

Effects of Perceived Social Support and Cultural Self-Efficacy on Acculturative Stress of International Postgraduate Students in the United Kingdom

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ABSTRACT

The purpose of the study is to investigate the effects of perceived social support and cultural self-efficacy on acculturative stress of international postgraduate students in the United Kingdom. The study adopted Berry, Kim, Minde & Mok's (1987) acculturative framework on acculturative stress and examined the relationship between the variables. The study hypothesized that perceived social support and cultural self-efficacy would predict lower levels of acculturative stress among students. Postgraduate students in the United Kingdom (N = 76) completed three surveys measuring the variables; Acculturative Stress Scale for International Students, Multidimensional Scale of Perceived Social Support and Cultural Self-efficacy for Adolescents. To evaluate the role of the perceived social support and cultural self-efficacy in determining the acculturative stress level of international students, multiple linear regression was employed. Both independent variables exhibited a significant, negative relationship with acculturative stress ($p < .001$; $p < .01$). Results describe that cultural self-efficacy and perceived social support significantly predicted acculturative stress ($p < .01$). Together, the variables accounted for 22% of the variance in acculturative stress scores (adjusted $R^2 = .22$), with cultural self-efficacy playing a larger role in predicting the dependent variable. Limitations and implications of the study are noted. The findings of the study are discussed in relation to enhancing international students' acculturative experience when relocating to a new environment.

Keywords: *Acculturative Stress, Cultural Self-Efficacy, Perceived Social Support, International Education, Cultural Adjustment, Coping, Migration, International Students.*

The world is rapidly being molded into a shared social space, characterized by diversity and plurality. Due to the forces of globalization, there has been a decline in relevance of geographical borders, causing the emergence of a complex web of interconnectedness. One of

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the most distinctive outcomes of this process is the easier access to educational services worldwide (Cole & Zhou, 2014). As the higher education system becomes increasingly internationalized, a degree from prestigious foreign country holds comparative advantage. The possibility of acquiring linguistic competence, independence, and cultural integration are some factors attracting students to pursue overseas education. Consequently, the number of international students has been dramatically on the rise for the past decade (Ghazarian, 2014; Mahmood, 2014).

Pursuing an international education can be a meaningful and rewarding experience. However, the process of adjusting to a new culture can pose a significant number of challenges (Yusoff, 2012). When individuals of different cultures are brought together in continuous contact, enduring this contact inevitably produces changes in behaviour and thinking among new migrants; this process is termed acculturation. The negative consequences that arise from contact between two distinctive cultural groups, often leading to the reduction of physiological and psychosocial well-being, referred to as 'acculturative stress'. Consequently, this results in the difficulty adapting to a new culture (Berry, Kim, Minde & Mok, 1987; Mahmood, 2014). Acculturative stress can be attributed to a myriad of reasons including communication difficulties (Gallagher, 2013), lack of knowledge of the host culture (Faleel, Foo, Har, Lee & Tam, 2012) and financial challenges (Gebhard, 2012). Furthermore, a study verified several predictors of acculturative stress including rejection, identity threat, cultural incompetence, and homesickness (Chen, Jacques-Tiura, Li, Liu, Yan & Yu, 2014). Compared with other mobile populations, students are especially susceptible to experiencing acculturative stress, as their academic success is dependent upon their ability to adapt to the host culture (Desa, Kadir & Yusoff, 2012).

Acculturative stress places international students at increased risk for developing poor mental and physical health outcomes (Chen, Li, Yu, 2013). Studies suggest that heightened levels of acculturative stress are associated to lowered psychological well-being (Ndika, 2013), lowered self-esteem (Friedman & Saroglou, 2010), sleep deprivation (Hamamura & Laird, 2014) and suicide ideation (Billings, Haboush-Deloye, Oliver & Parker, 2015).

A crucial determinant in overcoming acculturative stress is social support. Social relationships may extend from the intimacies of lovers to the relatively impersonal qualities of a commercial transaction. Perceived social support assesses the recipients' perceptions concerning general availability of support and/or global satisfaction with support provided (Cai, Zhang, Zhou & Zhu, 2013; Pierce, Sarason & Sarason, 1990). Those with high levels of perceived support display attention to supportive behaviour, have a stronger memory for supportive actions and interpret the same behaviours as more supportive than individuals with low levels of perceived social support (Baldwin, 1992).

The behaviours that describe social support are commonly categorized into three types; emotional, instrumental and informational (Bhochhibhoya, Branscum & Dong, 2017).

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Emotional, non-tangible support refers to the actions people take to make someone feel cared for, including expressions of empathy, love, and encouragement. Instrumental support involves providing tangible aid and services and informational support includes providing advice and information, equipping recipients' with problem-solving skills. These various behaviours contribute to improved physical and mental outcomes; increased immunity, decreased cortisol levels and decreased vulnerability against depression, anxiety and suicide ideation (Gerteis & Schwerdtfeger, 2016; Loureiro, Pizeta & Silva, 2016).

