



***EFFECT OF EDUCATIONAL INTERVENTION IN REDUCING
ACCULTURATIVE STRESS AMONG NEW INTERNATIONAL
POSTGRADUATE STUDENTS IN PUBLIC UNIVERSITIES IN MALAYSIA***

MUSHEER ABDULWAHID ABDO ALJABERI

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**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

December 2019

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DEDICATION

This work is dedicated to my beloved father, mother, brothers and sisters who always give me unending support and unconditional love. Jazah Ahmed, you are my best friend and lovely wife forever. My son Bashar and my daughter Miral you are the light of my life. I couldn't have made it without you. I hope you realize how I love and proud of all of you.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment
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Chairman : Associate Professor Muhammad Hanafiah Juni, PhD
Faculty : Medicine and Health Sciences

With the increasing number of international students joining Malaysian universities, acculturative stress resulting from their attempts to adjust to the culture of the host country is one of the most challenging issues that affect their life in a general and academic career in particular. Therefore, it is necessary for international students to receive better orientation, education and culturally appropriate health services. Despite the importance of this research topic, a few studies have been conducted among international postgraduate students in Malaysian public universities and reported their experience of acculturative stress and adjustment difficulties to the host country.

The main aim of the current study was to develop, implement and evaluate the effects of an educational intervention on the acculturative stress, adjustment and intention to drop out among new international postgraduate students joining Malaysian public universities in the first semester of their academic year of 2017/2018. The study adopted an experimental quantitative research approach, specifically a cluster randomized controlled trial design. A randomization method was employed to allocate the universities to the intervention group (five universities) and to the control group (five universities), and the students were randomly recruited for the two groups. The study used a valid and reliable questionnaire and the primary outcome is acculturative stress while the secondary outcomes are adjustment and intention to drop out of university. The data were collected at three-time points, baseline (Time 1) before the intervention and immediately post-intervention (Time 2) and three- month follow-up (Time 3). Finally, the data were managed and analyzed using descriptive statistics, chi-square, independent T-test (Mann-Witney U test) and General Estimating Equations (GEE) to evaluate the effect of the educational intervention.

The results of the current study showed that at baseline, the majority of international postgraduate students (78.5 %) reported their experience of moderate levels of acculturative stress, while 12.1 % of them experienced a higher level. However, 50.96 % of the students were moderately going through social difficulties and 16.28 % of them experienced a higher level of such difficulties. Similarly, while 42.72 % of the participants experienced a moderate level of psychological adjustment and 30.65% of them reported their experience at a low level, 50.9 % of them held intentions to withdraw from the university. Moreover, there were no significant differences between the intervention and control groups in terms of the participants' acculturative stress, adjustment and intention to drop out ($P > 0.05$) at the baseline. The results obtained from the GEE analysis indicated a significant difference between the intervention and control groups at the post-intervention and three-month follow up in terms of the participants' acculturative stress, adjustment and intention to drop out.

The results of the GEE analysis illustrated a statistically significant effect of the implemented educational intervention, time and group with time interaction on acculturative stress, adjustment and intention to drop out at the three-time points with the P value of < 0.01 . Testing the model effect showed significant effects within groups across the three-time points, which called for further analysis of the differences within each group. The results revealed that the level of acculturative stress and intention to drop out of university reduced significantly within the intervention group from the baseline (T1) to post-intervention (T2), from the post-intervention to the three-month follow up (T3) and from T1 to T3 ($p < 0.001$), while the socio-cultural and psychological adjustment increased significantly. For the control group, the level of acculturative stress and intention to drop out from university increased significantly from T1 to T2, from T2 to T3 and from T1 to T3 ($p < 0.001$), whereas the socio-cultural and psychological adjustment significantly decreased.

The results of the current study indicate that the educational intervention was effective in reducing the level of acculturative stress and intention to drop out and increasing the level of socio-cultural and psychological adjustment among new international postgraduate students in Malaysian public universities.

Keywords: International postgraduate students, acculturative stress, adjustment, intention to drop out, education intervention.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KEBERKESANAN INTERVENSI PENDIDIKAN UNTUK
MENGURANGKAN TEKANAN AKULTRATIF ANTARA PELAJAR-
PELAJAR ANTARABANGSA BARU DALAM UNIVERSITI AWAM DI
MALAYSIA**

Oleh

MUSHEER ABDULWAHID ABDO ALJABERI

Disember 2019

Pengerusi : Profesor Madya Muhammad Hanafiah Jun, PhD
Fakulti : Perubatan dan Sains Kesihatan

Semakin ramai pelajar antarabangsa memasuki universiti-universiti di Malaysia, tekanan akulturatif yang dialami semasa mereka ingin menyesuaikan diri dengan budaya negara tuan rumah merupakan salah satu isu yang paling mencabar, yang memberi kesan kepada kehidupan mereka terutamanya dalam kerjaya akademik. Maka, adalah amat perlu untuk pelajar antarabangsa menerima pendidikan orientasi dan perkhidmatan kesihatan yang bersesuaian dengan budaya negara ini. Walaupun topik penyelidikan ini penting, tetapi tidak banyak kajian yang telah dijalankan di kalangan pelajar pascasiswazah antarabangsa di universiti awam Malaysia untuk melaporkan pengalaman mereka mengenai tekanan akulturatif dan kesukaran yang mereka hadapi untuk menyesuaikan diri di negara tuan rumah.

Matlamat kajian ini adalah untuk membangunkan, melaksanakan dan Menilai keberkesanan satu intervensi pendidikan terhadap tekanan akulturatif, penyesuaian diri dan niat untuk menarik diri di kalangan pelajar pascasiswazah antarabangsa yang baru menyertai universiti awam Malaysia pada semester pertama mereka dalam tahun akademik 2017/2018. Kajian ini menggunakan pendekatan penyelidikan kuantitatif eksperimen, khususnya reka bentuk kajian terkawal secara rawak berkelompok. Kaedah rawak digunakan untuk memperuntukkan universiti-universiti ke dalam kumpulan intervensi (lima universiti) dan kumpulan kawalan (lima universiti), dan pelajar dari universiti direkrut secara rawak untuk kedua-dua kumpulan ini. Kajian ini menggunakan soal selidik yang sah dan boleh dipercayai untuk mengumpulkan data. Hasil utama kajian ini ialah tekanan akulturatif, manakala hasil kedua ialah penyesuaian diri dan niat untuk menarik diri dari universiti. Data telah Dikumpulkan tiga titik masa, iaitu peringkat permulaan (Masa 1, T1) sebelum intervensi, sejeurus selepas intervensi (Masa 2, T2) dan Susulan

selepas tiga bulan (Masa 3, T3). Akhir sekali, data telah diurus dan dianalisis dengan menggunakan statistik deskriptif, khi kuasa dua, ujian t tak bersandar (Mann-Witney U test) dan General Estimating Equations (GEE) untuk menilai keberkesanan intervensi pendidikan.

Keputusan kajian ini menunjukkan bahawa pada peringkat awal, majoriti (78.5%) pelajar pascasiswazah antarabangsa melaporkan mereka mengalami tahap tekanan akulturatif yang sederhana, manakala 12.1% daripadanya mengalami tahap tekanan yang lebih tinggi. Walau bagaimanapun, 50.96% pelajar sedang mengalami kesukaran social yang sederhana, manakala 16.28% daripadanya mengalami tahap kesukaran yang lebih tinggi. Di dalam aliran yang sama, didapati 42.72% peserta mengalami tahap penyesuaian psikologi yang sederhana dan 30.65% peserta mengalami tahap penyesuaian psikologi yang rendah. Terdapat 50.9% pelajar pascasiswazah antarabangsa baru mempunyai niat untuk menarik diri dari universiti. Selain itu, tidak terdapat perbezaan yang signifikan antara kumpulan intervensi dan kawalan dari segi tekanan akulturatif, penyesuaian diri dan niat untuk menarik diri ($P > 0.05$) pada peringkat permulaan. Keputusan yang diperolehi daripada analisis GEE menunjukkan perbezaan yang signifikan antara kumpulan intervensi dan kawalan selepas intervensi pendidikan pada pasca-intervensi dan susulan tiga bulan segi tekanan akulturatif, penyesuaian diri dan niat untuk menarik diri.

Berdasarkan hasil analisis GEE, intervensi pendidikan yang dilaksanakan, masa dan interaksi masa dan kumpulan pada tekanan akulturatif, penyesuaian diri dan niat untuk menarik diri pada tiga titik masa telah menunjukkan kesan yang signifikan secara statistik dengan nilai $P < 0.01$. Pengujian kesan model menunjukkan impak yang signifikan dalam kumpulan pada tiga titik masa, yang mengharuskan analisis selanjutnya tentang perbezaan dalam setiap kumpulan. Hasil menunjukkan bahawa tahap tekanan akulturatif dan niat untuk menarik diri dari universiti dikurangkan dengan signifikan dalam kumpulan intervensi dari peringkat permulaan (T1) hingga ke pasca-intervensi (T2), dari pasca-intervensi hingga ke susulan tiga bulan (T3) dan dari T1 hingga ke T3 ($p < 0.001$), manakala penyesuaian sosiobudaya dan psikologi meningkat dengan signifikan. Untuk kumpulan kawalan, tahap tekanan akulturatif dan niat untuk menarik diri dari universiti meningkat dengan signifikan dari T1 hingga T2, dari T2 hingga T3 dan dari T1 hingga T3 ($p < 0.001$), manakala penyesuaian sosiobudaya dan psikologi berkurang dengan signifikan.

Hasil kajian ini menunjukkan bahawa intervensi pendidikan adalah berkesan dalam mengurangkan tahap tekanan akulturatif dan niat untuk menarik diri. Di samping itu, ia meningkatkan tahap penyesuaian sosiobudaya dan psikologi di kalangan pelajar pascasiswazah antarabangsa baru di universiti awam Malaysia.

Kata kunci: Pelajar pascasiswazah antarabangsa, tekanan akulturatif, penyesuaian diri, niat untuk menarik diri, intervensi pendidikan.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Muhammad Hanafiah Juni, MD, MPH, MSc

Associate Professor
Faculty of Medicine and Health Sciences
Universiti Putra Malaysia
(Chairman)

Hayati Kadir @ Shahar, MD

Associate Professor
Faculty of Medicine and Health Sciences
Universiti Putra Malaysia
(Member)

Siti Irma Fadhilah Binti Ismail, PhD

Senior Lecturer
Faculty of Medicine and Health Sciences
Universiti Putra Malaysia
(Member)

ZALILAH MOHD SHARIFF, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

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Signature: _____

Date: _____

Name and Matric No.: Musheer Abdulwahid Abdo AL-Jaberi, GS44937

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LIST OF ABBREVIATIONS

UNESCO	United Nations Educational, Scientific and Cultural Organization
OECD	Organization for Economic Co-Operation and Development
MOE	Ministry of Education
EMGS	Education Malaysia Global Services
HEIS	Higher Educational Institutions
CONSORT	Consolidated Standards of Reporting Trials
ICC	Intraclass Correlations
CVI	Content Validity Index.
I-CVI	Item Content Validity Index
KMO	Kaiser-Mayer-Olkin
EFI	Exploratory Factor Analysis
ASEIP	Acculturative Stress Educational Intervention Programme
ASSIS	Acculturative Stress Scale for International Students
AI	Acculturation Index
ISASS	International Student Acculturative Stressor Scale
MSPSS	Multidimensional Scale of Perceived Social Support

CHAPTER 1

INTRODUCTION

The first chapter provides an introductory background on international students' enrollment around the world, including those joining Malaysian universities. The chapter also presents the various challenging issues and difficulties faced by new international students and it introduces the epidemiology of acculturative stress in addition to major relevant factors. Following this is a detailed description of the problem statement and its significance for international students and higher education in Malaysia. The chapter provides the main research questions, research objectives, and research hypotheses.

1.1 General background

The focus of organizations, regardless of its industry, is the quality of services since it plays an essential role in developing competitive advantage and in attracting new and retaining existing customers. In the same manner, in the context of higher education, providing good quality services is essential for the continuity of higher educational institutes (Trivellas & Akrioula, 2010). Due to the contribution of higher education to the economic development of many nations, including Malaysia, internationalization of higher education becomes a top priority for the Malaysian Government. In this country, education has been recognized as one of the National Key Economic Areas, and Malaysia is doing its best to position itself as a stable, safe and relatively cheap host environment for international students (Ali et al., 2016).

Due to globalization and internationalization of higher education and its highly recognized role in the national economic prosperity in many developed and developing countries all over the world, the number of international students joining higher educational institutions outside their home countries has grown rapidly (Altbach et al., 2009; Zolfaghari et al., 2009). As revealed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2009), there were almost 2.5 million international students joining universities worldwide (Altbach et al., 2009), including Australia, South Africa (Mudhovozi, 2011), the United States (Lidy & Kahn, 2006), Turkey (Kağnıcı, 2012) and Malaysia (Mahmud et al., 2010). There was a raise in the enrollment of international students worldwide from 2 million in 1999 to 5 million in 2016. This increase until early 2010 was exponential. However, there was a slight rise in the number of international students again in 2014 (an increase of 9% compared to 2013) and in the following two years of 2015 and 2016 an increase of 7% and 6%, respectively (OECD, 2017, 2018). This increase is significant for Masters and PhD international students. The rate of incoming students at least doubles between bachelors and postgraduates (OECD, 2017, 2018). This figure is predicted to rise to 7 million (Altbach et al., 2009) or 5.8 million (the British Council, 2003) by the year of 2020, which implies that the mobility of

international students is an increasingly important part of the higher education worldwide (Lasanowski, 2009). Recently, international students abroad have become the target of attention by both media and research, especially social science research (Shafaei & Razak, 2018)

The largest increase in the number of international students has been recorded and reported in Estonia, Latvia, Poland and the Russian Federation. Other host countries that have attracted more international students are Brazil, Chile and Turkey. In contrast, the number of international students in Austria, Slovenia Korea and Japan has slightly declined between 2013 and 2015. Almost, the same shift in the number of international student has been recorded in the Asia-Pacific region, especially in Malaysia, Singapore and china (Bangkok, 2013). In the context of Malaysia, the Malaysian government has made practical efforts into changing the country into an international destination hub and an excellent center of higher education that can recruit 200,000 international students by the year 2020. As an important destination for higher education in the Asian region, Malaysia has succeeded in raising the number of international students from 18, 242 in 2001 to 86,919 by 2010. However, in 2011, the number declined to 71,101 and rose again to 83, 538 in 2012 to continue on the same line till 2013 with total enrolments of 83.633 of international students It increased again to 122,034 by 2015 (Madanian et al., 2013; Nachatar Singh, 2018; Singh & Jack, 2018).

In addition, the number of international postgraduate students who registered in the first semester and second semester of the academic year of 2016/2017 in the all 20 public universities reached 3981 and 1580 respectively. However, for the first semester of 2017/2018, it is noticed that while the enrolment for new postgraduates' international students in the public universities rose to 4359, the number relatively declined through three semesters for long-term trends to reach 840 students in the second semester of the academic year of 2018 /2019 (Ministry of Education and Education Malaysian Global Service, pers. comm. 2016, 2017, 2018&2019). This can be clearly seen in Table (1.1) and Figure1.1.

