture and describe its						
components and complexities						
2. I know the essential norms and taboos of the host						
culture (e.g., greetings, dress, behaviors, etc.)						
3. I can contrast important aspects of the host language						
and culture with my own						
4. I recognize signs of culture stress and some strategies						
for overcoming it						
5. I know some techniques to aid my learning of the host						
language and culture						
6 .I can contrast my own behaviors with those of my hosts						
in important areas (e.g., social interactions, basic routines,						
time orientation, etc.)						
7. I can cite important historical and socio-political factors						
that shape my own culture and the host culture						
8. I can describe a model of cross-cultural adjustment						
stages						
9. I can cite various learning processes and strategies for						
learning about and adjusting to the host culture						
10. I can describe interactional behaviors common among						
Americans in social and professional areas (e.g., family						
roles, team work, problem solving, etc.)						
11. I can discuss and contrast various behavioral patterns						
in my own culture with those in the United States						
Attitude	0 Not compet ent	1	2	3	4	5 Ver y com pete nt
1. I demonstrate willingness to interact with host culture						-20
members						

2. I demonstrate willingness to learn from my hosts, their						
language, and their culture						
3. I demonstrate willingness to try to communicate in						
English and behave in appropriate ways, as judged by my						
hosts						
4. I demonstrate willingness to take on various roles						
appropriate to different situations (e.g., in the family, as a						
volunteer, etc.)						
5. I demonstrate willingness to show interest in new						
cultural aspects (e.g., to understand the values, history,						
traditions, etc.)						
6. I demonstrate willingness to try to understand						
differences in the behaviors, values, attitudes, and styles						
of host members						
7. I demonstrate willingness to adapt my behavior to						
communicate appropriately in the United State (e.g., in						
non-verbal and other behavioral areas, as needed for						
different situations						
8. I demonstrate willingness to reflect on the impact and						
consequences of my decisions and choices on my hosts						
9. I demonstrate willingness to deal with different ways of						
perceiving, expressing, interacting, and behaving						
10. I demonstrate willingness to interact in alternative						
ways, even when quite different from those to which I was						
accustomed and preferred						
11. I demonstrate willingness to deal with the ethical						
implications of my choices (in terms of decisions,						
consequences, results, etc.)						
12. I demonstrate willingness to suspend judgment and						
appreciate the complexities of communicating and						
interacting interculturally						
Cl 21	0	1	2	3	4	5
Skills	Not compet ent	•	_		•	Ver y com
						pete nt
1. I demonstrated flexibility when interacting with						
persons from the host culture.	1	ĺ		1		
2. I adjusted my behavior, dress, etc as appropriate to						

		ı		1		I
4. I used strategies for learning the host language and						
culture.						
5. I demonstrated a capacity to interact appropriately in a variety of different social situations						
6. I used appropriate strategies for adapting to host						
culture and reducing stress.						
7. I used culture-specific information to improve my						
style and personal interaction.						
8. I helped to resolve cross-cultural conflicts and						
misunderstandings when they arose.						
	1	1		1		1
Awareness	0 Not compet ent	1	2	3	4	5 Ver y com pete nt
1. I am aware of differences and similarities across my						
own culture and the host language & culture.						
2. I am aware of how varied situations in the host culture						
required modifying my interactions						
3. I am aware of how host culture members viewed me						
and why.						
4. I am aware of myself as a culturally conditioned						
person with personal habits and preferences.						
5. I am aware of diversity in the host culture (such as						
differences in race, gender age).						
6. I am aware of the dangers of generalizing individual						
behaviors as representative of the whole culture.						
7. I am aware of my choices and their consequences						
(which made me less or more acceptable).						
8. I am aware of my personal values that affected my						
approach to ethical dilemmas and their resolution.						
9. I am aware of my hosts' reactions to me that reflected						
their cultural values.						
10. I am aware of how my values and ethics were						
reflected in specific situations.						
11. I am aware of varying cultural styles and language						
use, and their effect in social & working situations.						
12. I am aware of my own level of intercultural						
development						
13. I am aware of the level of intercultural development						
of those I worked with						
L	i	•				

14. I am aware of how I perceived myself as a			
communicator, facilitator, or mediator, in an			
intercultural situation.			

APPENDIX J:

The Ryff Scales of Psychological Well-Being

Instructions:

The following set of statements deals with how you might feel about yourself and your life as an international student in the host country. Please remember that there are no right or wrong answers.

Choose "1" if you Very Strongly Disagree

Choose "2" if you Strongly Disagree

Choose "3" if you Mildly Disagree

Choose "4" if you are Neutral

Choose "5" if you Mildly Agree

Choose "6" if you Strongly Agree

Choose "7" if you Very Strongly Agree

	1	2	3	4	5	6
	Strongly Disagree	Disagree	Disagree Slightly	Agree Slightly	Agree	Strongly Agree
1. I am, not afraid to voice my opinion,						
even when they are in opposition to the						
opinions of most people.						
2. In general, I feel I am in charge of the situation in which I live.						
3. My decisions are not usually influenced by what everyone else is doing.						
4. The demands of everyday life often get me down.						
5. I tend to worry about what other people think of me.						
6. I do not fit very well with the people and the community around me.						
7. Being happy with myself is more important to me than having others approve of me.						
8. I am quite good at managing the many responsibilities of my daily life.						
9. I tend to be influenced by people with strong opinions.						
10. I often feel overwhelmed by my responsibilities.						

11. I have confidence in my opinions, even if they are contrary to the general consensus.			
12. I generally do a good job of taking			
care of my personal finances and			
affairs.			
13. It's difficult for me to voice my own			
opinions on controversial matters			
14. I am good at juggling my time so			
that I can fit everything in that needs			
to be done.			
15. I often change my mind about			
_ ·			
decisions if my friends or family			
disagree.			
16. I have difficulty arranging my life in			
a way that is satisfying to me.			
17. I judge myself by what I think is			
important, not by the values of what			
others think is important.			
18. I have been able to build a home and			
a lifestyle for myself that is much to			
my liking.			

APPENDIX K:

Multidimensional Scale of Perceived Social Support

Instructions:

While you are at the host country, how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Choose "1" if you Very Strongly Disagree

Choose "2" if you Strongly Disagree

Choose "3" if you Mildly Disagree

Choose "4" if you are Neutral

Choose "5" if you Mildly Agree

Choose "6" if you Strongly Agree

Choose "7" if you Very Strongly Agree

	1 Very Strongly	2 Strongly Disagree	3 Mildly Disagree	4 Neutral	5 Mildly Agree	6 Strongly Agree	7 Very Strongly
1. There is a special person who	Disagree						Agree
is around when I am in need.							
2. There is a special person with							
whom I can share my joys							
and sorrows.							
3. My family really tries to help							
me.							
4. I get the emotional help and							
support I need from my							
family.							
5. I have a special person who							
is a real source of comfort to							
me.							
6. My friends really try to help							
me.							
7. I can count on my friends							
when things go wrong.							
8. I can talk about my problems							
with my family.							
9. I have friends with whom I							
can share my joys and							
sorrows.							

10. There is a special person in				
my life who cares about my				
feelings.				
11. My family is willing to help				
me make decisions.				
12. I can talk about my				
problems with my friends.				