Relocation overseas presents both the disruption of established social support networks and the challenge to develop new ones, heightening acculturative stress levels of international students (Chavajay, 2013). However, students' willingness to engage with the larger community by developing academic, social and personal relationships improves adaptation to a new culture.

Self-efficacy is another critical variable determining one's acculturative experience. Bandura (1977) defined self-efficacy as an individual's personal judgment of his or her capacity to successfully perform a task. It is a multidimensional concept, derived from one's sense of personal agency; the ability to exercise control over external stimuli (Bandura, 1994). Self-efficacy helps individuals set goals, invest effort, persist in the face of adversity, recover from setbacks and adapt, therefore, it plays a critical role in protecting persons from negative experiences and psychological and physiological impairment (Ahn & Lee, 2012; Beehr, Christiansen, Hechanova-Alampay & Van, 2002; Lyrakos, 2012; Yusoff, 2012). Additionally, the extent to which persons feel confident about their competence influences their evaluation of a stressor as a threat or a challenge. If people feel they can handle/alter the outcome of a difficult situation, they are able to develop successful coping strategies (Cayirdag, 2012).

Within intercultural contexts, an important measure in predicting one's migration experience is cultural self-efficacy. It is conceptualized as the person's perception of his/her own capability to effectively function in situations characterized by cultural diversity (Arenas, Briones, Caprara, Tabernero & Tramontano, 2009). Cultural self-efficacy predicts the extent migrants perceive themselves as capable of adapting to the receiving culture and maintaining values and identifications of the heritage culture. A high level of cultural self-efficacy is associated with greater social integration, cultural contact, perception of cultural enrichment and higher general self-efficacy (Arenas et al., 2009; Cardinali, Cifatte, Migliorini & Rania, 2012; Du, Li, Lin & Tam, 2015). It increases the ability to exercise control over cultural adaptation, alleviating symptoms of acculturative stress.

The literature suggests that cultural self-efficacy and perceived social support have a negative association to acculturative stress. However, there is a lack of integrative models that exclusively examine the relationship between these three constructs and requires further examination. Only three previous studies have examined cultural self-efficacy as a domain specific measure (Arenas et al., 2009; Cardinali et al., 2012; Du et al., 2015) and the results

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have been inconsistent. Therefore, this study intends to clarify the findings, add to the existing research and provide insight into cultural self-efficacy.

The international students' experiences and concerns during the process of acculturation are important phenomena to evaluate in contemporary international education. By assessing the factors that influence acculturative stress, one can develop an understanding of international students' potential challenges and how they can be assisted during their transition to a new culture.

Berry et al. (1987) model illustrates the multifaceted nature of acculturative stress and highlights the role of social relations and psychological characteristics of an individual in alleviating stress. Therefore, in line with his research, it was assumed that perceived social support would influence the levels of acculturative stress by functioning as a unique microsystem within the students' environment. Similarly, it was believed that cultural self-efficacy would have a negative relationship with acculturative stress. Research suggests that social support may provide encouragement and information, and foster coping and self-esteem, resulting in heightened self-efficacy (Boo, Perrone-McGovern, White & Wright, 2014; Guan & So, 2016). Based on the evidence, the present study predicts perceived social support would play a relatively greater role than stress in predicting acculturative stress.

In this investigation a quantitative research paradigm was employed to get a better perspective on the variables influencing acculturative stress levels. The following hypotheses guided the study:

1. Cultural Self-Efficacy (IV1) will predict lower Acculturative Stress (DV).
2. Perceived Social Support (IV2) will predict lower Acculturative Stress (DV).
3. Perceived Social Support (IV2) will play a greater role than Self-Efficacy (IV1) in predicting Acculturative Stress (DV).

METHODS

Participants

The population of interest for this study comprised of all persons who met the following criteria: 1) an international postgraduate student; 2) pursuing education at a university in the United Kingdom during the academic year 2017-2018; 3) residing in the United Kingdom for a period of less than 12 months.

Employing convenience sampling, data was collected from a total of 76 international postgraduate students of varying ethnicities. Fifty percent of the participants were female ($n = 38$) and fifty percent of the participants were male ($n = 38$), between the ages of 21-38 ($M = 25.49$; $S.D = 3.79$).

Measures

The measures adopted for the present study include three scales.

1. **Multidimensional Scale of Perceived Social Support (MSPSS)**. The scale consisting of 12 items is designed to measure perceptions of support from 3 sources:

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Family, Friends and Significant Other (4 items for each subscale), found in Appendix A (Dahlem, Farley, Zimet & Zimet, 1988). Each item is rated on a 7 point likert scale ranging from ‘*very strongly disagree*’ (1) to ‘*very strongly agree*’ (7). The mean score of the 12 items are calculate, resulting in a range of 1-7. Higher scores are indicative of greater perceived social support. Cronbach’s coefficient alpha for the MSPSS was reported to be 0.94.