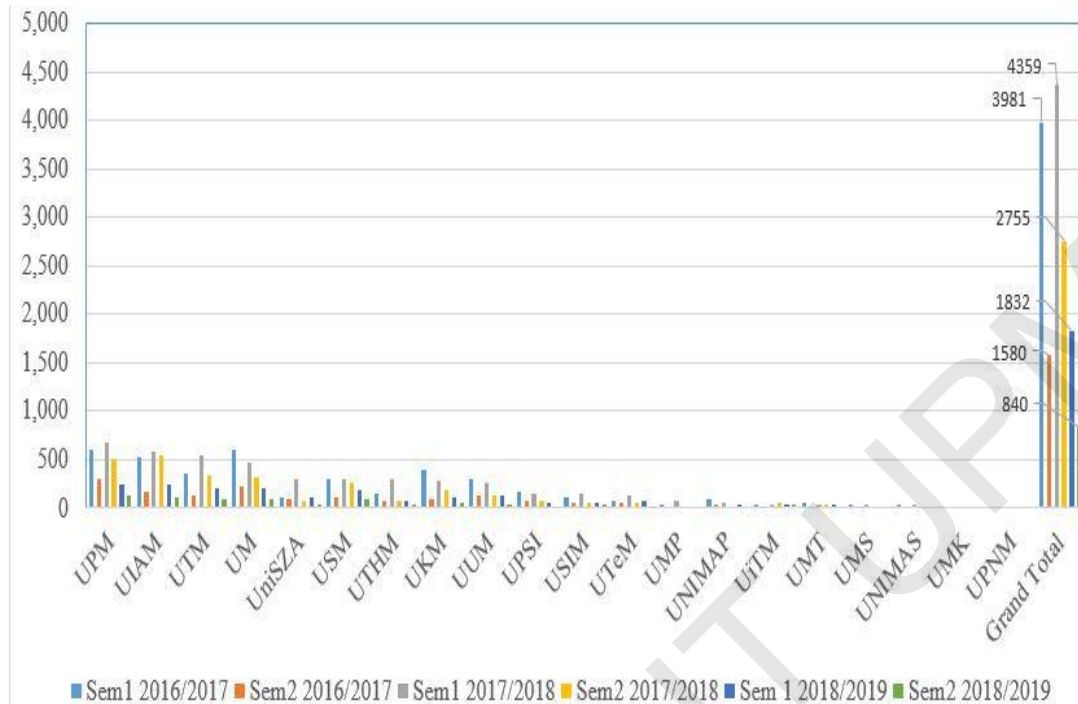


Figure 1.1 : Enrolment of new postgraduate international students in Malaysian public universities

[Source: Ministry of Education (MOE) and Education Malaysian Global Service (EMGS)]

In the context of these statistics and figures and in accordance with the vision of the Ministry of Education, the Malaysia Prime Minister Tun Dr Mahathir Mohamad (2019) has called on international students who are considering their path in education to join the Malaysian universities. It becomes important for the Malaysian higher educational institutions (HEIs) to identify international students' needs and offer them appropriate services and to make sure they have adequate access to these services and information that can satisfactorily meet their needs and aspirations in order to ensure that international postgraduate students can successfully adjust to the host culture. International students' use of university services is an indicator of their adjustment to the host country (Abe et al., 1998a; Smith & Khawaja, 2011). However, failure of HEIs to manage and offer good quality services by which universities can attract high numbers of international students will probably accelerate students' challenges and difficulties. In the context of Malaysia, the quality of services, particularly health care services need to be improved in order to meet the requirements of the increasing number of international students. According to the incumbent Health Minister, Chua Soi Lek, universities need to make constant efforts in raising their services to meet the expectations of international standards with a focus on enhancing the health care services so that they will attract more international students in a way that they influence institutional image, and student satisfaction and loyalty (Ali et al., 2016; Aljaberi et al., 2018; Chee & Barraclough, 2007).

Therefore, the Malaysian higher education system should develop and implement efficient programmes, innovative ideas, strategies and interventions that will assist international students to adjust to the host environment (Abdullah & Rahman, 2011; Othman, 2011). Failure of Malaysian higher educational institutions, on the other hand, to achieve this according to the Internationalization Policy Document, will diminish their presence in the competitive global student market (Education, 2011). As noticed in the following Table (1.1), the increasing number of international students suggests the success of internationalization in Malaysia. International students' mobility to Malaysia has played a role in contributing to the social, cultural, financial and academic growth of the host countries (Shafaei & Razak, 2018). However, this increasing number means increasing needs and issues related to their academic success (Nachatar Singh, 2018; Singh & Jack, 2018). In the context of these statistics of total enrolments in Malaysian universities, it becomes important to identify the needs of the international students and provide appropriate services to meet the needs and aspirations of students in consistent with the with the aim of the Ministry of Higher Education (MOHE) in increasing the number of international students from to 250,000 by 2025 (Blueprint, 2015).

Table 1.1 : Enrolment of new postgraduate international students in Malaysian Public Universities

Public Universities	Sem1 2016/2017	Sem2 2016/2017	Sem1 2017/2018	Sem2 2017/2018	Sem 1 2018/2019	Sem2 2018/2019
UPM	597	298	670	499	246	137
UIAM	526	163	574	540	250	113
UTM	356	127	542	337	202	87
UM	607	230	474	312	202	90
UniSZA	118	87	297	76	116	33
USM	292	108	295	270	184	89
UTHM	145	73	292	80	75	35
UKM	388	94	272	195	119	64
UUM	294	129	270	128	124	41
UPSI	170	77	157	69	56	15
USIM	110	63	151	53	52	34
UTeM	73	51	122	60	65	22
UMP	45	0	72	15	23	17
UNIMAP	94	32	46	24	40	6
UiTM	29	5	31	51	39	29
UMT	57	27	31	42	37	27
UMS	28	12	29	0	0	0
UNIMAS	29	3	29	0	0	0
UMK	22	1	4	4	2	1
UPNM	1	0	1	0	0	0
Grand Total	3981	1580	4359	2755	1832	840

Source: Ministry of Education (MOE); Education Malaysian Global Services (EMGS)

IIUM: International Islamic University Malaysia, UM: University of Malaya, UPM: Universiti Putra Malaysia, UTHM: Universiti Tun Hussein Onn Malaysia, UUM: Universiti Utara Malaysia, UKM: National University of Malaysia, UniSZA: Universiti Sultan Zainal Abidin, UPSI: Universiti Pendidikan Sultan Idris, UTeM: Universiti Teknikal Malaysia Melaka, UMP: Universiti Malaysia Pahang, UiTM: University Technology Mara, UMK: Universiti Malaysia Kelantan, UMS: Universiti Malaysia Sabah, UMT: Universiti Malaysia Terengganu, UniMAP: Universiti Malaysia Perlis, UniMAS: Universiti Malaysia Sarawak, USM: Universiti Sains Malaysia, USIM: Universiti Sains Islam Malaysia, UPNM: National Defence University of Malaysia, UTM: Universiti Teknologi Malaysia.

Moreover, one of the main indicators of internationalization of Malaysian HE is international student mobility (Ministry of Higher Education 2011). However, the number of international students has increased from 18, 242 in 2001 to 83, 633 in 2013 (Ministry of Higher Education 2007; Ministry of Education Malaysia 2014), which goes against this policy. Furthermore, research-intensive universities need to enroll at least 10% of the international postgraduates. However, this needs much improvement of its research capacity building as well as the outputs that can play a role in enhancing the rankings of universities. While the Malaysian government aims to make the country of Malaysia as an international hub for higher education excellence by 2020, research on international postgraduates is still limited. There are only a few studies on international postgraduate students, especially that explore the challenges they face in academic and social adjustment in Malaysia (Singh & Jack, 2018; Singh et al., 2014).

International students seek better quality services that will help them to overcome the challenges faced by them in successfully adjusting to the host environment. This requires, however, adequate access to these services and orientation about accessible and available resources that will improve health-care services. These available resources include cultural programmes, mental health services, academic assistance, physical activity groups, Malaysia cultural center, community services, student organizations, and international student resources (Jin, 2017). Although the Ministry of Higher Education together with Malaysian universities support multicultural education and enable international students to better adjust to the system and unfamiliar environment, Malaysian universities need to take into consideration international students' preferences and needs in order to satisfy them and assist them to smoothly adjust to the new environment and achieve high grades. As a result, universities will be more competitive in the global education market (Ali et al., 2016; Othman, 2011). This means that international students' adjustment contributes to the success of universities and serves as a means to improving its service quality management (Ali et al., 2016). Moreover, offering good quality services will aid international students' feelings of loyalty to the university (Afrasiabi et al., 2018). Therefore, acculturative stress and cross-cultural adaptation are two important aspects that need to be further investigated (Fisher et al., 2007; Schneider et al., 2001; Shafaei & Razak, 2018).

1.2 Epidemiology of acculturative stress and adjustment among new international students

Based on the literature review of previous studies, international students encounter challenges in relation to their adjustment to new environments, which negatively affects their academic success and psychological well-being as well as the effectiveness of educational institutions in retaining international students (Barratt & Huba, 1994; Charles & Stewart, 1991; Pedersen, 1991; Poyrazli & Grahame, 2007; Shafaei et al., 2016). A few other researchers have reported that the challenges encountered by international students may also intensify after a period of time and hence affecting their academic performance at universities (Poyrazli & Grahame,

2007). Therefore, the following sections provide definitions of the epidemiology of acculturative stress and adjustment among new international students.

1.2.1 Epidemiology of acculturative stress among new international students

In better understanding the individual's stress, it is important to know the nature of the stress and its causes in order to cope with it well. Researchers defined stress as any event or circumstance which strains or even exceeds a person's ability to cope (Blona, 2005; Mazo, 2015; Rodríguez et al., 2019). However, studies relate students' stress to their attempts to cope with the requirements or needs imposed by their adjustment to a new living environment where they meet new peers, face academic pressure, and encounter sexual concerns. Similarly, Berry et al. (1987) define acculturative stress as a phenomenon experienced by individuals or a group of people while they attempt to adjust to a new culture (Berry et al., 1987). This means that acculturative stress results from the individual's acculturation process between two different cultures. As people coming from a different culture attempt to adjust to a new incoming culture, they are faced by stress that is related to their physical, psychological and mental status (Berry, 2005). Acculturative stress is also known as the individual's reduction in the psychological and social balance while he/she attempts to adapt to a new culture (Pena, 2019). The intensity of this stress varies according to the variation between the individual's own culture and the new culture. It also varies among individuals depending on their personal characteristics such as being extrovert and introvert, their exposure to other cultures, their levels of education and skills as well as language, gender, psychological and spiritual strengths, race and political and social attitudes towards the people of the new culture (Nwadiora & McAdoo, 1996; Pena, 2019).

International students' lack of knowledge about the host cultural values, norms and ethics as well as the differences between their own cultures and cultures of people in host countries is more likely to be challenging for them. Although international students play an important role in contributing to the social, economic, and cultural aspects of the host country, they are expected to face several challenging issues and may feel frustrated by their movement to the new environment (Sumer, 2009). In other words, international students' stress and anxiety are normally derived from their movement to a new and unfamiliar cultural environment (Berry, 2006b). However, if they overcome issues and challenges in their adjustment issues to the host society, they will achieve equilibrium and avoid such negative consequences (Earley & Ang, 2003; Molinsky, 2007).

Previous research on international students' stress described the process of stress in its three main conceptual domains: stressors, stress mediators, and stress outcomes. According to Thoits (1995), stressors are environmental, social, or internal demands that enable the individual to make adaption of his/her behavior. They fall into three main categories: life events, chronic strains, and daily hassles. As for international students, they normally face problems related to their adjustment, chronic strains of enduring separation, adjustment problems, and even conflicts. As a result, they may

suffer from stress and pressure. Social relationships, roles and stratification determine the manner in which people experience stress, the mediators they can mobilize and the stressors to which people are exposed (Misra et al., 2003).

Stress has been investigated by a wide number of empirical studies (Barratt & Huba, 1994; Charles & Stewart, 1991; Pedersen, 1991; Poyrazli & Grahame, 2007). Results indicate that international students face a wide array of stressful events. This is due to their movement away from their native and previously learned support systems into new environments where they face challenges in their adjustment to the new life, including the different cultures and beliefs and even ways of knowledge and academic expectations as well as assuming responsibilities of their own needs (Hefferin, 1980; Hudd et al., 2000; Misra & McKean, 2000). Some previous researchers have also gone beyond this mere identification of challenges faced by international students worldwide by looking at the effect of stress. They reported that high stress levels can result in depression, serious health issues, poor academic performance and attrition (Hudd et al., 2000; Misra et al., 2000; Pengilly & Dowd, 2000). These results have important implications for higher education services administrators. Being physically distanced from their native countries, international students have to seek new ways to adapt themselves to the new contexts especially with regards health care issues in a way that suits the different cultural norms in the host countries (Cheng, 2005).

Since the current study focuses on students' stress, excessive stress is of a potential harm to international students' academic performance, and students with high level of stress are often subjected to depression, which in turns, results into other mental health problems, such as excessive drinking (Walton, 2002). Hence, academic stressors are those stressors related to students' academic achievement, learning and adjustment to a new academic environment where students receive much content over a seemingly inadequate period of time (Kariv & Heiman, 2005). Furthermore, excessive stress is conducive to international students' dropout (Shields, 2001). When students fail to deal with stress in an efficient manner, they will feel lonely, nervous, become excessively worried and suffer from sleeplessness. Therefore, intervention programmes should be designed and developed with the aim of addressing stress among university students. However, designing efficient intervention programmes requires identification of stressors that are specific to university students.

1.2.2 Epidemiology of adjustment among new international students

International student adjustment has been a major challenging issue for many international students studying abroad. Therefore, host universities attempt to offer services for international students based on staff and faculty members' assumption and knowledge about the needs of international students rather than on a structured assessment of their needs (Deitchman, 2014). Hence, understanding international students' adjustment becomes necessary in order to ensure that they are offered good quality services and enjoy their experience studying abroad. Moreover, it is

necessary to expand the research base by including more qualitative studies to uncover first-hand adjustment experiences of international students (Ahrari et al., 2019).

Studying abroad is a stressful time for many international owing to the difficulty in adjusting to new educational and social environments (Essandoh, 1995; Mori, 2000). In addition, the adaptation process itself can be even more stressful for international students, particularly students coming with diverse languages, cultural values, academic backgrounds, uprooting disorder (the feeling of separating from home environment which disturbs students' well-being) and different study habits (Misra et al., 2003). Therefore, international students' cross-cultural adjustment is regarded a crucial issue that needs care and attention (Shafaei & Razak, 2018).

International students may not find adjustment easy to develop because they need to make much effort in adopting themselves to cultural and academic differences (Glass & Westmont, 2014). Studies have reported several challenges and barriers in international students' adjustment, including separation from home and academic styles (Hendrickson et al., 2011) as well as language barriers (Meng et al., 2018), in addition to poor social integration and daily life problems. These factors also play a role in contributing to students' anxiety and stress, which have a negative impact on their acculturation (Meng et al., 2017; Yan, 2017b) because they respond to real life situations and events which are rooted in cross-cultural contact (Berry, 2006a). Furthermore, students' failure to adjust to the new environment will determine various aspects of their university life, thus leading to students' poor academic achievement, issues related to physical health and psychological well-being well as dropout from university (Hang et al., 2017; Martirosyan et al., 2015). However, in the process of self-adaptation to different cultural patterns and norms regarding healthcare, international students will probably experience uncomfortable feelings or even uncertainty in cases when they visit health centers for a medical concern. They may be unable to meet their requirements, which in turn, will force them to leave the country (Ng & Rury, 2006) because of their failure to meet such requirements of academic achievements (Swinford, 2002). So for academic achievement of international students, their health care requirements should be met by health services management and institutions of the host country (Austin, 2013).

1.2.3 Adjustment and coping strategies

During stressful events, how an individual reacts to stress can assist students to maintain psychosocial adaptation (Idowu et al., 2019; Walton, 2002). Coping with challenging events plays a crucial role in successful adaptation to stress. Coping strategies are specific behavioral and psychological efforts that a person employs in mastering, reducing, managing and tolerating stress (Coyne & Racioppo, 2000; Jackson et al., 2019). They can be negative or positive and as well as active (dealing with actual stressful situations or events) or reactive strategies (reacting to an individual's own feelings and thoughts) (Kaur, 2018; Shields, 2001). Previous researchers (Folkman, 1984; Folkman & Lazarus, 1980) classified coping strategies

into two general kinds: problem-focused strategies and emotion-focused strategies. While the first group of strategies aims at solving problems or taking actions to change the source of stress, the latter group of strategies aims at declining or managing the individual's emotional distress related to the stressful situation. Moreover, problem-focused strategies tend to predominate when the individual feels that something constructive will be done, whereas emotion-focused strategies tend to predominate when he/she feels that such stressor must be tolerated.

In relation to the above classification of stress coping strategies, Folkman (1984) and Carver (1997) identified sixteen dimensions of stress coping strategies. Five of these dimensions are categorized under the problem-focused coping strategies (planning, restraint coping, seeking of instrumental social support, active coping and suppression of competing activities), and five dimensions are under the emotion-focused coping strategies (acceptance, positive reinterpretation, seeking of emotional social support, turning to religion and denial). The remaining 6 dimensions are used by the individual to assess coping responses that are less useful (substance use, humor, self-blame, venting of emotions, behavioral disengagement, and self-distraction). Moreover, Park and Adler (2003), pointed out that coping strategies are useful to overcome the unwanted effects of stress on the individual's physical, emotional and mental wellbeing if they are used effectively. The role of higher educational institutions is to encourage and assist international students in their adaption through the use of strategies which facilitate their integration into the university system (i.e., developing student-friendly environment for students, internationalizing the curriculum and providing appropriate psychological and academic supports to students) (Guo & Chase, 2011). By so doing, both host institutions and their international students will experience a complex adjustment process.