2. **Cultural Self-efficacy for Adolescents (CSE-A).** The scale consists of 25 items measuring five factors; self-efficacy in mixing satisfactorily with other cultures (8 items), in understanding different ways of life (5 items), in processing information from other cultures (5 items), in coping with homesickness and separation (4 items) and in learning and understanding a foreign language (3 items), found in Appendix B (Arenas, Briones, Caprara, Taberero & Tramontano, 2009). Each item is rated on a 5 point likert scale, ranging from ‘*cannot do at all*’ (1) to ‘*certainly can do*’ (5). The mean score of the 25 items are calculated, resulting in a range of 1-5. Higher scores are suggestive of greater cultural self-efficacy. The current study illustrated a Cronbach’s coefficient alpha value of 0.91.
3. **Acculturative Stress Scale for International Students (ASSIS).** The scale consists of 36 items comprising of 7 subscales, identified to be major contributing factors to acculturative stress, including perceived discrimination (8 items), homesickness (4 items), perceived hate/rejection (5 items), guilt (2 items), fear (4 items), stress due to change/ cultural shock (3 items) and nonspecific concerns (10 items), found in Appendix C (Asrabadi & Sandhu, 1994). Each item is measured on a 5 point likert scale, ranging from ‘*Strongly disagree*’ (1) to ‘*Strongly agree*’ (5). The mean score of the 36 items are calculated, producing a range of 36- 180. Higher scores are indicative of greater acculturative stress. The present study exhibited a Cronbach’s coefficient alpha of 0.94.

Procedure

A survey was distributed online; participants were presented with the web-link of the study, taking them to a third party secure server. An information sheet was provided, outlining the purpose of the study, instructions regarding procedure, and a consent form. Participants if consenting were required to provide their demographic details. They then proceeded to begin the study consisting of three questionnaires. The medium of language used in the study was English.

Participants were asked to self-administer the questionnaires; this has proved to circumvent experimenter bias (Barros, Carrasco, March, Gonzalez-Porras, Lobos & Lozano, 2016). The order in which the scales were introduced as well as the items pertaining to each scale were counterbalanced to prevent any bias potentially related to order. On completion, persons were provided the option of withdrawing their data and given contact information of the researcher for further enquiries.

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The entire study took, on average, approximately 8 minutes to complete. Once the data was collected, it was transferred to SPSS version 24.0, for statistical analysis.

Design

A quantitative cross-sectional research design was adopted for this study. To test the hypotheses, initially Pearson's correlational analysis was done to investigate the relationship between the independent variables and the dependent variable. Multiple linear regression was conducted to examine the ability of perceived social support and cultural self-efficacy in predicting acculturative stress.

RESULTS

Fidell and Tabachnick's (2015) equation, $N \geq 50 + 8M$, indicated that there were a sufficient number of participants employed for the study, meeting the initial assumption of sample size. The scores of the criterion variable were normally distributed and by eye-balling the box and whisker plot, no outliers were identified (Dancey & Reidy, 2011). However when viewing the same plot for scores of perceived social support, 2 outliers were identified; scores of participant 33 and 3 were adjusted to the next lowest value. The original range of 3.25-7 ($M = 5.566$; $S.D = .96$) was altered to the new range of 3.33-7 ($M = 5.568$; $S.D = .96$). This method of adjusting the scores did not have an undue influence on the mean value, nor did it alter the relationship between the variables significantly. Through visual examination of the normal probability plot and scatterplot, the assumptions of homoscedasticity, linearity and normality were met (Cramer & Howitt, 2014).

Table 1 illustrates the main interaction between the constructs. The mean scores of ASSIS, CSE-A and MSPSS suggest that, on average the participants in the present study experienced lower levels of acculturative stress and higher levels of perceived social support and cultural self-efficacy.

Table 1, Descriptive Statistics of ASSIS, CSE-A and MSPSS

	Mean	SD	N
Acculturative Stress	78.71	22.28	76
Cultural Self-Efficacy	4.18	.43	76
Perceived Social Support	5.57	.96	76

Bivariate analysis indicated that both the independent variables exhibited a moderately negative, linear and significant correlation to acculturative stress, $r(74) = -.42, p < .001$; $r(74) = -.33, p < .01$. Perceived social support and cultural self-efficacy displayed a positive relationship, however, the results were not significant; $r(74) = .18, p > .05$, verifying the assumption of multicollinearity.

The study used multiple linear regression to evaluate the predictive value of the independent variables. Results indicate that the association between the explanatory variables and the criterion variable is moderately strong ($Multiple R = .49$). Cultural self-efficacy and perceived

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social support made statistically significant contributions, $F(2, 73) = 11.6, p < .001$, together accounting for 22% of the variance in acculturative stress (*adjusted* $R^2 = .22$).

The standardized regression coefficients depict that cultural self-efficacy was a relatively stronger predictor than perceived social support ($\beta = -.37, p < .01$ vs. $\beta = -.27, p < .05$) in determining acculturative stress. When analyzing the part correlations, it was seen that cultural self-efficacy explained 13.18%, while perceived social support explained 6.86% of the total variance in acculturative stress, independent of each other.

Results support the hypothesis that perceived social support and cultural self-efficacy predict lower levels of acculturative stress. However, findings contradicted hypothesis 3 that predicted perceived social support to play a greater role than cultural self-efficacy in determining acculturative stress of international students.

DISCUSSION

Research in the domains of acculturation and adaptation, as sampled and outlined in this study, has provided consistent and potentially applicable findings. In line with previous research (Jibeen, 2011), it was confirmed in the present study that social support is a powerful, effective coping resource for persons experiencing stressors including adjusting to a new culture. Social epidemiological studies suggest that perceived social support may enhance a sense of belonging, companionship and self-worth, improving immigrants' mental health (Alegria, Mulvaney-Day & Sribney, 2007). A study found that perceived social support facilitated international students' socio-cultural adjustment process and it was stated that sources of support were linked to cultural empathy, impersonal endeavors and cultural relatedness (Yusoff, 2012). Therefore, social support may allow an individual to accept another culture, make oneself understood and become accustomed to the pace of university life, reducing their distress (Savicki 2010; Yusoff, 2012).

The study confirmed the importance of self-efficacy as a personal coping resource, playing a role in the larger process of cognitive appraisal of stressors. Specifically, cultural self-efficacy may promote cultural competence in dynamic ways. Cultural participation and engagement in foreign environments, enhances cross-cultural skill development and personal growth, furthering cultural competency (Larimer, Lee, Neighbors & Pederson, 2011). Cultural self-efficacy also has a positive influence on relationships with people from other backgrounds; students with greater cultural self-efficacy are more willing to mix with students from diverse cultures as well as the host society (Arenas et al., 2009; Bandura, 2006; Gasser & Li, 2005). Furthermore, international students that foster positive beliefs about themselves may be less vulnerable to experiencing the negative effects of acculturation.

Cultural self-efficacy played a greater role in determining acculturative stress than perceived social support, contradicting hypothesis 3. A possible explanation for this is because perceived support is influenced by the characteristics of the recipient including appraisals of self. For example, negative thoughts about social relations are thought to overlap with

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negative thoughts of the self (Barclay, Schmeid & Williams, 2004; Pierce, Sarason & Sarason, 1990). Har, Lee, Pook and Tam (2011) stated that people with high self-esteem expect others to like them and perceive high social support. Alternatively individuals with low self-esteem may perceive others' behaviours more negatively, resulting in social avoidance. Prior research has suggested that having higher levels of self-efficacy led to better perceptions of support from others (Green & Rodgers, 2002).

Onn and Narayanan (2016) argued that efficacious individuals are able to deal with stressors because they believe they have control over their lives and rely on internal forces to cope rather than relying on others for support. Furthermore, longitudinal research posits self-efficacy to be relatively stable over time, while external factors play modest roles in alleviating stress (LaRocca, 2010). Alternatively, perceptions about social support may differ with socioeconomic status, marital status and social involvement, reflecting some level of instability (Cornman, Goldman, Lin, Lynch & Weinstein, 2004).

Cultural differences exist with respect to the perception of social support. Collectivist cultures are more cautious in seeking help because they share the cultural assumption that individuals should not burden their social networks (Kim, Sherman & Taylor, 2008). Approximately 48% of the current sample consisted of Asian international students. Students from this culture may prefer to not disclose their stress and downplay negative consequences due to fear and stigmatization (Adibi et al., 2014), consequently not depending strongly on social support as a coping resource.

Although 22% of the variance in acculturative stress was accounted for by cultural self-efficacy and perceived social support, the remaining 78% could be attributed to a number of alternative factors. Factors that pertain to the society of settlement may influence acculturative experiences. U.K endorses a multicultural ideology and accepts cultural pluralism. Additionally, studies reported that international students who had been residing in the host country for over a period of three months exhibited lower levels of acculturative stress (Aune, Hendrickson & Rosen, 2011; Ayoob, Jan & Singh, 2011). The present sample exceeded the three-four month duration, explaining lower acculturative stress scores. Therefore, students may have felt more settled and accepted in their new environment.

The study has certain limitations that should be acknowledged. Causal relationships between cultural self-efficacy, perceived social support and acculturative stress cannot be drawn because of the cross-sectional design of the study. Integration of longitudinal or experimental methods can account for situational factors and evaluate patterns of individual differences that emerge over time.