The above-mentioned classified stress coping strategies have also been referred to as active and avoidant coping strategies by Krohne (1993). While active coping strategies are either psychological or behavioral reactions of the individual to changing nature of stressors (how the person thinks about it), avoidant coping strategies are those strategies which result into activities such as alcohol drinking and withdrawal that steer them away from directly thinking of and addressing stressful events (Krohne, 1993). Active coping strategies are regarded as better means to dealing and managing stress, whereas avoidant coping strategies are regarded as a risk for the person's psychological condition in facing stress (Holahan & Moos, 1987). In the same vein, Carver (1997) described active coping strategies as taking actions or making efforts, planning, thinking of how to overcome stress and accepting that stress is something that is real. However, Carver (1997) stated that avoidant strategies are actions taken to avoid stress rather than overcome it. These strategies include denying, rejecting the real problem or what caused such stress, disengaging and withdrawing or giving up efforts to overcome stress. It was also argued by researchers and practitioners that international students' psychosocial adjustment in host countries can be improved by implementing a continuous and multi-pronged approach which is a combination of both traditional counseling and other more specialized groups and outreach services (Jackson et al., 2013; Smiljanic,

2017). Students may also resort to using other methods as a means to reducing stress, such as leisure pursuits, positive reappraisal, social support and time management (Misra et al., 2000). However, their failure to cope with stress may lead to the third conceptual domain of stress, which is the outcomes of stress, including their excessive feeling of worries, nervousness and sleeplessness issues. Ultimately, this may lead to their dropout (Shields, 2001). In some cases, students may resort to drinking or even suicide. For instance, a qualitative study among Malaysian students by Aan et al. (2009) showed that students employed coping strategies such as praying, counseling, regular exercise, yoga and tai chi, watching cartoons or comedies as well as listening to soft music in order to cope with stress. In another study conducted by Abasimi et al. (2015) among nursing students in Tamale, Ghana indicates that the main coping methods adopted or used by students are cognitive. This was followed by coping methods which are categorized as behavioral, spiritual, social and avoidance methods. In relation to the course type, the results of this study demonstrated a significant difference in the behavioral coping method, but for the other four categories of coping methods and overall coping, no significant difference was found. The results also show significant differences in the use of coping methods and strategies between males and females.

1.3 Factors associated with acculturative stress

The process of acculturation involves language difficulties, incongruent cultural values, contrasting practices and even discrimination. Negative or challenging experiences create cognitive dissonance and accelerate cultural shock, which later turns into acculturative stress. Acculturative stress is known as the individual's perceived inability to resolve new or unfamiliar practices, incongruent values and customs in their mainstream cultures. In cases when familiar norms and practices are lacking, cultural stressors are likely to lead the individual's disorientation (Falavarjani & Yeh, 2018). Research on immigrants focused on the effect of acculturative experiences on their living abroad, particularly how and to what extent the dominant mainstream cultures influence immigrants and lead to feelings of marginalization and psychological concerns (Abu-Rayya & Sam, 2017). Many groups of those immigrants have been found to experience marginalization because of their different ethnicities, lacking access to educational practices and mobility as well as securing stability in new countries (Eroğlu, 2018). These acculturative challenges emphasize the links between international students' perceived discrimination (Fischer-Neumann, 2014; Shafaei & Razak, 2018), gender (Kofman, 2013) intergroup attitudes (Statham & Tillie, 2016), , age (Sun, 2016), and language (Soehl, 2016) as well as their adaptation to the environments of the host countries.

Previous studies also indicated that sources of stress are not related to situational factors, but they are pertinent to other predisposing factors such as attachment, type of character or personality, self-esteem, gender, and age (Corradini et al., 2015). International students need to adjust to different educational systems, cultural conflicts, language barriers, emotional concerns, social isolation and racial discrimination (Smith & Khawaja, 2011). Moreover, international students' native cultures have an impact on their stress and stress coping. For example, Hofstede

(1991) revealed that those individuals coming from strong uncertainty avoidance cultures were exposed to higher levels of stress than those individuals coming from weak uncertainty avoidance cultures. Individuals coming from cultures that value mediation and contemplation instead of competitiveness are likely to develop lower levels of stress than others. Helman (2000) found that American students displayed more gastrointestinal stress symptoms whereas French students showed more changing moods, and Filipino students, particularly females, showed cardiac symptoms such as shortness of breath and rapid heartbeats.

1.4 Problem statement

Previous research has identified the challenges and needs of international students studying abroad (Abu-Rayya & Sam, 2017; Alavi & Mansor, 2011; Andrade, 2006; Arthur, 2003; Gebhard, 2012; Leon & Chmiel, 2013; Poyrazli & Grahame, 2007; Singh & Jack, 2018). The most challenging issues and difficulties are difficult living circumstances, barriers in accessing health care services, foods, climate, cultural norms and customs in the host country (Aljaberi et al., 2018; Andrade, 2006; Andrea, 2014; Barletta & Kobayashi, 2007; Bektaş, 2008; Mahmud et al., 2010; Mori, 2000; Olagoke-Oladokun et al., 2019; Sarwar, 2013; Shatkin, 2007) as well as interactions and communications with local students and people (Bonazzo & Wong, 2007; Pandian, 2002; Pedersen et al., 2017; Poyrazli & Grahame, 2007; Yan, 2017a). International students also face academic or educational challenges, such as unfamiliarity with new or different educational systems and language barriers (Andrade, 2006; Bektaş, 2008; Furnham, 2004; Mahmud et al., 2010; Rienties et al., 2012; Shafaei & Razak, 2016). In addition, international students are challenged by their movement away from home countries, being distanced from their own previously learned and network support systems (e.g., family, friends), how to establish entirely new social contacts, responsibility for their own needs, how to adjust to more rigorous academic expectations, increasing workload and how to deal with individuals of differing beliefs and cultures (Hefferin, 1980; Hudd et al., 2000; Mesidor & Sly, 2016; Misra & McKean, 2000; Ross et al., 1999). Therefore, the most challenging issue encountered by international postgraduates is their adaptation to the new environment (Guidry Lacina, 2002; Hyun et al., 2007; Luo & Jamieson-Drake, 2015; Mahmud et al., 2010; Shafaei & Razak, 2016).

Such above-mentioned challenging issues and difficulties have been reported to result into international students' stress (Al-Zubaidi & Rechards, 2010; Alavi & Mansor, 2011; Andrade, 2006; Hamid & Bukhari, 2015; Lin & Yi, 1997; Liu, 2009; Naeeni et al., 2015b; Sherry et al., 2010; Steele, 2008; Yeh & Inose, 2003). Known as stressors for international students (Gebhard, 2010; Kuo, 2011; Sherry et al., 2010), these challenges are likely to result into students' disorientation in familiar practices and norms. They also lead to their cognitive dissonance and contribute to their acculturative stress, which is the individual's perceived inability to resolve incongruent customs, values and practices in a different cultural environment (Falavarjani & Yeh, 2018; Lee & Padilla, 2014). It has been as identified a serious and critical issue experienced by international students (Barratt & Huba, 1994; Charles & Stewart, 1991; Gebregergis et al., 2019; Poyrazli & Grahame, 2007; Wu

et al., 2015). It results into deteriorated health conditions and serious health problems (Girmay & Singh, 2019; Gupchup et al., 2004; Lian & Wallace, 2018; Shields, 2001), feeling of anxiety (Poyrazli & Grahame, 2007), depression, physical illness and wasted potential (Misra et al., 2003; Pereira, 1997; Walton, 2002) especially with the lacking support. Such stress was found to be the main cause behind Jordanian university students' depression (Sulaiman, 2013), negatively affects students' academic achievements (Whitman, 1985), reduces their academic performance and leads to their dropout from the university (Austin, 2013; Misra et al., 2000; Pereira, 1997; Thurber & Walton, 2012), especially when they experience an excessive level of stress (Shields, 2001). In this regard, students' dropout is a challenging task in higher education (Austin, 2013; Tinto, 2006). Therefore, Pal (2012) suggested that development and implementation of programmes that can have positive effects on international students' level of stress and intention to dropout. Despite the evidence on acculturative stress as a challenging issue, early research appeared salient in identifying the most important variables and outcomes of acculturative stress and adjustment among international students. Moreover, international students' experiences at universities have not been well explored in earlier research (Lee & Ciftci, 2014).

In contextualizing the issue to Malaysia, Malaysia holds the 11th universal rank in the intake of international students (Cheng et al., 2013). The increasing number of international students coming from various countries, including the Middle East (Lam et al., 2017; Talebloo & Baki, 2013) and the plan to increase the number of its international students to 250,000 students by 2025 (Education, 2015) raises the need for enhancing the quality of services and enabling its institutions to meet the needs and requirements of international students, especially in regards to health care services. There is also a need to address acculturative stress and adjustment among international students.

Studies show that acculturative stress among international students in Malaysia is caused by several stressors, including language barriers, academic barriers, racial discrimination (Nursyazana, 2011; Shafaei et al., 2016; Singh & Jack, 2018), perceived hatred (Desa et al., 2012). Other causes are difficulties accessing health care services and lacking information about available and accessible resources, such as academic assistance, physical activity group, cultural programmes and immigration policies (Ahrari et al., 2019; Ali et al., 2016; Aljaberi et al., 2018; Jin, 2017; Othman, 2011; Saleh & Qasem, 2010; Sarwar, 2013), cultural shock, homesickness and perceived hatred (Rajab et al., 2014). Whereas Rajab et al. (2014) reported a moderate level of acculturative stress among international students, Par et al. (2015) reported a high level of acculturative stress among 40% of the international postgraduate students in Malaysian universities. According to Ye and Juni (2017), 77% of the international postgraduates joining Malaysian public universities were found to experience a moderate degree of acculturative stress, and 5.2% of them appeared to experience a high level of stress. According to Falavarjani and Yeh (2018), 30.5% out of 328 international postgraduates were found to suffer from high levels of acculturative stress. Moreover, the consequence of acculturative stress reported by research in the Malaysian context is international postgraduate

students' inability to adjust to the host country of Malaysia (Ahrari et al., 2019; Alghail & Mahfoodh, 2015; Olagoke-Oladokun et al., 2019). As a result of acculturative stress, international postgraduate students' academic achievement and health were negatively affected (Misra & McKean, 2000; Puspitasari, 2011; Thurber & Walton, 2012).

From the findings of the above-mentioned studies on international students in Malaysia, the issue of acculturative stress and the key variables that influence students' cross-cultural adjustment becomes paramount to address and understand in order to ensure that they obtain the best services and living experience and to maintain the social, cultural and financial benefits brought by international students to the academic institutions of Malaysia. This needs high-quality health care services and management that are cost-effective (Ahrari et al., 2019; Fisher et al., 2007; Schneider et al., 2001). This, however, can be achieved by developing and implementing strategies and programmes that address all dimensions of student' adjustment with the host culture and address their skills and information that are needed by them while attempting to adjust to the host environment (Colvin & Jaffar, 2007).

Although there is an emphasis on international students as stakeholders (Abdullah & Rahman, 2011), Malaysian universities provide programmes such as an annual orientation programmes, students ambassador programmes and other activities, which are insufficient since they focus on the academic system and the policies and rules for the university. In addition, students appear reluctant to seek counseling or psychological help and discuss their personal problems to strangers because of cultural stigmas and they may not be aware of the availability of support services, including health care services. Such international student resources are important for their adjustment to the new environment (Education, 2011; Heng, 2017; Jin, 2017; Jones, 2017; Khine, 2015; Nasirudeen & Josephine, 2019; Othman, 2011). While providing adequate services on all dimensions may appear attractive, failure to prioritize them may result in inefficient allocation of resources (Ali et al., 2016). Therefore, universities should act as providers of successfully managed exclusive value-added programmes and services that meet students' academic, social and cultural needs (Afrasiabi et al., 2018; Nazir, 2018; Sarwar, 2013; Wu et al., 2015). Such programmes should introduce students to effective coping methods, different cultures and social support by facilitating interaction among both Malaysian and international students to ease their adjustment (Ahrari et al., 2019; Yeh & Inose, 2003). Moreover, the main objective of such programmes should be increasing the adjustment rather than spending a huge amount of money on marketing purposes and attracting more international students to the Malaysian universities (Ahrari et al., 2019; Gebhard, 2012; Olagoke-Oladokun et al., 2019; Par et al., 2015; Shafaei & Razak, 2016, 2018).

Although the above studies in the Malaysian context are useful for investigation of international students' acculturative stress, these studies focused only on describing acculturative stress merely from students' perceptions using surveys and they

suggested the need to implement proper orientation and training programmes to enable international students to avoid or at least alleviate the negative impact of culture shock on their life and to get ready to adjust to the host culture (Desa et al., 2012; Pandian, 2008; Pandian et al., 2016; Puspitasari, 2011; Rajab et al., 2014). Moreover, these studies tend to be general when compared to those studies conducted on international students in other host countries (Saad et al., 2013). For example, whereas the trend of research on international students' acculturative stress and adjustment is almost in its third phase of development in European countries (Dawson & Hackett, 2006), it is still in its early phase of development in the Malaysian context (Nachatar Singh, 2018; Saad et al., 2013). This is because studies in the Malaysian context looked at acculturative stress as experienced by international students, while ignoring implementation of any interventions to help them to reduce acculturative stress and successfully adjust to the Malaysian culture and improve their academic achievement and performance (Olagoke-Oladokun et al., 2019; Saleh & Qasem, 2010). Based on the above issues and the gaps in previous research on international students in Malaysia, the present study attempted to address the effect of an educational intervention at Malaysian public universities on international students' acculturative stress by developing and implementing an educational intervention programme.

1.5 Significance of research

Although acculturative stress negatively affects university students' health and their academic achievement, students can cope with stress successfully, especially if they are provided with models and effective intervention programmes on stress coping strategies. However, there is a lack of empirical studies that can be useful guidance for carrying out stress coping interventions among international students. There is a need for empirical investigation of international students' acculturative stress in Malaysia which can identify the sources of the stress-related problems in order to develop ways or programmes for acculturative stress coping intervention and prioritizing and solving their problems. As pointed out by Maslow (1971), it is important for good counsellors to assist the whole person to develop rather than allowing him/her to be squeezed by stress.

Therefore, the current study is of significance in different aspects. Firstly, the study contributes to the knowledge relevant to the acculturative stress, acculturation and adjustment of international students. The significance of the study stems from its novel theoretical contributions to the body of multicultural stress and coping literature, especially to those previous studies which have ignored implementing interventions. This is because its investigation focuses on several independent variables in relation to acculturative stress of international students. Moreover, the study outcomes are expected to enhance international postgraduates' levels of awareness of the nature of acculturative stress. Based on the researcher's (being an international postgraduate in Malaysia) observation of this phenomenon among international students in Malaysia, this issue became a source of motivation for him to explore it further, detect its sources and investigate different ways to help students to cope with it and adapt to the new host country. Furthermore, the study contributes

significantly to faculty members' awareness of their international postgraduate students' acculturative stress and provides them useful insights into how they can help students to avoid stress and perform well in their academic life in Malaysia. Hence, the significance of the study lies in its support of the view that emphasizes students' frequent contact with their peers as well as college members and their sense of belonging to the university community, thus helping them to cope effectively with stress. The study is significant since the results are valuable for teachers as assistants who can assist stressed students by suggesting a variety of coping strategies, such as time management, improving studying habits and disclosing their feelings and thoughts about the course work. Another significance of the current study is its implementation of useful intervention and acculturative stress reduction educational programmes among international postgraduates. This will enhance our understanding of the factors or aspects that are related to international students' successful integration and adaptation to the host country.

Secondly, the intervention programmes developed based entirely on acculturative stress of international students are expected to be significant for Malaysian public universities in developing better service management that can meet prior services and needs of international students. This implies that the results could be the basis for universities to develop policies, service management and programmes concerning international students. Previous research provided evidence on students' lacking positive perception of some university services, such as education service quality, welfare services, social activities, consulting and supporting services and health care services (Ahrari et al., 2019; Ali et al., 2016; Aljaberi et al., 2018; Olagoke-Oladokun et al., 2019), which could be due to the insufficient information, inadequate access or unavailability of the services. This suggests that there is still room for improvement in their service management and methods of attracting new international students and assisting the existing students. Therefore, this study will provide useful information about accessible and available resources that they can be utilized by students in improving their mental health, such as mental health services, physical activity group, academic assistance, Malaysian cultural center, student organizations, and international student resources. This will enhance the status of Malaysia as a provider of higher education regionally and internationally.

Thirdly, international students' adjustment and enjoyment of the highest attainable standard of health are their right, yet influenced by several overlapping and intersecting social factors, such as integration, acculturative stress, exclusion and discrimination (Organization, 2017, 2018). Moreover, while obtaining high-quality health care needs consideration of culture, educational and health interventions should take into account the cultural element (Schneider et al., 2001). In this regard, (Fisher et al., 2007) suggested that interventions would be likely to remove disparities in health care, provide good quality and cost-effective services (Health & Services, 2001). Therefore, this research can inform decision-makers about developing effective interventions that aim at: (1) adopting health services and promoting the health of international students; (2) improving social services and the quality of the physical and social environments in the campus; (3) prioritizing community-centered approaches that mobilize the resources and assets within

international students' community and build local capacities ; (4) investing in cultural support and health care services and (5) promoting cultural and diversity-sensitive approaches to health care and build a culturally competent health workforce that is responsive to the unique needs of international students. Finally, the results of the current study are useful for the Malaysian government in terms of the identified factors associated with international students' acculturative stress as well as the suggested ways on decreasing or avoiding the problems faced by international students in Malaysia. The findings will also assist the governments of the countries of origin of international students to better understand their students' needs and the conditions of acculturation to prepare them for studying abroad, especially in Malaysia. The results of the study can be also used by future research for investigating international students' needs while encountering acculturative stress in the host country.

1.6 Research questions

The current research work attempted to answer the following research questions:

1. What are the baseline levels of acculturative stress, adjustment and intention to dropping out from university among new international postgraduate students joining public universities in Malaysia?
2. What is the effect of the educational intervention programme on new international postgraduates' levels of acculturative stress, adjustment and intention to drop out from the university?