Another limitation of the study is that self-report measures were employed to collect data, threatening internal validity. Future studies may use multiple assessment methods to strengthen the validity of the findings. To further strengthen results, larger sample size may

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be employed. Majority of the sample population ($n = 72$) was selected from the University of Glasgow, limiting generalizability. Future studies could address this problem by gaining access to a wide variety of colleges throughout the United Kingdom, using varied mediums. Exploration of additional variables such as social demographics, culture and personality factors, will allow for further development of theories that describe the relationship of acculturative stress to perceived social support and cultural self-efficacy.

Despite the limitations, this study made several contributions. It confirmed Berry et al. (1987) framework of acculturative stress and validated the CSE-A scale developed by Arenas et al., (2009), adding to the existing literature on acculturation. The current investigation provided greater insight into the relationship between the three constructs and the findings support inclusion of social support and self-efficacy in interventions aiming to reduce students' stress. For example, initiating cross-cultural group work may not only provide international students with the opportunity to interact with host nationals, but also raise awareness and promote sensitivity towards different cultures (Beehr et al., 2002). Group counseling can also help these students meet with others who may have similar backgrounds and/or experiences; this may serve to increase their social networks, foster a sense of community and reduce feelings of alienation (Boafo-Arthur, 2014). University supervisors and teachers can play integral roles in changing self-efficacy beliefs among international students, for instance, providing positive feedback on performance encourages these beliefs (Breso, Salanova & Schaufeli, 2011). Understanding the acculturative stress levels of the international students may serve as a guide to establish programs to reduce distress and shape policies aimed at improving the support services.

Globalization and migration mark the rhythm of contemporary modern life. The acculturative experience, along with its exciting opportunities and unprecedented challenges, plays an imperative role in determining immigrants' health and well-being. This has far-reaching implications for academics, community agencies and governments who are concerned with the welfare of migrants worldwide in terms of practice, research and policy implementation (Kuo, 2014; Lee, 2017). The present study attempts to address these issues and stimulate further dialogue into the adaptation process of migrants. Conducting similar studies could serve as a tool to examine whether strategies need to be employed to enhance cultural self-efficacy and perceived social support in a variety of settings. This could influence socio-economic and cultural policy to improve nations' well-being and on a more fundamental level, promote a better quality of life for individuals.

REFERENCES

- Adibi, P., Afsar, H., Feizi, A., Keshteli, A. H., Mohammadi, N., Roohafza, H. R. & Taslimi, M. (2014). What's the role of perceived social support and coping styles in depression and anxiety? *Journal of Research in Medical Sciences*, 19 (10), 944-949.

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- Ahn, H. S., Bong, M., Butz, A., & Usher, E. L. (2016). Cultural differences in the understanding of modelling and feedback as sources of self-efficacy information. *The British Journal of Educational Psychology*, *86* (1), 112-136, doi: 10.1111/bjep.12093.
- Ahn, S., & Lee, D. L. (2012). Discrimination against Latina/os: A meta-analysis of individual-level resources and outcomes. *Counseling Psychologist*, *40*(1), 28- 65. doi: 10.1177/0011000011403326
- Alegria, M., Mulvaney-Day, N. E. & Sribney, W. (2007). Social cohesion, social support, and health among Latinos in the United States. *Social Science and Medicine*, *64* (2), 477-495. doi: 10.1016/j.socscimed.2006.08.030
- Arenas, A., Briones, E., Caprara, G. V., Tabernero, C., & Tramontano, C. (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
- Asrabadi B.R., & Sandhu D.S. (1998). An acculturative stress scale for international students: A practical approach to stress management. In C. P. Zalaquett & R. J. Wood (Eds.), *Evaluating stress: A book of resources*, (Vol. 2, pp. 1-33).
- Aune, R. K., Hendrickson, B., & Rosen, D. (2011). An analysis of friendship networks, social connectedness, homesickness, and satisfaction levels of international students. *International Journal of Intercultural Relations*, *35*(3), 281-295. doi: 10.1016/j.ijintrel.2010.08.001
- Ayoob, M., Jan, M. & Singh, T. (2011). Length of Stay, Acculturative Stress, and Health among Kashmiri Students in Central India. *Pakistan Journal of Social and Clinical Psychology*, *9*, 11-15.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*, 191-215.
- Bandura, A. (1994). *Self-efficacy*. New York: Academic Press. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behaviour* (Vol. 4, pp. 71-81). New York: Academic Press.
- Bandura, A. (2006). *Self-efficacy beliefs of adolescents*. Greenwich, CT: Information Age Publishing.
- Barclay, L., Schmied, V., & Williams, P. (2004). Defining social support in context: A necessary step in improving research, intervention and practice. *Qualitative Health Research*, *14*, 942- 960.
- Barros, M. B., Carrasco, E., March, J. R., Gonzalez-Porrás, J. R., Lobos, J. M., & Lozano, F. (2016). Self-administered versus interview-based questionnaires among patients with intermittent claudication: Do they give different results? A cross-sectional study. *Sao Paulo Medical Journal*, *134* (1), 63-69. doi: 10.1590/1516-3180.2015.01733009
- Beehr T. A., Christiansen N. D., Hechanova-Alampay R., & Van Horn R. K. (2002). Adjustment and strain among domestic and international student sojourners: A longitudinal study. *School Psychology International*, *23*, 458–474.
- Berry, J.W., Kim. U., Minde. T. & Mok. D. (1987). Comparative studies of acculturative stress. *International Migration Review*, *21*, 491-511.