1.7 Research objectives

1.7.1 General objective

The general objective of the study is to develop, implement and evaluate the effect of educational intervention on the acculturative stress and adjustment among new international postgraduate students joining Malaysian public universities.

1.7.2 Specific objectives

The specific objectives are:

- 1 To describe the participants' socio-demographic characteristics, acculturation, acculturative stressors and social support at baseline.
- 2 To determine the level of acculturative stress, adjustment (psychological and sociocultural) and intention to drop out from university among new international postgraduate students joining Malaysian public universities at baseline.

- 3 To determine the effect of the educational intervention on the acculturative stress, adjustment and intention to dropout between and within the control and intervention groups at baseline, post-intervention and three-month after the intervention.

1.8 Research hypothesis

The study findings may answer the following research hypotheses:

- 1 The intervention group will score significantly higher than the control group at baseline evaluation of acculturative stress, adjustment and intention to drop out measures.
- 2 The intervention group will score significantly higher than the control group on the immediate and three-month post-intervention evaluation of acculturative and sociocultural adjustment measures.
- 3 The intervention group will score significantly lower than the control group on the immediate and three-month post-intervention evaluation of psychological adjustment measures.
- 4 The intervention group will score significantly higher than the control group on the immediate and three-month post-intervention evaluation of intention to dropout measures
- 5 The acculturative stress and sociocultural scores for the intervention group at the immediate and three-month post-intervention will be significantly higher than those scores of the baseline or pre-intervention.
- 6 The psychological scores for the intervention group at the immediate and three-month post-intervention will be significantly lower than those scores of the baseline or pre-intervention.
- 7 The intention to dropout for the intervention group at the immediate and three-month post-intervention will be significantly higher than those scores of the baseline or pre-intervention.

1.9 Operational definitions :

The following operational definitions used in this study:

1.9.1 International student

International student is defined as a student who comes from any country other than Malaysia. Postgraduate student is defined as a student in any master's or doctoral programme.

1.9.2 Acculturation

The term acculturation refers to the process in which the individual undergoes psychological and sociocultural changes as a result of his/her first-hand contact with another culture, thus leading to changes in his/her original cultural patterns of either or both groups (Jin, 2017; Simpson, 2016).

1.9.3 Acculturative stress

Acculturative stress is known as the individual's psychological and physical tension taking place when attempting to adjust to a new culture (Ladum & Burkholder, 2019; Shiverdecker, 2018; Simpson, 2016).

1.9.4 Psychological adjustment

Psychological adjustment refers the person's feelings of wellbeing or satisfaction while adapting to the new culture or cross-cultural transitions (Simpson, 2016).

1.9.5 Sociocultural adjustment

Sociocultural adjustment is defined as the individual's ability to adjust himself/herself to a new environment in order to acquire culturally appropriate skills. It is also known as a process in which the person is involved in negotiating new social or interactive aspects and cultural environments in the host country (Shiverdecker, 2018; Simpson, 2016).

REFERENCES

- Aan, R., Ar, S., & Mi, Z. (2009). Stress and coping strategies among management and science university students: A qualitative study. *International Medical Journal*, 8(2), 11-15.
- Abasimi, E., Atindanbila, S., Gai, X., & Mahamah, M. M. (2015). Analysis of stress coping strategies among diploma nursing students in Ghana. *International Journal of Applied Psychology*, 5(2), 26-32.
- Abdullah, N. A., & Rahman, S. A. (2011). *National Higher Education Strategic Plan 2: Malaysia's Global Reach : A New Dimension*. Kuala Lumpur, Malaysia.
- Abe, J., Talbot, D. M., & Geelhoed, R. J. (1998). Effects of a peer programme on international student adjustment. *Journal of College Student Development*, 39(6), 539-547.
- Abiddin, N. Z., & Ismail, A. (2009). Identification of resource needs in postgraduate studies. *Research Journal of Social Sciences*, 4, 33-44.
- Abu-Rayya, H. M., & Sam, D. L. (2017). Is integration the best way to acculturate? A reexamination of the bicultural-adaptation relationship in the "ICSEY dataset" using the bilinear method. *Journal of Cross-Cultural Psychology*, 48(3), 287-293.
- Afrasiabi, M., Helmi, S. A., & Mohd-Yusof, K. (2018). Engineering postgraduates perceived service quality and its association with satisfaction and loyalty. Paper presented at the 2018 World Engineering Education Forum-Global Engineering Deans Council (WEEF-GEDC) (pp. 1-6). IEEE.
- Ahrari, S., Krauss, S. E., Suandi, T., Abdullah, H., Sahimi, A. H. A., Olutokunbo, A. S., & Dahalan, D. (2019). A stranger in a strange land: Experiences of adjustment among international postgraduate students in Malaysia. *Issues in Educational Research*, 29(3), 611-632.
- Akhtar, M., & Kroener-Herwig, B. (2019). Coping styles and socio-demographic variables as predictors of psychological well-being among international students belonging to different cultures. *Current Psychology*, 38(3), 618-626.
- Akhtar, M., & Kröner-herwig, B. (2015). Acculturative stress among international students in context of socio-demographic variables and coping styles. *Current Psychology*, 34(4), 803-815.
- Al-Mubarak, A. H. (2000). *Adjustment problems, coping methods, and choice of helpers of international students attending a large Pennsylvania university* (Doctoral dissertation, University of Pittsburgh).

- Al-Sharideh, K. A., & Goe, W. R. (1998). Ethnic communities within the university: An examination of factors influencing the personal adjustment of international students. *Research in Higher Education*, 39(6), 699-725.
- Al-Zubaidi, K. O., & Rechards, C. (2010). Arab postgraduate students in Malaysia: Identifying and overcoming the cultural and language barriers. *Arab World English Journal*, 1(1), 107-129.
- Alavi, M., & Mansor, S. M. S. (2011). Categories of problems among international students in Universiti Teknologi Malaysia. *Procedia-Social and Behavioral Sciences*, 30, 1581-1587.
- Alazzi, K., & Chiodo, J. J. (2006). Uncovering problems and identifying coping strategies of Middle Eastern university students. *International Education*, 35(2), 65.
- Aldwin, C. M. (1991). Does age affect the stress and coping process? Implications of age differences in perceived control. *Journal of Gerontology*, 46(4), 174-180.
- Alex, S. (1992). *Acculturative stress and the international student: a comparison of three treatment modalities* (Doctoral dissertation, McGill University).
- Alghail, A. A. A., & Mahfoodh, O. H. A. (2015). Cognitive adjustment of international students in a Malaysian public university. *International Journal of Innovation Education and Research*, 3(12).
- Ali, F., Zhou, Y., Hussain, K., Nair, P. K., & Ragavan, N. A. (2016). Does higher education service quality effect student satisfaction, image and loyalty? A study of international students in Malaysian public universities. *Quality Assurance in Education*, 24(1), 70-94.
- Aljaberi, M. A., Juni, M. H., Al-Maqtari, R. A., Lye, M. S., Saeed, M. A., Al-Dubai, S. A. R., & Shahar, H. K. (2018). Relationships among perceived quality of healthcare services, satisfaction and behavioural intentions of international students in Kuala Lumpur, Malaysia: a cross-sectional study. *British Medical Journal Open*, 8(9), e021180.
- Altbach, P. G. (2004). Higher education crosses borders: Can the United States remain the top destination for foreign students?. *Change: The Magazine of Higher Learning*, 36(2), 18-25.
- Altbach, P. G., Reisberg, L., & Rumbley, L. E. (2009). Trends in global higher education: Tracking an academic revolution. *A Report Prepared for the UNESCO 2009 World Conference on Higher Education*.
- Andrade, M. S. (2006). International students in English-speaking universities Adjustment factors. *Journal of Research in International Education*, 5(2), 131-154.

- Andrea, A.L. (2014) Sources of Acculturative Stress among International students. Retrieved from <http://www.academia.edu/11591978>.
- Arends-Tóth, J., & Vijver, F. J. R. v. d. (2006). Issues in the conceptualization and assessment of acculturation. In M. H. Bornstein & L. R. Cote (Eds.), *Acculturation and parent-child relationships: Measurement and development* (p. 33–62). Lawrence Erlbaum Associates Publishers.
- Arenstein, L. T. (2015). *Acculturation and important people and programming for Chinese international students at liberal arts colleges*. (Unpublished doctoral dissertation). University of California, Los Angeles.
- Arthur, N. (2003). *Counseling international students: Clients from around the world*. Springer Science & Business Media.
- Arthur, N. (2017). Supporting international students through strengthening their social resources. *Studies in Higher Education*, 42(5), 887-894.
- Aubrey, R. (1991). International students on campus: A challenge for counselors, medical providers, and clinicians. *Smith College Studies in Social Work*, 62(1), 20-33.
- Austin, S. T. (2013). *International and domestic student health-information seeking and satisfaction*. (Unpublished master dissertations). Portland State University.
- Bai, J. (2016a). Development and validation of the Acculturative Stress Scale for Chinese College Students in the United States (ASSCS). *Psychological Assessment*, 28(4), 443.
- Bai, J. (2016b). Perceived support as a predictor of acculturative stress among international students in the United States. *Journal of International Students*, 6(1), 93-106.
- Bailey, T. H., & Phillips, L. J. (2016). The influence of motivation and adaptation on students' subjective well-being, meaning in life and academic performance. *Higher Education Research and Development*, 35(2), 201-216.
- Bang, E.-J., Muriuki, A., & Hodges, J. Q. (2008). International Students at a Midwestern University: Gender, Stress, and Perceived Social Support. *International Journal of Diversity in Organisations, Communities and Nations*, 8(4).
- Bangkok, U. (2013). *The international mobility of students in Asia and the Pacific*. United Nations Educational, Scientific and Cultural Organization & UNESCO Bangkok
- Barker, G. G. (2015). Choosing the best of both worlds: The acculturation process revisited. *International Journal of Intercultural Relations*, 45, 56-69.

- Barletta, J., & Kobayashi, Y. (2007). Cross-Cultural Counselling With International Students. *Australian Journal of Guidance and Counselling*, 17(02), 182-194.
- Barnett, H. G. (1954). Acculturation: an exploratory formulation the social science research council summer seminar on acculturation, 1953: comment. *American Anthropologist*, 56(6), 1000-1002.
- Barratt, M., & Huba, M. (1994). Factors related to international undergraduate student adjustment in an American community. *College Student Journal*, 28(4), 422-436.
- Bartlett, K., & Kane, M. (2002). The national report on international students in Canada 2000/01. *Ottawa, ON: The Canadian Bureau for International Education*.
- Bastien, G., Seifen-Adkins, T., & Johnson, L. R. (2018). Striving for success: Academic adjustment of international students in the US. *Journal of International Students*, 8(2), 1198-1219.
- Befus, C. P. (1988). A multilevel treatment approach for culture shock experienced by sojourners. *International Journal of Intercultural Relations*, 12(4), 381-400. doi:
- Bektaş, D. Y. (2004). *Psychological adaptation and acculturation of the Turkish students in the United States*. (Unpublished doctoral dissertation) Middle East Technical University, Turkey.
- Bektaş, D. Y. (2008). Counselling international students in Turkish universities: Current status and recommendations. *International Journal for the Advancement of Counselling*, 30(4), 268-278.
- Berry, J. W. (1970). Marginality, stress and ethnic identification in an acculturated Aboriginal community. *Journal of Cross-Cultural Psychology*, 1(3), 239-252.
- Berry, J. W. (1976). *Cross-cultural research and methodology series: III. Human ecology and cognitive style: Comparative studies in cultural and psychological adaptation*. Oxford, England: Sage.
- Berry, J. W. (1980). Acculturation as varieties of adaptation. In A. Padilla (Ed.), *Acculturation: Theory, models and findings* (pp. 9-25). Boulder: Westview
- Berry, J. W. (1986). Multiculturalism and psychology in plural societies. *Ethnic Minorities & Immigrants in A Cross-Cultural Perspective*, 35-51.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology*, 46(1), 5-34.

- Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. Balls Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (p. 17–37). American Psychological Association.
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29(6), 697-712.
- Berry, J. W. (2006a). Acculturative stress. In *Handbook of multicultural perspectives on stress and coping* (pp. 287-298). Springer, Boston, MA.
- Berry, J. W. (2006b). Stress perspectives on acculturation. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (p. 43–57). Cambridge University Press.
- Berry, J. W., Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (2002). *Cross-cultural psychology: Research and applications*. Cambridge University Press.
- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 491-511.
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology*, 38(2), 185-206.
- Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology*, 55(3), 303-332.
- Binder, N., Schreier, M., Kühnen, U., & Kedzior, K. K. (2013). Integrating international students into tertiary education using intercultural peer-to-peer training at Jacobs University Bremen, Germany. *Journal of Education and Training Studies*, 1(2), 273-285.
- Blona, R. (2005). *Coping with Stress in a Changing World* (. 3rd ed). The McGraw Hills.
- Blueprint, M. E. (2015). Blueprint 2015-2025 (Higher Education). *Putrajaya, Malaysia: Ministry of Education*.
- Bluth, K., & Neff, K. D. (2018). New frontiers in understanding the benefits of self-compassion. *Self and Identity*, 17(6), 605-608.
- Bochner, S., Furnham, A., & Ward, C. (2001). *The psychology of culture shock* (Second ed). Routledge.
- Bohonos, A. (2009). *Assessing the effectiveness of a career programme for international students*. (Unpublished master Thesis). University of Manitoba. Canada.

- Bonazzo, C., & Wong, Y. J. (2007). Japanese international female students' experience of discrimination, prejudice, and stereotypes. *College Student Journal*, 41(3), 631-640.
- Bowling, A. (2009). *Research methods in health: investigating health and health services* (Second ed). McGraw-Hill.
- Braxton, J. M. (2000). *Reworking the student departure puzzle*. Vanderbilt University Press.
- Brilliant, J. J. (2000). Issues in counseling immigrant college students. *Community College Journal of Research & Practice*, 24(7), 577-586.
- Brodman, K., Erdmann Jr, A. J., Lorge, I., & Gershenson, C. P. (1952). The cornell medical index—health questionnaire. III. The evaluation of emotional disturbances. *Journal of clinical psychology*, 8(2), 119-124.
- Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative Research*, 6(1), 97-113.
- Campbell, M., Grimshaw, J., Steen, N., & Group, C. P. P. i. E. (2000). Sample size calculations for cluster randomised trials. *Journal of Health Services Research & Policy*, 5(1), 12-16.
- Campbell, M. K., Elbourne, D. R., & Altman, D. G. (2004). CONSORT statement: extension to cluster randomised trials. *British Medical Journal*, 328(7441), 702-708.
- Campbell, M. K., & Grimshaw, J. M. (1998). Cluster randomised trials: time for improvement: the implications of adopting a cluster design are still largely being ignored. *British Medical Journal*, 317(7167), 1171.
- Campbell, M. K., Piaggio, G., Elbourne, D. R., & Altman, D. G. (2012). Consort 2010 statement: extension to cluster randomised trials. *British Medical Journal*, 345, e5661.
- Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, 28(3), 391-400.
- Cao, C., Zhu, D. C., & Meng, Q. (2016). An exploratory study of inter-relationships of acculturative stressors among Chinese students from six European union (EU) countries. *International Journal of Intercultural Relations*, 55, 8-19.
- Carr, J. L., Miki Koyama, M., & Thiagarajan, M. (2003). A women's support group for Asian international students. *Journal of American College Health*, 52(3), 131-134.

- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief cope. *International Journal of Behavioral Medicine*, 4(1), 92-100.
- Cawte, J. (1972). *Cruel, poor and brutal nations: The assessment of mental health in an Australian aboriginal community by short-stay psychiatric field team methods*. University of Hawaii Press
- Chang, M. (2015). *Introductory adaptive trial designs: A practical guide with R* (Vol. 75). Chemical Rubber Company (CRC) Press.
- Charles, H., & Stewart, M. A. (1991). Academic advising of international students. *Journal of Multicultural Counseling and Development*, 19(4), 173-181.
- Chee, H. L., & Barraclough, S. (2007). *Health care in Malaysia: The dynamics of provision, financing and access*. Routledge.
- Chen, C. P. (1999). Professional issues: Common stressors among international college students: Research and counseling implications. *Journal of College Counseling*, 2(1), 49-65.
- Chen, J., & Zhou, G. (2019). Chinese International Students' Sense of Belonging in North American Postsecondary Institutions: A Critical Literature Review. *Brock Education: A Journal of Educational Research and Practice*, 28(2), 48-63.
- Cheng, H.-I. C. (2005). Being ill in a foreign land: international students' perceptions of and experiences with university health services. *Kaleidoscope: A Graduate Journal of Qualitative Communication Research*, 3
- Cheng, M. Y., Mahmood, A., & Yeap, P. F. (2013). Malaysia as a regional education hub: a demand-side analysis. *Journal of Higher Education Policy and Management*, 35(5), 523-536.
- Chiu, M. L. (1993). *The influence of anticipatory fear on foreign student adjustment and response to stress inoculation treatment* (Ph.D.thesis). Stanford University, Michigan. Retrieved from <https://search.proquest.com/docview/304061559?accountid=27932>.
- Cho, J., & Yu, H. (2015). Roles of university support for international students in the United States: Analysis of a systematic model of university identification, university support, and psychological well-being. *Journal of Studies in International Education*, 19(1), 11-27.
- Cho, Y. J., Jang, Y., Ko, J. E., Lee, S. H., & Moon, S. K. (2018). Acculturation, acculturative stress, and depressive symptoms in international migrants: a study with Vietnamese women in South Korea. *Journal of Immigrant & Minority Health*, 20(5), 1103-1108.