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- Bhochhibhoya, A., Branscum, P., & Dong, Y. (2017). Sources of Social Support among International College Students in the United States. *Journal of International Students*, 7 (3), 671-686. doi: 10.5281/zenodo.570032
- Billings, H. N., Haboush-Deloye, A. L., Oliver, T. L., & Parker, A. (2015). Acculturative Stress in Suicidal Youth. *Journal of Community Psychology*, 43(5), 611-618. doi: 10.1002/jcop.21705
- Boo, J. N., Perrone-McGovern, K. M., White, A. V., & Wright, S. L. (2014). Influential Factors in Academic and Career Self-Efficacy: Attachment, Supports, and Career Barriers. *Journal of Counseling and Development*, 92, 36-46.
- Bresó, E., Salanova, M., & Schaufeli, W.B. (2011). Can a self-efficacy-based intervention decrease burnout, increase engagement, and enhance performance? A quasi-experimental study. *Higher Education*, 61(4), 339–355.
- Cai, T., Zhang, B., Zhou, X., & Zhu, H. (2013). Perceived social support as moderator of perfectionism, depression, and anxiety in college students. *Social Behavior and Personality: An International Journal*, 41, 1141-1152. Retrieved from doi: <https://doi.org/10.2224/sbp.2013.41.7.1141>
- Cardinali, P., Cifatte, C., Migliorini, L., & Rania, N. (2012). Adolescent Adjustment and Cultural Self-Efficacy. *Problems of Psychology in the 21st Century*, 1, 59-71.
- Cayirdag, N. (2012). *Perceived social support, academic self-efficacy, and demographic characteristics as predictors of perceived stress among Turkish graduate students in the USA* (Doctoral dissertation, Middle East Technical University, Turkey). Retrieved from doi: 10.1.1.632.8949
- Chavajay, P. (2013). Perceived social support among international students at a U.S. university. *Psychological Reports*, 112(2), 667-677. Retrieved from doi:10.2466/17.21.PR0.112.2.667-677
- Chen, X., Li, S., & Yu, B. (2013). Globalization, cross-culture stress and health. *Chinese Journal of Epidemiology*, 35(3), 338-341.
- Cole, D., & Zhou, J. (2014). Do diversity experiences help college students' become more civically minded? Applying Banks' multicultural education framework. *Innovative Higher Education*, 39 (2), 109-121. doi: 10.1007/s10755-013-9268-x
- Cornman, J. C., Goldman, N., Lin, H. S., Lynch, S. M., & Weinstein, M. (2004). Stability and Change in the Perceived Social Support of Older Taiwanese Adults. *The Journal of Gerontology*, 59 (6), 1, 350-357. Retrieved from <https://doi.org/10.1093/geronb/59.6.S350>
- Cramer, D., & Howitt, D. (2014). *Introduction to Research Methods in Psychology*. Harlow, Essex: Pearson Education Limited.
- Dahlem, N. W., Farley, G. K., Zimet, G. D., & Zimet, S. G. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.
- Dancey, C. P., & Reidy, J. (2011). *Statistics without maths for psychology: Using SPSS for Windows*. New York: Prentice Hall.

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- Desa, A., Kadir, N. B. A., & Yusoooff, F. (2012). Acculturative Stress among International Postgraduate Students at UKM. *Procedia-Behavioral and Social Sciences*, 59, 364-369. Retrieved from <https://doi.org/10.1016/j.sbspro.2012.09.287>
- Dillon, F. R., Ibanez, G. E., & Rosa, M. D. L. (2013). Acculturative Stress and Diminishing Family Cohesion among Recent Latino Immigrants. *Journal of Immigrant and Minority Health*, 15 (3), 484-491. doi: 10.1007/s10903-012-9678-3
- Du, H., Li, X., Lin, D. & Tam, C. C. (2015). Collectivist Orientation Acculturative Stress, Cultural Self-Efficacy, and Depression: A Longitudinal Study among Chinese Internal Migrants. *Community Mental Health Journal*, 51, 239-248.
- Faleel, S.F., Foo, Y. C., Har, W. M., Lee, T. H., & Tam, C.L. (2012). Stress, Perceived Social Support, Coping Capability and Depression: A Study of Local and Foreign Students in the Malaysian Context. *International Journal of Humanities and Social Sciences*, 6 (1), 1-7.
- Folkman, S., & Lazarus, R. S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Friedman, M., & Saroglou, V. (2010). Religiosity, psychological acculturation to the host culture, self-esteem and depressive symptoms among stigmatized and nonstigmatized religious immigrant groups in Western Europe. *Basic and Applied Social Psychology*, 32, 185-195. Retrieved from <http://dx.doi.org/10.1080/01973531003738387>
- Gallagher, H. C. (2013). Willingness to Communicate and Cross-cultural Adaptation: L2 Communication and Acculturative Stress as Transaction. *Applied Linguistics*, 34(1), 53–73. doi:10.1093/applin/ams023
- Gasser, M. B., & Li, A. (2005). Predicting Asian international students' sociocultural adjustment: A test of two mediation models. *International Journal of Intercultural Relations*, 29 (5), 561-576.
- Gebhard, J. G. (2012). International Students' Adjustment Problems and Behaviors. *Journal of International Students*, 2 (2), 184–193.
- Gerteis, A. K., & Schwerdtfeger, A. R. (2016). When rumination counts: Perceived social support and heart rate variability in daily life. *Psychophysiology*, 53 (7), 1034-1043. doi: 10.1111/psyp.12652
- Ghazarian, P. G. (2014). Changing destinations: Ideal attraction and actual movement of cross-border tertiary students from mainland China. *The International Education Journal: Comparative Perspectives*, 13 (1), 1-16.
- Green, B. L., & A. Rodgers. (2002). Determinants of social support among low-income mothers: A longitudinal analysis. *American Journal of Community Psychology*, 29(3), 419–442. Retrieved from <http://dx.doi.org/10.1023/A:1010371830131>.
- Guan, M., & So, J. (2016). Influence of Social Identity of Self-Efficacy Beliefs through Perceived Social Support: A Social Identity Theory Perspective. *Communication Studies*, 67 (5), 588-604. Retrieved from doi:10.1080/10510974.2016.1239645
- Hamamura, T., & Laird, P. G. (2014). The Effect of Perfectionism and Acculturative Stress on Levels of Depression Experienced by East Asian International Students. *Journal of Multicultural Counseling and Development*, 42 (4)205-217. doi: 10.1002/j.2161-1912.2014.00055.x

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- Har, W., Lee, T. H., Pook, W. L., & Tam, C. L. (2011). Perceived Social Support and Self-Esteem towards Gender Roles: Contributing Factors in Adolescents. *Asian Social Science*, 7 (8), 49-58. doi: <http://dx.doi.org/10.5539/ass.v7n8p49>
- Jibeen, T. (2011). Moderators of Acculturative Stress in Pakistani Immigrants: The role of Personal and Social Resources. *International Journal of Intercultural Relations*, 35, 523-533. doi:10.1016/j.ijintrel.2011.04.002
- Kim, H. S., Sherman, D. K., & Taylor, S. E. (2008). Culture and social support. *American Psychologist*, 63, 518-526.
- Kuo, B. C. H. (2014). Coping, acculturation, and psychological adaptation among migrants: a theoretical and empirical review and synthesis of the literature. *Health Psychology and Behavioral Medicine*, 2 (1), 16-33. doi: 10.1080/21642850.2013.843459
- Larimer, M. E., Lee, C. M., Neighbors, C., & Pederson, E. R. (2011). Measuring Sojourner Adjustment among American students studying abroad. *International Journal of Intercultural Relations*, 35 (6), 881-889. doi: 10.1016/j.ijintrel.2011.06.003
- LaRocca, R. (2010). *Stability of self-efficacy and self-concept in young children* (Doctoral dissertation). Retrieved from <http://fordham.bepress.com/dissertations/AAI3407468>.
- Lee, J. S. (2017). Challenges of International Students in a Japanese University: Ethnographic Perspectives. *Journal of International Students*, 7 (1), 73-93.
- Loureiro, S. R., Pizeta, F. A., & Silva, A. P. C. (2016). Stressors and Perceived Social Support in Women/Mothers with Depression. *Psico-USF*, 21 (3), 583-594. <http://dx.doi.org/10.1590/1413-82712016210312>
- Lyrakos, D. G. (2012). The Impact of Stress, Social Support, Self-Efficacy and Coping on University Students, a Multicultural European Study. *Scientific Research*, 3(2), 143-149.
- Mahmood, H. (2014). *An Analysis of Acculturative Stress, Sociocultural Adaptation, and Satisfaction among International Students at a Non-Metropolitan University* (Doctoral Dissertation). Western Kentucky University, Kentucky.
- Ndika, N. (2013). A Pilot Study on Nigerians in America and Their Coping Strategies. *SAGE Open*, 1-8. doi: 10.1177/2158244013515687
- Onn, A. C. W., & Narayanan, S. S. (2016). The Influence of Perceived Social Support and Self-Efficacy on Resilience among first year Malaysian Students. *Kajian Malaysia*, 34 (2), 1-23. <http://dx.doi.org/10.21315/km2016.34.2.1>
- Pierce, G. R., Sarason, I. G., & Sarason, B. R. (1990). General and relationship-based perceptions of social support: Are two constructs better than one? *Journal of Personality and Social Psychology*, 61, 1028–1039.
- Savicki, V. (2010). Implications of early sociocultural adaptation for study abroad students. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 205-223.
- Yusoff, Y.M. (2012). International Students' Adjustment in Higher Education: Relation between Social Support, Self-Efficacy and Socio-Cultural Adjustment. *Australian Journal of Business and Management Research*, 1(1), 1-15.