- Chou, K.-L. (2000). Assessing Chinese adolescents' social support: the multidimensional scale of perceived social support. *Personality and Individual Differences*, 28(2), 299-307.
- Chowdhury, S. K., & Endres, M. L. (2010). The impact of client variability on nurses' occupational strain and injury: Cross-level moderation by safety climate. *Academy of Management Journal*, 53(1), 182-198.
- Church, A. T. (1982). Sojourner adjustment. *Psychological Bulletin*, 91(3), 540.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309.
- Clarke, J., Proudfoot, J., Birch, M.-R., Whitton, A. E., Parker, G., Manicavasagar, V., Hadzi-Pavlovic, D. (2014). Effects of mental health self-efficacy on outcomes of a mobile phone and web intervention for mild-to-moderate depression, anxiety and stress: secondary analysis of a randomised controlled trial. *BMC Psychiatry*, 14(1), 272.
- Cohen, J. (1962). The statistical power of abnormal-social psychological research: a review. *The Journal of Abnormal and Social Psychology*, 65(3), 145.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310.
- Colvin, C., & Jaffar, F. (2007). *Enhancing the international student experience: The importance of international student groups and peer support at Edith Cowan University*. Paper presented at the 10th Pacific Rim First Year in Higher Education Conference.
- Constantine, M. G., Anderson, G. M., Berkel, L. A., Caldwell, L. D., & Utsey, S. O. (2005). Examining the Cultural Adjustment Experiences of African International College Students: A Qualitative Analysis. *Journal of Counseling Psychology*, 52(1), 57.
- Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-concealment, social self-efficacy, acculturative stress, and depression in African, Asian, and Latin American international college students. *American Journal of Orthopsychiatry*, 74(3), 230.
- Copeland, A. P., & Norell, S. K. (2002). Spousal adjustment on international assignments: the role of social support. *International Journal of Intercultural Relations*, 26(3), 255-272.
- Corradini, I., Marano, A., & Nardelli, E. (2015). PRISMA-RA: A set of tools for work related stress risk assessment. *Proceedings of the International Psychological Applications Conference and Trends*.

- Coyne, J. C., & Racioppo, M. W. (2000). Never the Twain shall meet? Closing the gap between coping research and clinical intervention research. *American Psychologist*, 55(6), 655.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage publications.
- Creswell, J. W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson Education, Inc.
- Cross, S. E. (1995). Self-construals, coping, and stress in cross-cultural adaptation. *Journal of Cross-Cultural Psychology*, 26(6), 673-697.
- Dahlem, N. W., Zimet, G. D., & Walker, R. R. (1991). The multidimensional scale of perceived social support: A confirmation study. *Journal of Clinical Psychology*, 47(6), 756-761.
- Dawson, J., & Hacket, J. (2006). *Developing service quality for international students*. Paper presented at the Australian International Conference.
- Deitchman, J. (2014). *Factors influencing the adjustment of international students enrolled at public higher education institutions in New York state: An examination of between group differences* (Ph.D.thesis). University at Albany, New York. Retrieved from <https://search.proquest.com/docview/1549543305?accountid=27932>
- Desa, A., Yusoff, F., & Kadir, N. B. y. A. (2012). Acculturative stress among international postgraduate students at UKM. *Procedia-Social and Behavioral Sciences*, 59, 364-369.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Dona, G., & Berry, J. W. (1994). Acculturation attitudes and acculturative stress of Central American refugees. *International Journal of Psychology*, 29(1), 57-70.
- Donner, A. (1998). Some aspects of the design and analysis of cluster randomization trials. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 47(1), 95-113.
- Du, H., Li, X., Lin, D., & Tam, C. C. (2015). Collectivistic orientation, acculturative stress, cultural self-efficacy, and depression: A longitudinal study among Chinese internal migrants. *Community Mental Health Journal*, 51(2), 239-248.
- Durlak, J. A. (2009). How to select, calculate, and interpret effect sizes. *Journal of Pediatric Psychology*, 34(9), 917-928.

- Duru, E., & Poyrazli, S. (2011). Perceived discrimination, social connectedness, and other predictors of adjustment difficulties among Turkish international students. *International Journal of Psychology*, 46(6), 446-454.
- Eagle, D. E., Hybels, C. F., & Proeschold-Bell, R. J. (2019). Perceived social support, received social support, and depression among clergy. *Journal of Social and Personal Relationships*, 36(7), 2055-2073.
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford University Press.
- Eccles, M., Grimshaw, J., Campbell, M., & Ramsay, C. (2003). Research designs for studies evaluating the effectiveness of change and improvement strategies. *Quality and Safety in Health Care*, 12(1), 47-52.
- Education, M. M. O. (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education)*. Ministry of Education Malaysia.
- Education, M. O. H. (2011). *Internationalisation policy for higher education Malaysia, 2011*. Ministry of Higher Education Malaysia.
- Edwards, K. J., Hershberger, P. J., Russell, R. K., & Markert, R. J. (2001). Stress, negative social exchange, and health symptoms in university students. *Journal of American College Health*, 50(2), 75-79.
- Elemo, A. S., & Turkum, A. S. (2019). The effects of psychoeducational intervention on the adjustment, coping self-efficacy and psychological distress levels of international students in Turkey. *International Journal of Intercultural Relations*, 70, 7-18.
- Elemo, A. S., & Türküm, A. S. (2019). The effects of psychoeducational intervention on the adjustment, coping self-efficacy and psychological distress levels of international students in Turkey. *International journal of Intercultural Relations*, 70, 7-18.
- Eroğlu, Ş. (2018). Trapped in small business? An investigation of three generations of migrants from Turkey to Western Europe. *Journal of Ethnic and Migration Studies*, 44(7), 1214-1232.
- Errey, R., & Wood, G. (2011). Lessons from a student engagement pilot study: Benefits for students and academics. *Australian Universities' Review*, 53(1), 21-34.
- Essandoh, P. K. (1995). Counseling issues with African college students in US colleges and universities. *The Counseling Psychologist*, 23(2), 348-360.
- Eustace, R. W. (2007). *Factors influencing acculturative stress among international students in the United States* (Doctoral dissertation). Kansas State University, Manhattan, Kansas.

- Falavarjani, M. F., & Yeh, C. J. (2018). The impact of acculturation identification and acculturative stress on creativity among Iranian immigrants living in Malaysia. *Journal of Ethnic and Migration Studies*, 44(13), 2219-2239.
- Falavarjani, M. F., Yeh, C. J., & Brouwers, S. A. (2019). Exploring the effects of acculturative stress and social support on the acculturation-depression relationship in two countries of similar social status. *Journal of International Migration and Integration*, 1-20.
- Feldt, R. C., Graham, M., & Dew, D. (2011). Measuring adjustment to college: Construct validity of the student adaptation to college questionnaire. *Measurement and Evaluation in Counseling and Development*, 44(2), 92-104.
- Ferguson, C. J. (2009). An effect size primer: a guide for clinicians and researchers. *Professional Psychology: Research and Practice*, 40(5), 532.
- Fischer-Neumann, M. (2014). Immigrants' ethnic identification and political involvement in the face of discrimination: A longitudinal study of the German case. *Journal of Ethnic and Migration Studies*, 40(3), 339-362.
- Fisher, T. L., Burnet, D. L., Huang, E. S., Chin, M. H., & Cagney, K. A. (2007). Cultural leverage. *Medical Care Research and Review*, 64(5_suppl), 243-282.
- Flemington, T., & Fraser, J. (2017). Building workforce capacity to detect and respond to child abuse and neglect cases: A training intervention for staff working in emergency settings in Vietnam. *International Emergency Nursing*, 34, 29-35.
- Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21, 219-239.
- Folkman, S., Lazarus, R. S., Pimley, S., & Novacek, J. (1987). Age differences in stress and coping processes. *Psychology and Aging*, 2(2), 171.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (1993). *How to design and evaluate research in education* (Eighth ed): McGraw-Hill.
- Franco, M., Hsiao, Y.-S., Gnilka, P. B., & Ashby, J. S. (2019). Acculturative stress, social support, and career outcome expectations among international students. *International Journal for Educational and Vocational Guidance*, 19(2), 275-291.
- Freeman, K., Nga, E., & Mathews, M. (2017). International Students Challenges and Academic Adjustment in Higher Education in Malaysia. *Science International.(Lahore)*, 29(1), 131-134.

- Furnham, A. (2004). Foreign students: Education and culture shock. *The Psychologist*, 17(1), 16–19.
- Furnham, A., & Bochner, S. (1982). Social difficulty in a foreign culture: An empirical analysis of culture shock. *Cultures in contact: Studies in cross-cultural interaction*, 1, 161-198.
- Furr, M. (2011). *Scale construction and psychometrics for social and personality psychology*. SAGE Publications.
- Gable, G. G. (1994). Integrating case study and survey research methods: an example in information systems. *European Journal of Information Systems*, 3(2), 112-126.
- Gabriel, A. E. (2008). *A cognitive restructuring workshop for college students* (PhD Thesis). University of Alabama, Tuscaloosa, United States. Retrieved from <https://search.proquest.com/docview/304682707?accountid=27932>
- Gao, F., Earnest, A., Matchar, D. B., Campbell, M. J., & Machin, D. (2015). Sample size calculations for the design of cluster randomized trials: A summary of methodology. *Contemporary Clinical Trials*, 42, 41-50.
- Gebhard. (2010). *What do international students think and feel?: Adapting to US college life and culture*. University of Michigan Press.
- Gebhard. (2012). International students' adjustment problems and behaviors. *Journal of International Students*, 2(2), 158.
- Gebregergis, W. T., Huang, F., & Hong, J. (2019). Cultural intelligence, Age and Prior Travel Experience as Predictors of Acculturative Stress and Depression among International Students Studying in China. *Journal of International Students*, 9(2), 511-534.
- Geelhoed, R. J., Abe, J., & Talbot, D. M. (2003). A qualitative investigation of US students' experiences in an international peer programme. *Journal of College Student Development*, 44(1), 5-17.
- Gibson, L. W., Lounsbury, J. W., & Saudargas, R. A. (2004). An investigation of personality traits in relation to intention to withdraw from college. *Journal of College Student Development*, 45(5), 517-534.
- Gilbert, L. A., & Scher, M. (2009). *Gender and sex in counseling and psychotherapy*. Wipf and Stock Publishers.
- Girmay, M., & Singh, G. K. (2019). Social Isolation, Loneliness, and Mental and Emotional Well-being among International Students in the United States. *International Journal of Translational Medical Research and Public Health*, 3(2), 75-82.

- Glass, C. R., & Westmont, C. M. (2014). Comparative effects of belongingness on the academic success and cross-cultural interactions of domestic and international students. *International Journal of Intercultural Relations*, 38, 106-119.
- Graves, T. D. (1967). Acculturation, Access, and Alcohol in a Tri- Ethnic Community. *American Anthropologist*, 69(3- 4), 306-321.
- Guidry Lacina, J. (2002). Preparing international students for a successful social experience in higher education. *New Directions for Higher Education*, 117, 21-28.
- Guo, S., & Chase, M. (2011). Internationalisation of higher education: Integrating international students into Canadian academic environment. *Teaching in Higher Education*, 16(3), 305-318.
- Gupchup, G. V., Borrego, M. E., & Konduri, N. (2004). The impact of student life stress on health related quality of life among doctor of pharmacy students. *College Student Journal*, 38(2), 292.
- Hahn, Z. L. (2010). *Coping with acculturative stress and depression among international students: A cultural perspective* (Doctoral dissertation). University of Pennsylvania, Philadelphia.
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis: a global perspective* (7th ed). Pearson Education Inc.
- Hair, J. J. F., Black, W. C., Babin, B. J., E, A. R., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). New Jersey: Prentice Hall.
- Hamdan-Mansour, A. M., Puskar, K., & Bandak, A. G. (2009). Effectiveness of cognitive-behavioral therapy on depressive symptomatology, stress and coping strategies among Jordanian university students. *Issues in Mental Health Nursing*, 30(3), 188-196.
- Hamid, S., & Bukhari, S. (2015). *Information seeking behaviour and international students: The role of social media in addressing challenges while abroad*. Proceedings of the 5th International Conference on Computing and Informatics. Istanbul, Turkey.
- Han, S.-J., & Han, K.-H. (2016). A Research on the Stress of Cultural Adaptation and Adaptation to the Korean Culture of the International Students from Mongolia-Focusing on the moderating effect from the social support. *International Information Institute (Tokyo). Information*, 19(10A), 4325.
- Hang, B. T. T., Kaur, A., & Nur, A. H. B. (2017). A Self-Determination Theory Based Motivational Model on Intentions to Drop out of Vocational Schools in Vietnam. *Malaysian Journal of Learning and Instruction*, 14(1), 1-21.

- Hansen, H. R., Shneyderman, Y., McNamara, G. S., & Grace, L. (2018). Acculturative stress and native and US culture immersion of international students at a community college. *Journal of International Students*, 8(1), 215–232
- Harris, P., Campbell Casey, S., Westbury, T., & Florida-James, G. (2015). Assessing the link between stress and retention and the existence of barriers to support service use within HE. *Journal of Further and Higher Education*, 1-22.
- Hayes, R. L., & Lin, H. R. (1994). Coming to America: Developing social support systems for international students. *Journal of Multicultural Counseling and Development*, 22(1), 7-16.
- Health, U. D. O., & Services, H. (2001). *National Standards for Culturally and Linguistically Appropriate Services in Health Care*. Retrieved from <https://minorityhealth.hhs.gov/>
- Hechanova-Alampay, R., Beehr, T. A., Christiansen, N. D., & Van Horn, R. K. (2002). Adjustment and strain among domestic and international student sojourners a longitudinal study. *School Psychology International*, 23(4), 458-474.
- Hefferin, E. A. (1980). Life-Cycle Stressors: An Overview of Research. *Family & Community Health*, 2(4), 71-101.
- Heikinheimo, P., & Shute, J. (1986). The adaptation of foreign students: Student views and institutional implications. *Journal of College Student Personnel*, 27(5), 399–406.
- Helman, C. (2000). *Culture, Health and Illness : Gender and reproduction* (5th ed). University Oxford Press.
- Hemsley-Brown, J., & Oplatka, I. (2006). Universities in a competitive global marketplace: A systematic review of the literature on higher education marketing. *International Journal of Public Sector Management*, 19(4), 316-338.
- Hendrickson, B., & Rosen, D. (2017). Insights into new media use by international students: Implications for cross-cultural adaptation theory. *Social Networking*, 6(02), 81-106.
- Hendrickson, B., Rosen, D., & Aune, R. K. (2011). An analysis of friendship networks, social connectedness, homesickness, and satisfaction levels of international students. *International Journal of Intercultural Relations*, 35(3), 281-295.
- Heng, T. T. (2017). Voices of Chinese international students in USA colleges: 'I want to tell them that...'. *Studies in Higher Education*, 42(5), 833-850.

- Higgins, J. P., & Green, S. (2011). *Cochrane handbook for systematic reviews of interventions* (Vol. 4). John Wiley & Sons.
- Hijazi, A. M., Tavakoli, S., Slavin-Spenny, O. M., & Lumley, M. A. (2011). Targeting interventions: Moderators of the effects of expressive writing and assertiveness training on the adjustment of international university students. *International Journal for the Advancement of Counselling*, 33(2), 101-112.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1(1), 104-121.
- Hinton, P., Brownlow, C., & McMurray, I. (2004). *SPSS explained* (second ed). Routledge.
- 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.
- Ho, N. K. N., Schweitzer, R. D., & Khawaja, N. G. (2017). Academic achievement among recently arrived Chinese adolescent migrants: The role of social support, school belonging, and acculturative stress. *Journal of Psychologists and Counsellors in Schools*, 27(1), 24-36.
- Hofstede, G. (1991). Management in a multicultural society. *Malaysian Management Review*, 26(1), 3-12.
- Holahan, C. J., & Moos, R. H. (1987). Risk, resistance, and psychological distress: a longitudinal analysis with adults and children. *Journal of Abnormal Psychology*, 96(1), 3.
- Hudd, S., Dumlao, J., Erdmann-Sager, D., Murray, D., Phan, E., Soukas, N., & Yokozuka, N. (2000). Stress at college: Effects on health habits, health status and self-esteem. *College Student Journal*, 34(2), 217.
- Huh, D., Flaherty, B. P., & Simoni, J. M. (2012). Optimizing the analysis of adherence interventions using logistic generalized estimating equations. *AIDS and Behavior*, 16(2), 422-431.
- Hull, W. F. (1978). *Foreign students in the United States of America: Coping behavior within the educational environment*. Praeger.
- Hyde, J. S., & Plant, E. A. (1995). Magnitude of psychological gender differences: Another side to the story. *American Psychologist*, 50(3), 159-161.
- Hyun, J., Quinn, B., Madon, T., & Lustig, S. (2007). Mental health need, awareness, and use of counseling services among international graduate students. *Journal of American College Health*, 56(2), 109-118.