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APPENDIX A

Multidimensional Scale of Perceived Social Support (MSPSS)

(Zimet, Dahlem, Zimet & Farley, 1988)

Very Strongly Disagree = 1

Strongly Disagree = 2

Mildly Disagree = 3

Neutral = 4

Mildly Agree = 5

Strongly Agree = 6

Very Strongly Agree = 7

Table A1

MSPSS Scale

	Items	1	2	3	4	5	6	7
1.	There is a special person who 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.							

APPENDIX B

Cultural Self-efficacy for Adolescents (CSE-A)

(Arenas, Briones, Caprara, Tabernero & Tramontano, 2009)

Cannot do at all = 1

Mostly cannot do = 2

Neutral = 3

Mostly can do = 4

Certainly can do = 5

Table A2

CSE-A Scale

	Items	1	2	3	4	5
1.	Realize what I know about that culture.					
2.	Use the information I have on that culture to understand people from that culture.					
3.	Understand what I am being told.					
4.	Learn a language different from my native language.					

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	Items	1	2	3	4	5
5.	Overcome nostalgia for my friends.					
6.	Make new friends.					
7.	Ask information on terms related to that culture.					
8.	Mix with classmates from different cultures from mine.					
9.	Take part in social activities of that culture.					
10.	Appreciate the art of different cultures.					
11.	Enjoy the activities of the people from that culture.					
12.	Overcome homesickness.					
13.	Work with persons of the same sex from different countries.					
14.	Understand other religious beliefs.					
15.	Understand how relationships function in different cultures.					
16.	Work with persons of the opposite sex from different countries.					
17.	Understand family systems different from mine.					
18.	Overcome nostalgia for my family.					
19.	Create topics of conversation with people from different cultures.					
20.	Appreciate the music of different cultures.					
21.	Maintain a conversation with people from different cultures.					
22.	Speak a language different from my native language.					
23.	Make myself understood when speaking to people from different cultures.					
24.	Overcome loneliness.					
25.	Understand a language different from my native language.					

APPENDIX C

Acculturative Stress Scale for International Students (ASSIS)
(Asrabadi & Sandhu, 1994)

Strongly Disagree = 1

Mildly Disagree = 2

Unsure = 3

Mildly Agree = 4

Strongly Agree = 5

Table A3

ASSIS Scale

	Items	1	2	3	4	5
1.	I feel that my people are discriminated against.					
2.	I am treated differently because of my race.					
3.	I am treated differently because of my color.					
4.	Many opportunities are denied to me.					
5.	I am treated differently in social situations.					
6.	Others are biased toward me.					
7.	I feel low because of my cultural background.					
8.	I feel that my status in this society is low due to my cultural background.					
9.	I don't feel a sense of belonging here.					
10.	I feel that I receive unequal treatment.					

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11.	I am denied what I deserve.						
12.	I feel angry that my people are considered inferior here.						
13.	I feel some people don't associate with me because of my ethnicity.						
14.	Homesickness bothers me.						
15.	I feel sad living in unfamiliar surroundings.						
16.	I miss the people and country of my origin.						
17.	I feel sad leaving my relatives behind.						
18.	People show hatred toward me nonverbally.						
19.	People show hatred toward me verbally.						
20.	People show hatred me through actions.						
21.	Others are sarcastic toward my cultural values.						
22.	Others don't appreciate my cultural values.						
23.	I fear for my personal safety because of my different cultural background.						
24.	I feel insecure here.						
25.	I frequently relocate for fear of others.						
26.	I generally keep a low profile due to fear.						
27.	I feel uncomfortable to adjust to new foods.						
28.	Multiple pressures are placed on me after migration.						
29.	I feel uncomfortable to adjust to new cultural values.						
30.	I feel guilty to leave my family and friends behind.						
31.	I feel guilty that I am living a different lifestyle here.						
32.	I feel nervous to communicate in English.						
33.	I feel intimidated to participate in social activities.						
34.	It hurts when people don't understand my cultural values.						
35.	I feel sad to consider my people's problems.						
36.	I worry about my future for not being able to decide whether to stay here or to go back.						

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Conflict of Interest

The author declares this paper to not bear any conflict of interest.

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