- Idowu, A. P., Augustine, O. D., & Folashade, A. W. (2019). The psychosocial challenges and implications on students adjustment in multicultural Nigerian schools. *IFE Psychologia: An International Journal*, 27(1), 75-86.
- Ilgan, P. (1997). *Buddy Programme: A participatory approach to cross-cultural adjustment of international students* (Master dissertation). University of Manitoba, Canada. Retrieved from <https://search.proquest.com/docview/304378830?accountid=27932>
- Ippolito, K. (2007). Promoting intercultural learning in a multicultural university: Ideals and realities. *Teaching in Higher Education*, 12(5-6), 749-763.
- Islam, W., & Borland, H. (2006). *South Asian Students' Adaptation Experiences in an Australian Postgraduate Coursework Environment*. Paper presented in: 17th International Conference ISANA, 5-8 Dec 2006, Sydney.
- Jackson, M., Ray, S., & Bybell, D. (2013). International students in the US: Social and psychological adjustment. *Journal of International Students*, 3(1), 17-28.
- Jackson, M., Ray, S., & Bybell, D. (2019). International students in the US: Social and psychological adjustment. *Journal of International Students*, 3(1), 17-28.
- Jacob, E. J., & Greggo, J. W. (2001). Using Counselor Training and Collaborative Programming Strategies in Working With International Students: Utilizando el entrenamiento de consejeros y estrategias de programación colaborativa al servir a estudiantes internacionales. *Journal of Multicultural Counseling and Development*, 29(1), 73-88.
- Jamaludin, N. L., Sam, D. L., & Sandal, G. M. (2018). Destination Motivation, Cultural Orientation, and Adaptation: International Students' Destination-Loyalty Intention. *Journal of International Students*, 8(1), 38-65.
- Jamsiah, M., Taher, S., & Jamil, A. T. (2014). Stress among international postgraduate students at universiti kebangsaan Malaysia medical centre (UKMMC). *Malaysian Journal of Public Health Medicine*, 14(2), 21-33.
- Jancey, J., & Burns, S. (2013). Institutional factors and the postgraduate student experience. *Quality Assurance in Education*, 21(3), 311-322.
- Jin, L. (2017). *A Web-Based Intervention with Culturally Tailored Messages to Improve Mental Health Among Asian International Students with Mild-to-Moderate Depression: A Pilot Randomized Controlled Trial* (Doctoral dissertation). Purdue University, India. Retrieved from <https://search.proquest.com/docview/2016127949?accountid=27932>
- Johnson, L. R., & Sandhu, D. S. (2007). Isolation, adjustment, and acculturation issues of international students: Intervention strategies for counselors. In H. D. Singaravelu & M. Pope (Eds.), *A handbook for counseling international students in the United States* (p. 13-35). American Counseling Association.

- Johnson, L. R., Seifen-Adkins, T., Sandhu, D. S., Arbles, N., & Makino, H. (2018). Developing Culturally Responsive Programmes to Promote International Student Adjustment: A Participatory Approach. *Journal of International Students*, 8(4), 1865–1878.
- Jones, E. (2017). Problematising and reimagining the notion of ‘international student experience’. *Studies in Higher Education*, 42(5), 933-943.
- Junius, D. P. (1997). A study of the problems experienced by international students at Northern Arizona University. *Dissertation Abstract International*. Northern Arizona University, Arizona.
- Kaczmarek, P. G., Matlock, G., Merta, R., Ames, M. H., & Ross, M. (1994). An assessment of international college student adjustment. *International Journal for the Advancement of Counselling*, 17(4), 241-247.
- Kağnıcı, D. Y. (2012). The role of multicultural personality in predicting university adjustment of international students in Turkey. *International Journal for the Advancement of Counselling*, 34(2), 174-184.
- Kariv, D., & Heiman, T. (2005). Task-oriented versus emotion-oriented coping strategies: the case of college students. *College Student Journal*, 39(1), 72.
- Kassim, A., & Yean, T. (2013). Public universities: Development and internationalization. *Internationalizing Higher Education in Malaysia: Understanding, Practices and Challenges* (41-64). ISEAS–Yusof Ishak Institute
- Kaul, A. (2001). *Predictors of positive adaptation among international students in the United States* (Unpublished doctoral dissertation). University of Memphis, Tennessee.
- Kaur, A. (2018). *Effect of Perceived Stress and Coping Strategies on Resilience and Emotional Reactivity* (Master dissertation). Thapar Institute of Engineering and Technology, India.
- Kerlinger, F. N. (1966). *Foundations of behavioral research*. Holt, Rinehart and Winston.
- Khawaja, N. G., & Duncanson, K. (2008). Using the university student depression inventory to investigate the effect of demographic variables on Students' depression. *Journal of Psychologists and Counsellors in Schools*, 18(2), 195-209.
- Khine, M. S. (2015). *Science Education in East Asia*. Springer.
- Khodarahimi, S., Hashim, I. H., & Mohd-Zaharim, N. (2012). Perceived stress, positive-negative emotions, personal values and perceived social support in Malaysian undergraduate students. *International Journal of Psychology and Behavioral Sciences*, 2(1), 1-8.

- Kim, B., Jee, S., Lee, J., An, S., & Lee, S. M. (2018). Relationships between social support and student burnout: A meta-analytic approach. *Stress and Health*, 34(1), 127-134.
- Kim, E. (2007). *Acculturative stress, social support and social adjustment of marriage-based immigrant women* (Unpublished master's thesis). Chungbuk National University.
- Kim, J., & Shin, W. (2014). How to do random allocation (randomization). *Clinics in Orthopedic Surgery*, 6(1), 103-109.
- Klineberg, O., & Hull IV, F. W. (1979). *At a foreign university: An international study of adaptation and coping*. Praeger.
- Klomegah, R. Y. (2006). Social factors relating to alienation experienced by international students in the united states. *College Student Journal*, 40(2), 303-315.
- Knowles, L. (2003). *Acculturation disparity: An emic perspective from international students enrolled in two South Florida institutions of higher education* (Doctoral dissertation). Lynn University, Florida. Retrieved from <https://spiral.lynn.edu/etds/136>
- Kofman, E. (2013). Gendered labour migrations in Europe and emblematic migratory figures. *Journal of Ethnic and Migration Studies*, 39(4), 579-600.
- Kosic, A. (2004). Acculturation strategies, coping process and acculturative stress. *Scandinavian Journal of Psychology*, 45(4), 269-278.
- Kosic, A., Kruglanski, A. W., Pierro, A., & Mannetti, L. (2004). The social cognition of immigrants' acculturation: effects of the need for closure and the reference group at entry. *Journal of Personality and Social Psychology*, 86(6), 796.
- Krahé, B., Abraham, C., Felber, J., & Helbig, M. K. (2005). Perceived discrimination of international visitors to universities in Germany and the UK. *British Journal of Psychology*, 96(3), 263-281.
- Krishnan, A., & Berry, J. W. (1992). Acculturative Stress and Acculturation Attitudes Among Indian Immigrants to the United States. *Psychology and Developing Societies*, 4(2), 187-212.
- Krohne, H. W. E. (1993). *Attention and avoidance: Strategies in coping with aversiveness*. Hogrefe & Huber Publishers.
- Kuhlmann, A., & Sauter, W. (2008). *Innovative learning systems: competence development with blended learning and social software*. Springer publishing house

- Kumi–Yeboah, A., & James, W. (2014). Transformative learning experiences of international graduate students from Asian countries. *Journal of Transformative Education*, 12(1), 25-53.
- Kuo, B. C. (2014). Coping, acculturation, and psychological adaptation among migrants: a theoretical and empirical review and synthesis of the literature. *Health Psychology and Behavioral Medicine Journal*, 2(1), 16-33.
- Kuo, Y.-H. (2011). Language challenges faced by international graduate students in the United States. *Journal of International Students*, 1(2).
- Ladum, A., & Burkholder, G. J. (2019). Psychological Adaptation of International Students in the Northern Part of Cyprus. *Higher Learning Research Communications*, 9(1), 1.
- Lam, J. M., Tong, D. Y. K., & Ariffin, A. A. M. (2017). Exploring perceived risk and risk reduction strategies in the pursuit of higher education abroad: a case of international students in Malaysia. *Journal of Studies in International Education*, 21(2), 83-104.
- Lama, S. (2013). Attitudes and Perceptions of Mental Disorders among Individuals from Nepal.
- Langner, T. S. (1962). A twenty-two item screening score of psychiatric symptoms indicating impairment. *Journal of Health and Human Behavior*, 3(4), 269-276.
- Lasanowski, V. (2009). *International student mobility: Status report 2009*. Observatory on Borderless Higher Education.
- Lashari, S. A., Kaur, A., & Awang-Hashim, R. (2018). Home Away from Home-- The Role of Social Support for International Students' Adjustment. *Malaysian Journal of Learning and Instruction*, 15(2), 33-54.
- Lave, J., & Wenger, E. (2016). *Situated learning: Legitimate peripheral participation*. Cambridge university press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- Lee, D. S., & Padilla, A. M. (2014). Acculturative stress and coping: gender differences among Korean and Korean American university students. *Journal of College Student Development*, 55(3), 243-262.
- Lee, H., Chae, D., Wilbur, J., Miller, A., Lee, K., & Jin, H. (2014). Effects of a 12 week self- managed stretching programme among Korean–Chinese female migrant workers in Korea: A randomized trial. *Japan Journal of Nursing Science*, 11(2), 121-134.

- Lee, J.-y., & Ciftci, A. (2014). Asian international students' socio-cultural adaptation: Influence of multicultural personality, assertiveness, academic self-efficacy, and social support. *International Journal of Intercultural Relations*, 38, 97-105.
- Lee, J. (2008). *Stress and coping experiences of international students with language barriers during the acculturation process* (Doctoral dissertation). University of Florida, Florida.
- Lee, J. J., & Rice, C. (2007). Welcome to America? International student perceptions of discrimination. *Higher Education*, 53(3), 381-409.
- Lemeshow, S., Hosmer, D. W., Klar, J., Lwanga, S. K., & Organization, W. H. (1990). *Adequacy of sample size in health studies*. Chichester: Wiley.
- Leon, R. A., & Chmiel, J. (2013). Counseling international students: Clients from around the world. *Journal of International Students*, 3(2), 190-192.
- Leung, A. K.-y., & Chiu, C.-y. (2010). Multicultural experience, idea receptiveness, and creativity. *Journal of Cross-Cultural Psychology*, 41(5-6), 723-741.
- Lewthwaite, M. (1996). A study of international students' perspectives on cross-cultural adaptation. *International Journal for the Advancement of Counselling*, 19(2), 167-185.
- Li, H., Fox, R. F., & Almarza, D. J. (2007). Strangers in stranger lands: Language, learning, culture. *International Journal of Progressive Education*, 3(1), 1.
- 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.
- Li, L., & Peng, W. (2019). Transitioning through social media: International students' SNS use, perceived social support, and acculturative stress. *Computers in Human Behavior*, 98, 69-79.
- Lian, Z., & Wallace, B. C. (2018). Prevalence of past-year mental disorders and its correlates among Chinese international students in US higher education. *Journal of American College Health*, 1-9.
- Lidy, K. M., & Kahn, J. H. (2006). Personality as a predictor of first-semester adjustment to college: The mediational role of perceived social support. *Journal of College Counseling*, 9(2), 123-135.
- Lin, J.-C. G., & Yi, J. K. (1997). Asian international students' adjustment: Issues and programme suggestions. *College Student Journal*, 31, 473-479
- Liu, M. (2009). Addressing the mental health problems of Chinese international college students in the United States. *Advances in Social Work*, 10(1), 69-86.

- Lonner, W. (2007). *Handbook of multicultural perspectives on stress and coping*. Springer Science & Business Media.
- Lounsbury, J. W., Saudargas, R. A., & Gibson, L. W. (2004). An investigation of personality traits in relation to intention to withdraw from college. *Journal of College Student Development*, 45(5), 517-534.
- Luo, J., & Jamieson-Drake, D. (2015). Predictors of study abroad intent, participation, and college outcomes. *Research in Higher Education*, 56(1), 29-56.
- Lynn, M. R. (1986). Determination and quantification of content validity. *Nursing Research*, 35(6), 382-386.
- Maadad, N. (2014). Global academics moving down under: Living and learning a new academic culture, *International Perspectives on Higher Education Research*. Emerald Group Publishing Limited (Volume 11., pp. 137-151).
- Madanian, L., Mansor, S. M. S. S., & Omar, A. H. b. (2013). Marital Satisfaction of Iranian Female Students in Malaysia: A Qualitative Study. *Procedia-Social and Behavioral Sciences*, 84, 987-993.
- Madden-Dent, T. E. (2014). *A Phenomenological study of cultural transition and adjustment of Asian undergraduate international students using different cross-cultural treatments* (Doctoral dissertation). University of Nevada, Reno, Michigan. Retrieved from <https://search.proquest.com/docview/1556799831?accountid=27932>
- Mahfoodh, O. H. A. (2014). Oral Academic Discourse Socialisation: Challenges Faced by International Undergraduate Students in a Malaysian Public University. *International Education Studies*, 7(2), 10-17.
- Mahmood, H. (2014). An analysis of acculturative stress, sociocultural adaptation, and satisfaction among international students at a non-metropolitan university. *Journal of International Students*, 8(1), 284-307.
- Mahmood, H., & Burke, M. G. (2018). 8 An Analysis of Acculturative Stress, Sociocultural Adaptation, and Satisfaction Among International Students. *Global Perspectives on International Student Experiences in Higher Education: Tensions and Issues*, 108.
- Mahmud, Z., Amat, S., Rahman, S., & Ishak, N. M. (2010). Challenges for international students in Malaysia: Culture, climate and care. *Procedia-Social and Behavioral Sciences*, 7, 289-293.
- Mak, A., Barker, M., Logan, G., & Millman, L. (1999). Benefits of cultural diversity for international and local students: Contributions from an experiential social learning programme (The EXCELL Programme). *International education: The professional Edge*, 63-76.

- Mak, A., Westwood, M., Barker, M., & Ishiyama, I. (1998). Developing sociocultural competencies for success among international students: The Excell programme. *Journal of international Education*, 9, 33-38.
- Mak, A. S., & Buckingham, K. (2007). Beyond communication courses: Are there benefits in adding skills-based Excell™ sociocultural training? *International Journal of Intercultural Relations*, 31(3), 277-291.
- Malau-Aduli, B. S. (2011). Exploring the experiences and coping strategies of international medical students. *BMC Medical Education*, 11(1), 40.
- Malekian, K. A., & Khan, A. (2017). Determinants Of Burnout And Stress On Students Health: A Study Of Iranian Expatriate International Students. *Sains Humanika*, 9(1-4).
- Mallinckrodt, B., & Leong, F. T. (1992). International graduate students, stress, and social support. *Journal of College Student Development*, 33(1), 71-78.
- Mann, J. W. (1958). Group relations and the marginal personality. *Human Relations*, 11(1), 77-92.
- Manyika, S. (2001). Negotiating identities: African students in British and American universities. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 62(1-A), 97.
- Martirosyan, N. M., Hwang, E., & Wanjohi, R. (2015). Impact of English proficiency on academic performance of international students. *Journal of International Students*, 5(1), 60-71.
- Martuza, V. R. (1977). *Applying norm-referenced and criterion-referenced measurement in education*. Allyn & Bacon, Incorporated.
- Masgoret, A.-M., & Ward, C. (2006). Culture learning approach to acculturation. *The Cambridge Handbook of Acculturation Psychology*, 58-77.
- Maslow, A. H. (1971). *The farther reaches of human nature*. Viking Press.
- Mazo, G. N. (2015). Causes, effects of stress, and the coping mechanisms of political science students in a philippine university. *International Journal of Education and Research*, 3(2), 135-148.
- McClelland, A. N. (1995). *The acculturation attitudes and acculturative stress of international students* (Master dissertation). Carleton University, Canada.
- McGrath, E. E., Keita, G. P. E., Strickland, B. R., & Russo, N. F. E. (1990). *Women and depression: Risk factors and treatment issues: Final report of the American Psychological Association's National Task Force on Women and Depression*. American Psychological Association.

- McKinlay, N. J., Pattison, H. M., & Gross, H. (1996). An exploratory investigation of the effects of a cultural orientation programme on the psychological well-being of international university students. *Higher Education*, 31(3), 379-395.
- Meng, Q., Zhu, C., & Cao, C. (2017). Chinese international students' social connectedness, social and academic adaptation: the mediating role of global competence. *Higher Education*, 1-17.
- Meng, Q., Zhu, C., & Cao, C. (2018). Chinese international students' social connectedness, social and academic adaptation: The mediating role of global competence. *Higher Education*, 75(1), 131-147.
- Mesidor, J. K., & Sly, K. F. (2016). Factors That Contribute to the Adjustment of International Students. *Journal of International Students*, 6(1), 262-282.
- Milkie, M. A., & Thoits, P. A. (1993). Gender differences in coping with positive and negative experiences. *Unpublished Manuscript, Indian University*.
- Miller, M. J., Kim, J., & Benet-Martínez, V. (2011). Validating the riverside acculturation stress inventory with Asian Americans. *Psychological Assessment*, 23(2), 300.
- Misra, R., Crist, M., & Burant, C. J. (2003). Relationships Among Life Stress, Social Support, Academic Stressors, and Reactions to Stressors of International Students in the United States. *International Journal of Stress Management*, 10(2), 137.
- Misra, R., & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. *American Journal of Health Studies*, 16(1), 41-51.
- Misra, R., McKean, M., West, S., & Russo, T. (2000). Academic stress of college students: Comparison of student and faculty perceptions. *College Student Journal*. 34(2), 236.
- Mohd Yusoff, Y., & Nadrajah, S. (2010). *International student experience in a Malaysian public university: Self-efficacy and socio-cultural adjustment*. Paper presented at the Third International Conference on International Studies, pp. 1-12. Kuala Lumpur, Malaysia.
- Molinsky, A. (2007). Cross-cultural code-switching: The psychological challenges of adapting behavior in foreign cultural interactions. *Academy of Management Review*, 32(2), 622-640.
- Morela, E., Elbe, A.-M., Theodorakis, Y., & Hatzigeorgiadis, A. (2019). Sport participation and acculturative stress of young migrants in Greece: The role of sport motivational environment. *International Journal of Intercultural Relations*, 71, 24-30.

- Mori, S. C. (2000). Addressing the mental health concerns of international students. *Journal of Counseling & Development, 78*(2), 137-144.
- Msengi, I. G. (2007). Sources of stress and its impact on health behaviors and academic performance of international students at a comprehensive Midwestern University. *International Journal of Global Health and Health Disparities, 5*(1), 55-69.
- Mudhovozi, P. (2011). Adjustment experiences of international students at a South African University. *Journal of Psychology in Africa, 21*(2), 293-296.
- Nachatar Singh, J. K. (2018). What are the factors that contribute to postgraduate international students' academic success? A Malaysian qualitative study. *Higher Education Research & Development, 37*(5), 1035-1049.
- Nachatar Singh, J. K. (2019). Evidence and benefits of postgraduate international students-staff members partnership in extra-curricular activities: a Malaysian perspective. *Higher Education Research and Development, 38*(7), 1475-1488.
- Naeeni, N. V., Mahmud, Z., Salleh, A. B. M., Amat, S., Maros, M., & Morgan, M. M. (2015). Psycho-educational support groups and international university student adjustment in Malaysia: A qualitative inquiry. *Australasian Journal of Social Science, 1*(1), 20-38.
- Nasirudeen, A., & Josephine, K. W. N. (2019). Acculturative stress among Asian international students in Singapore. *Journal of International Students, 4* (1), 363-373.
- Nazir, T. (2018). *International student's challenges and adjustment in Turkish universities, a case study based on Ankara*. Paper presented at the 4th International Social Science Congress, Nevsehir, Turkey
- Nesdale, D., & Todd, P. (2000). Effect of contact on intercultural acceptance: A field study. *International Journal of Intercultural Relations, 24*(3), 341-360.
- Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling procedures: Issues and applications*. Sage Publications.
- Ng, J. C., & Rury, J. L. (2006). Poverty and education: A critical analysis of the Ruby Payne phenomenon. *Teachers College Record, 18*.
- Ng, L. C. (2001). *Loneliness, perceived social support, and coping among international students* (Unpublished doctoral dissertation). Spalding University, Kentucky.
- Noh, S., & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American Journal of Public Health, 93*(2), 232-238.

- Nolen-Hoeksema, S., & Hilt, L. M. (2008). The emergence of gender differences in depression in adolescence. In *Handbook of depression in adolescents* (pp. 127-152). Routledge.
- Norberg, M. M., Newins, A. R., Jiang, Y., Xu, J., Forcadell, E., Alberich, C., & Deacon, B. J. (2018). The scarier the better: Maximizing exposure therapy outcomes for spider fear. *Behavioural and Cognitive Psychotherapy*, 46(6), 754-760.
- Nursyazana, M. N. (2011). *The Sources of Acculturative Stress Among International Students* (Doctoral dissertation). Universiti Utara Malaysia.
- Nwadiora, E., & McAdoo, H. (1996). Acculturative stress among Amerasian refugees: Gender and racial differences. *Adolescence*, 31(122), 477.
- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, 7(4), 177-182.
- OECD-Organization for Economic Cooperation and Development. (2017). *Education at a Glance 2017: OECD Indicators*. OECD Publishing.
- OECD (2018). *Education at a Glance 2018: OECD Indicators*. OECD Publishing
- Olagoke-Oladokun, L. I., Mokhtar, M., & Hassan, Z. B. (2019). Alleviating Culture Shock Experience Among Nigerian Students Studying Abroad: Effects On Migrated Nigerian Students Studying Abroad. *Education, Sustainability & Society (ESS)*, 2(3), 16-20.
- Otlu, F. N. (2010). *College adjustment of international students: the role of gender, acculturative stress, coping skills, cultural distance, and perceived social support* (Master dissertation). Middle East Technical University.
- Organization, W. H. (2017). *Building resilience: a key pillar of Health 2020 and the Sustainable Development Goals; Examples from the WHO Small Countries Initiative*. Copenhagen, WHO Regional office for Europe
- Organization, W. H. (2018). *What quantitative and qualitative methods have been developed to measure health-related community resilience at a national and local level*. Copenhagen: WHO Regional Office for Europe; 2018 (Health Evidence Network (HEN) synthesis report 60).
- Othman, A. K. (2011). An early study on perceived social support and psychological adjustment among international students: the case of a higher learning institution in malaysia. *International Journal of Business & Society*, 12(2).
- Overzat, T. B. (2019). *An Examination of Affectivity, Depression, and Acculturative Stress in Asian International College Students Using an Online Written Disclosure Protocol*. (Doctoral dissertation). Mercer University, Ann Arbor. Retrieved from <https://search.proquest.com/docview/2302688412?accountid=27932>

- Owens, A. R., & Loomes, S. L. (2010). Managing and resourcing a programme of social integration initiatives for international university students: what are the benefits? *Journal of Higher Education Policy and Management*, 32(3), 275-290.
- Page, N., Beecher, M. E., Griner, D., Smith, T. B., Jackson, A. P., Hobbs, K., & Kirchhoefer, J. (2019). International Student Support Groups: Learning from Experienced Group Members and Leaders. *Journal of College Student Psychotherapy*, 33(3), 180-198.
- Pal, S. (2012). Mining educational data to reduce dropout rates of engineering students. *International Journal of Information Engineering and Electronic Business*, 4(2), 1.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*: Open University Press.
- Pan, J.-Y., Ng, P., Young, D. K.-W., & Caroline, S. (2017a). Effectiveness of cognitive behavioral group intervention on acculturation: A study of students in Hong Kong from mainland China. *Research on Social Work Practice*, 27(1), 68-79.
- Pan, J.-Y., Wong, D. F. K., Joubert, L., & Chan, C. L. W. (2008). The protective function of meaning of life on life satisfaction among Chinese students in Australia and Hong Kong: A cross-cultural comparative study. *Journal of American College Health*, 57(2), 221-232.
- Pan, J.-Y., Yue, X., & Chan, C. L. (2010). Development and validation of the acculturative Hassles scale for chinese students (AHSCS): An example of mainland Chinese university students in Hong Kong. *Psychologia*, 53(3), 163-178.
- Pan, J. Y., Ng, P., Young, D. K. W., & Caroline, S. (2017b). Effectiveness of Cognitive Behavioral Group Intervention on Acculturation: A Study of Students in Hong Kong from Mainland China. *Research on Social Work Practice*, 27(1), 68-79.
- Pandian, A. (2002). English language teaching in Malaysia today. *Asia Pacific Journal of Education*, 22(2), 35-52.
- Pandian, A. (2008). Multiculturalism in higher education: a case study of middle eastern students' perceptions and experiences in a Malaysian University. *International Journal of Asia Pacific Studies*, 4(1), 33-59.
- Pandian, A., Baboo, S. B., & Mahfoodh, O. H. A. (2016). Influence of multiculturalism on the study programmes in Malaysian public universities: international students' perceptions. *Studies in Higher Education*, 41(7), 1133-1152.

- Par, M., Hassan, S. A., Uba, I., & Baba, M. (2015). Perceived Stress among International Postgraduate Students in Malaysia. *International Journal of Psychological Studies*, 7(4), 1.
- Park, C. L., & Adler, N. E. (2003). Coping style as a predictor of health and well-being across the first year of medical school. *Health Psychology*, 22(6), 627.
- Park, H.-S., & Rubin, A. (2012). The mediating role of acculturative stress in the relationship between acculturation level and depression among Korean immigrants in the US. *International Journal of Intercultural Relations*, 36(5), 611-623.
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, 5(2), 164.
- Pearlin, L. I. (1999). Stress and mental health: A conceptual overview. In A. V. Horwitz & T. L. Scheid (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (p. 161–175). Cambridge University Press.
- Pedersen, E. R., Neighbors, C., Atkins, D. C., Lee, C. M., & Larimer, M. E. (2017). Brief online interventions targeting risk and protective factors for increased and problematic alcohol use among American college students studying abroad. *Psychology of Addictive Behaviors*, 31(2), 220.
- Pedersen, E. R., Neighbors, C., Larimer, M. E., & Lee, C. M. (2011). Measuring sojourner adjustment among American students studying abroad. *International journal of intercultural relations*, 35(6), 881-889.
- Pedersen, P. B. (1991). Counseling international students. *The counseling psychologist*, 19(1), 10-58.
- Pena, A. (2019). Acculturative Stress and Trauma in Cuban Immigrants within the First Year of Arrival to the United States. Spalding University.
- Pengilly, J. W., & Dowd, E. T. (2000). Hardiness and social support as moderators of stress. *Journal of Plinical psychology*, 56(6), 813-820.
- Pereira, A. M. S. (1997). *Helping students cope: Peer counselling in higher education* (Doctoral dissertation). University of Hull, England.
- Peter, J. P. (1981). Construct validity: A review of basic issues and marketing practices. *Journal of Marketing Research (JMR)*, 18(2).
- Peterson, D. M., Briggs, P., Dreasher, L., Horner, D. D., & Nelson, T. (1999). Contributions of international students and programmes to campus diversity. *New Directions for Student Services*, 86, 67-77.
- Phinney, J. S. (1991). Ethnic identity and self-esteem: A review and integration. *Hispanic Journal of Behavioral Sciences*, 13(2), 193-208.

- Phinney, J. S., & Onwughalu, M. (1996). Racial identity and perception of American ideals among African American and African students in the United States. *International Journal of Intercultural Relations*, 20(2), 127-140.
- Poyrazli, S., Arbona, C., Bullington, R., & Pisecco, S. (2001). Adjustment issues of Turkish college students studying in the United States. *College Student Journal*, 35(1), 52.
- Poyrazli, S., & Grahame, K. M. (2007). Barriers to adjustment: Needs of international students within a semi-urban campus community. *Journal of Instructional Psychology*, 34(1), 28.
- Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling*, 7(1), 73-82.
- 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.
- Pritchard, R. M., & Skinner, B. (2002). Cross-cultural partnerships between home and international students. *Journal of Studies in International Education*, 6(4), 323-353.
- Proudfoot, J., Ryden, C., Everitt, B., Shapiro, D. A., Goldberg, D., Mann, A., . . . Gray, J. A. (2004). Clinical efficacy of computerised cognitive-behavioural therapy for anxiety and depression in primary care: randomised controlled trial. *The British Journal of Psychiatry*, 185(1), 46-54.
- Pruitt, F. J. (1978). The adaptation of African students to American society. *International Journal of Intercultural Relations*, 2(1), 90-118.
- Puspitasari, A. W. (2011). *The influence of perceived stress and culture shock among international postgraduate students' academic achievement in Universiti Utara Malaysia* (Doctoral dissertation). Universiti Utara Malaysia.
- Rai, G. S. (2002). Meeting the educational needs of international students: A perspective from US schools. *International Social Work*, 45(1), 21-33.
- Rajab, A., Rahman, H. A., Panatik, S. A., & Mansor, N. S. (2014). Acculturative stress among international students. *Shock*, 21(277), 80.
- Rajapaksa, S., & Dundes, L. (2002). It's a long way home: International student adjustment to living in the United States. *Journal of College Student Retention: Research, Theory & Practice*, 4(1), 15-28.
- Razali, N. M., & Wah, Y. B. (2011). Power comparisons of shapiro-wilk, kolmogorov-smirnov, lilliefors and anderson-darling tests. *Journal of Statistical Modeling and Analytics*, 2(1), 21-33.

- Redmond, M. V. (2000). Cultural distance as a mediating factor between stress and intercultural communication competence. *International Journal of Intercultural Relations*, 24(1), 151-159.
- Reifman, A., & Dunkel-Schetter, C. (1990). Stress, structural social support, and well-being in university students. *Journal of American College Health*, 38(6), 271-277.
- Rienties, B., Beausaert, S., Grohnert, T., Niemantsverdriet, S., & Kommers, P. (2012). Understanding academic performance of international students: the role of ethnicity, academic and social integration. *Higher Education*, 63(6), 685-700.
- Rodin, J. (2014). Health, control, and aging. *The Psychology of Control and Aging*, 139-165.
- Rodríguez, I., Kozusznik, M. W., Peiró, J. M., & Tordera, N. (2019). Individual, co-active and collective coping and organizational stress: A longitudinal study. *European Management Journal*, 37(1), 86-98.
- Ross, S. E., Niebling, B. C., & Heckert, T. M. (1999). Sources of stress among college students. *Social Psychology*, 61(5), 841-846.
- Ruetrakul, P. (1987). *A Study of Problems and Stress of Southeast Asian Students with Accompanying Families at the University of Pittsburgh*. Paper presented at the panel on Cultural Diversity in North American Schools, 31st annual meeting of the Comparative and International Education Society, Washington.
- Rust, V. D., & Kim, S. (2012). The global competition in higher education. *World Studies in Education*, 13(1), 5-20.
- Ryan, M. E., & Twibell, R. S. (2000). Concerns, values, stress, coping, health and educational outcomes of college students who studied abroad. *International Journal of Intercultural Relations*, 24(4), 409-435.
- Saad, N. S. M., Yunus, M. M., & Embi, M. A. (2013). Research on international students in traditional host countries and Malaysia: Some potential areas in Malaysia. *Procedia-Social and Behavioral Sciences*, 90, 488-496.
- Sabrina, F. (2014). *Acculturative stress, social supports and achievement motivation among indonesian students in malaysian universities* (Master Thesis). Universiti Putra Malaysia.
- Safdar, S., Lay, C., & Struthers, W. (2003). The process of acculturation and basic goals: Testing a multidimensional individual difference acculturation model with Iranian immigrants in Canada. *Applied Psychology*, 52(4), 555-579.
- Safdar, S., Struthers, W., & van Oudenhoven, J. P. (2009). Acculturation of Iranians in the United States, the United Kingdom, and the Netherlands: A test of the

multidimensional individual difference acculturation (MIDA) model. *Journal of Cross-Cultural Psychology*, 40(3), 468-491.

- Sakurai, T., McCall-Wolf, F., & Kashima, E. (2010). Building intercultural links: The impact of a multicultural intervention programme on social ties of international students in Australia. *International Journal of Intercultural Relations*, 34(2), 176-185.
- Saleh, H., & Qasem, A. (2010). International and local students' satisfaction of healthcare services. *Journal of Business Management and Accounting*, 1(2), 49-70.
- Sam, D. L. (2000). Psychological adaptation of adolescents with immigrant backgrounds. *The Journal of Social Psychology*, 140(1), 5-25.
- Sam, D. L. (2006). Acculturation: Conceptual background and core components. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (p. 11–26). Cambridge University Press.
- Sam, D. L., & Berry, J. W. (2006). *The Cambridge handbook of acculturation psychology*. Cambridge University Press.
- Sam, D. L., & Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science*, 5(4), 472-481.
- Sandhu, D.S. & Asrabadi, B.R. (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). Lanham, MD: The Scarecrow Press
- Sandhu, D. S. (1994). An examination of the psychological needs of the international students: Implications for counselling and psychotherapy. *International Journal for the Advancement of Counselling*, 17(4), 229-239.
- Sandhu, D. S., & Asrabadi, B. R. (1994b). Development of an Acculturative Stress Scale for International Students: Preliminary findings. *Psychological Report*, 75(1 Pt 2), 435-448.
- Saravanan, C., Alias, A., & Mohamad, M. (2017). The effects of brief individual cognitive behavioural therapy for depression and homesickness among international students in Malaysia. *Journal of Affective Disorders*, 220, 108-116.
- Saravanan, C., Mohamad, M., & Alias, A. (2019). Coping strategies used by international students who recovered from homesickness and depression in Malaysia. *International journal of Intercultural Relations*, 68, 77-87.
- Sarmiento, A. V., Pérez, M. V., Bustos, C., Hidalgo, J. P., & del Solar, J. I. V. (2019). Inclusion profile of theoretical frameworks on the study of

sociocultural adaptation of international university students. *International Journal of Intercultural Relations*, 70, 19-41.

Sarwar, A. (2013). Medical Tourism in Malaysia: Prospect and Challenges. *Iranian Journal of Public Health*, 42(8).

Schartner, A. (2016). The effect of study abroad on intercultural competence: a longitudinal case study of international postgraduate students at a British university. *Journal of Multilingual and Multicultural Development*, 37(4), 402-418.

Schneider, T. R., Salovey, P., Apanovitch, A. M., Pizarro, J., McCarthy, D., Zullo, J., & Rothman, A. J. (2001). The effects of message framing and ethnic targeting on mammography use among low-income women. *Health Psychology*, 20(4), 256.

Scott, G. A. (2007). *Higher Education: Challenges in attracting international students to the US and Implications for global competitiveness: Congressional Testimony*. DIANE Publishing.

Searle, W., & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, 14(4), 449-464.

Sekaran, U. (2000). *Research Methods for Business; A skill business approach*. New York: JohnWiley and Sons.

Selye, H. (1952). The story of the adaptation syndrome. *The American Journal of the Medical Sciences*, 224(6), 711.

Senerchia, R. E. (2015). *Academic success and academic culture shock: Do international students benefit from academic acculturation intervention* (Ph.D. dissertation). Salve Regina University, Ann Arbor. Retrieved from <https://search.proquest.com/docview/1733230542?accountid=27932>

Seo, H., Harn, R.-W., Ebrahim, H., & Aldana, J. (2016). International students' social media use and social adjustment. *First Monday*, 21(11).

Severiens, S., & Wolff, R. (2008). A comparison of ethnic minority and majority students: Social and academic integration, and quality of learning. *Studies in Higher Education*, 33(3), 253-266.

Shafaei, A., Abd Razak, N., & Nejati, M. (2016). Integrating two cultures successfully: Factors influencing acculturation attitude of international postgraduate students in Malaysia. *Journal of Research in International Education*, 15(2), 137-154.

Shafaei, A., & Razak, N. A. (2016). International postgraduate students' cross-cultural adaptation in Malaysia: antecedents and outcomes. *Research in Higher Education*, 57(6), 739-767.

- Shafaei, A., & Razak, N. A. (2018). What matters most: importance-performance matrix analysis of the factors influencing international postgraduate students' psychological and sociocultural adaptations. *Quality & Quantity*, 52(1), 37-56.
- Shafreen, R. M. B., Selvaraj, C., Singh, S. K., & Pandian, S. K. (2013). Exploration of fluoroquinolone resistance in *Streptococcus pyogenes*: comparative structure analysis of wild-type and mutant DNA gyrase. *Journal of Molecular Recognition*, 26(6), 276-285.
- Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 52(3/4), 591-611.
- Shatkin, J. P. (2007). Transition to college: Separation and change for parents and students. Retrieved from <http://www.aboutourkids.org/articles>
- Shergill, A. S. (1997). *An evaluation of the social cultural competency for success training programme for the acquisition of intercultural interpersonal competency skills among health care trainees* (Doctoral dissertation). University of British Columbia.
- Sherry, M., Thomas, P., & Chui, W. H. (2010). International students: A vulnerable student population. *Higher Education*, 60(1), 33-46.
- Shields, N. (2001). Stress, active coping, and academic performance among persisting and nonpersisting college students. *Journal of Applied Biobehavioral Research*, 6(2), 65-81.
- Shiverdecker, C. G. (2018a). *A Multi-Dimensional Construct of Acculturation, Acculturative Stress, and Counselor Self-Efficacy among Foreign Born Counseling Students* (Ph.D. dissertation). University of North Carolina, Charlotte, Ann Arbor. Retrieved from <https://search.proquest.com/docview/2132443384?accountid=27932>
- Sibbald, B., & Roland, M. (1998). Understanding controlled trials. Why are randomised controlled trials important? *BMJ: British Medical Journal*, 316(7126), 201.
- Silverman, M. M., Eichler, A., & Williams, G. D. (1987). Self-reported stress: findings from the 1985 National Health Interview Survey. *Public Health Reports*, 102(1), 47.
- Simpson, L. A. (2016). *The use of MAP-Works to examine adjustment and retention in undergraduate international students* (Ph.D. dissertation). Iowa State University, Michigan.
- Singaravelu, H. D., & Pope, M. E. (2007). *A handbook for counseling international students in the United States*. American Counseling Association.

- Singh, J. K. N., & Jack, G. (2018). The benefits of overseas study for international postgraduate students in Malaysia. *Higher Education, 75*(4), 607-624.
- Singh, J. K. N., Schapper, J., & Jack, G. (2014). The importance of place for international students' choice of university A case study at a Malaysian university. *Journal of Studies in International Education, 18*(5), 463-474.
- Singh, M. K. M., Pandian, A., & Singh, S. K. G. (2013). International graduate students' experience in academic listening practices in a Malaysian public university: Challenges and overcoming measures. *The Asia-Pacific Education Researcher, 24*(1), 91-102.
- Sink, C. A., & Stroh, H. R. (2006). Practical significance: The use of effect sizes in school counseling research. *Professional School Counseling, 401-411*.
- Sirat. (2008). The impact of September 11 on international student flow into Malaysia: lessons learned. *International Journal of Asia-Pacific Studies, 4*(1).
- Sirat. (2010). Strategic planning directions of Malaysia's higher education: University autonomy in the midst of political uncertainties. *Higher Education, 59*(4), 461-473.
- Slavec, A., & Drnovsek, M. (2012). A perspective on scale development in entrepreneurship research. *Economic and Business Review for Central and South-Eastern Europe, 14*(1), 39.
- Slethaug, G., & Manjula, J. (2012). The Business of Education: Improving International Student Learning Experiences in Malaysia. *World Journal of Social Sciences, 2*(6), 179-199.
- Smart, J. F., & Smart, D. W. (1995). Acculturative Stress The Experience of the Hispanic Immigrant. *The Counseling Psychologist, 23*(1), 25-42.
- Smiljanic, I. (2017). The role of attachment, travel experiences and English proficiency in international students' acculturative stress and depressive symptoms. *Journal of International Students, 7*(2), 188-203.
- Smith, R. A., & Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations, 35*(6), 699-713.
- Smith, R. A., & Khawaja, N. G. (2014). A group psychological intervention to enhance the coping and acculturation of international students. *Advances in Mental Health, 12*(2), 110-124.
- Sodowsky, G. R., & Plake, B. S. (1992). A study of acculturation differences among international people and suggestions for sensitivity to within-group differences. *Journal of Counseling and Development, 71*(1), 53-59.

- Soehl, T. (2016). But do they speak it? The intergenerational transmission of home-country language in migrant families in France. *Journal of Ethnic and Migration Studies*, 42(9), 1513-1535.
- Sorrell, D. (2013). *The effects of two English reading comprehension intervention programmes in a Hong Kong international school context* (Doctoral dissertation). Hong Kong Institute of Education.
- Sovic, S. (2008). Coping with stress: The perspective of international students. *Art, Design & Communication in Higher Education*, 6(3), 145-158.
- Statham, P., & Tillie, J. (2016). Muslims in their European societies of settlement: a comparative agenda for empirical research on socio-cultural integration across countries and groups. *Journal of Ethnic and Migration Studies*, 42(2), 177-196.
- Steele, K. D. (2008). *Perceptions of Chinese international students in Singapore: Adjustment issues and support*. University of Toronto.
- Stonequist, E. V. (1935). The problem of the marginal man. *American Journal of Sociology*, 41(1), 1-12.
- Straub, D. W. (1989). Validating instruments in MIS research. *MIS Quarterly*, 147-169.
- Sulaiman, S. M. (2013). Emotional intelligence, depression and psychological adjustment among university students in the Sultanate of Oman. *International Journal of Psychological Studies*, 5(3), 169.
- Sumer, S. (2009). *International students' psychological and sociocultural adaptation in the United States* (PhD dissertation). Georgia State University.
- Sümer, S., Poyrazli, S., & Grahame, K. (2008). Predictors of depression and anxiety among international students. *Journal of Counseling and Development*, 86(4), 429-437.
- Sun, K. C.-Y. (2016). Professional remittances: How ageing returnees seek to contribute to the homeland. *Journal of Ethnic and Migration Studies*, 42(14), 2413-2429.
- Suresh, K., & Chandrashekhara, S. (2012). Sample size estimation and power analysis for clinical research studies. *Journal of Human Reproductive Sciences*, 5(1), 7.
- Swinford, P. L. (2002). Advancing the health of students: a rationale for college health programmes. *Journal of American College Health*, 50(6), 309-312.
- Tabachnick, B. G., & Fidell, L. (2012). *Using Multivariate Statistics: International Edition*. Pearson.

- Tadmor, C. T., Galinsky, A. D., & Maddux, W. W. (2012). Getting the most out of living abroad: Biculturalism and integrative complexity as key drivers of creative and professional success. *Journal of Personality and Social Psychology*, 103(3), 520.
- Talebloo, B., & Baki, R. B. (2013). Challenges faced by international postgraduate students during their first year of studies. *International Journal of Humanities and Social Science*, 3(13), 138-145.
- Tavakoli, S., Lumley, M. A., Hijazi, A. M., Slavin-Spenny, O. A., & Parris, G. P. (2009a). Effects of Assertiveness Training and Expressive Writing on Acculturative Stress in International Students: A Randomized Trial. *Journal of Counseling Psychology*, 56(4), 590-596.
- Taylor, A. (2015). Standardised effect size in a mixed/multilevel model. *Department of Psychology, Macquarie University*.
- Tham, S. Y., & Kam, A. J. Y. (2008). Internationalising higher education: Comparing the challenges of different higher education institutions in Malaysia. *Asia Pacific Journal of Education*, 28(4), 353-367.
- Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior*, 53-79.
- Thomas, F., & Sumathi, G. (2018). Length of stay and acculturative stress of international students: empirical study. *International Journal of Pure and Applied Mathematics*, 120(6), 10253-10264.
- Thomas, S. P., & Williams, R. L. (1991). Perceived stress, trait anger, modes of anger expression, and health status of college men and women. *Nursing Research*, 40(5), 303-307.
- Thomson, C., & Esses, V. M. (2016). Helping the transition: Mentorship to support international students in Canada. *Journal of International Students*, 6(4), 873-886.
- Thurber, C. A., & Walton, E. A. (2012). Homesickness and adjustment in university students. *Journal of American College Health*, 60(5), 415-419.
- Tian, L., McClain, S., Moore, M. M., & Lloyd, H. (2019). An Examination of Ethnic Identity, Self-Compassion, and Acculturative Stress in Asian International Students. *Journal of International Students*, 9(2), 635-660.
- Tinto, V. (2006). Research and practice of student retention: what next? *Journal of College Student Retention: Research, Theory and Practice*, 8(1), 1-19.
- Tochkov, K., Levine, L., & Sanaka, A. (2010). Variation in the prediction of cross-cultural adjustment by asian-indian students in the united states. *College Student Journal*, 44(3), 677-689.

- Tolman, S. (2017). The Effects of a Roommate-Pairing Programme on International Student Satisfaction and Academic Success. *Journal of International Students*, 7(3), 522-541.
- Trimble, J. E. (2003). Introduction: Social change and acculturation. *Acculturation: Advances in theory, measurement, and applied research*, 10, 3-13..
- Trivellas, P., & Akrivoula, G. (2010). Investigating principals' leadership profile in secondary education. *Marketing And Management Sciences* (pp. 600-604). World Scientific.
- Tsai, W., Wang, K. T., & Wei, M. (2017). Reciprocal relations between social self-efficacy and loneliness among Chinese international students. *Asian American Journal of Psychology*, 8(2), 94.
- Ugboma, C., Ogwude, I. C., Ugboma, O., & Nnadi, K. (2007). Service quality and satisfaction measurements in Nigerian ports: an exploration. *Maritime Policy and Management*, 34(4), 331-346.
- Utz, S., & Breuer, J. (2017). The relationship between use of social network sites, online social support, and well-being. *Journal of Media Psychology*. 29(3), 115
- van Breukelen, G. J., & Candel, M. J. (2012). Calculating sample sizes for cluster randomized trials: we can keep it simple and efficient! *Journal of Clinical Epidemiology*, 65(11), 1212-1218.
- Van, N. T., Said, H., Rameli, M. R., Karim, N. A., Tajuddin, N., & Chai, T. T. (2015). Role of academic advising in mitigating the challenges of ethnic minority students at Universiti Teknologi Malaysia. *International Education Studies*, 8(13), 52-59.
- Van Tilburg, M. A., Vingerhoets, J., Van Heck, G. L., & Kirschbaum, C. (1999). Homesickness, mood and self-reported health. *Stress Medicine*, 15(3), 189-196.
- Virta, E., Sam, D. L., & Westin, C. (2004). Adolescents with Turkish background in Norway and Sweden: A comparative study of their psychological adaptation. *Scandinavian Journal of Psychology*, 45(1), 15-25.
- Walton, R. L. (2002). *A comparison of perceived stress levels and coping styles of junior and senior students in nursing and social work programmes* (Doctoral dissertation). Marshall University, Huntington, Virginia.
- Waltz, C. F., Strickland, O. L., & Lenz, E. R. (2010). *Measurement in nursing and health research*. Springer.
- Wang, C.-C. D., & Mallinckrodt, B. (2006). Acculturation, attachment, and psychosocial adjustment of Chinese/Taiwanese international students. *Journal of Counseling Psychology*, 53(4), 422.

- Wang, P. (2016). *A study of drop-out Chinese international students from a Canadian pre-university English language improvement programme: Acculturation experiences and challenges.*(Master thesis). University of Windsor, Canada.
- Ward, C. (2001). The A, B, Cs of Acculturation. In D. Matsumoto (Ed.), *The handbook of culture and psychology* (p. 411–445). Oxford University Press.
- Ward, C., Bochner, S., & Furnham, A. (2005). *The Psychology of Culture Shock*: Routledge.
- Ward, C., & Kennedy, A. (1993). Psychological and Socio- cultural Adjustment during Cross- cultural Transitions: A Comparison of Secondary Students Overseas and at Home. *International Journal of Psychology*, 28(2), 129-147.
- Ward, C., & Kennedy, A. (1994). Acculturation strategies, psychological adjustment, and sociocultural competence during cross-cultural transitions. *International journal of Intercultural Relations*, 18(3), 329-343.
- Ward, C., & Kennedy, A. (1996). Crossing cultures: The relationship between psychological and sociocultural dimensions of cross-cultural adjustment. *Asian Contributions to Cross-Cultural Psychology*, 289-306.
- Ward, C., & Kennedy, A. (1999). The measurement of sociocultural adaptation. *International Journal of Intercultural Relations*, 23(4), 659-677.
- Ward, C., & Rana-Deuba, A. (1999). Acculturation and adaptation revisited. *Journal of Cross-Cultural Psychology*, 30(4), 422-442.
- Wei, M., Heppner, P. P., Mallen, M. J., Ku, T.-Y., Liao, K. Y.-H., & Wu, T.-F. (2007). Acculturative stress, perfectionism, years in the United States, and depression among Chinese international students. *Journal of Counseling Psychology*, 54(4), 385.
- Westwood, M. J., & Barker, M. (1990). Academic achievement and social adaptation among international students: A comparison groups study of the peer-pairing programme. *International Journal of Intercultural Relations*, 14(2), 251-263.
- Whitman, N. A. (1985). Student stress: Effects and solutions. *Ckuringirouse on Higher Education, ERIC Digest*, 85-1.
- Wildavsky, B. (2010). University globalization is here to stay. *Chronicle of Higher Education*, 57(1), 44-46.
- Williams, C. L., & Berry, J. W. (1991). Primary prevention of acculturative stress among refugees: application of psychological theory and practice. *American Psychologist*, 46(6), 632.

- Williams, C. T., & Johnson, L. R. (2011). Why can't we be friends?: Multicultural attitudes and friendships with international students. *International Journal of Intercultural Relations*, 35(1), 41-48.
- Wilton, L., & Constantine, M. G. (2003). Length of residence, cultural adjustment difficulties, and psychological distress symptoms in Asian and Latin American international college students. *Journal of College Counseling*, 6(2), 177-187.
- Wingfield, S. R. (2002). *Perceptions of culture shock of international students at Tennessee State University* (Unpublished doctoral dissertation). Tennessee State University.
- Winkelman, M. (1994). Cultural shock and adaptation. *Journal of Counseling and Development: JCD*, 73(2), 121.
- Wong, D. F. K., & Sun, S. (2006). A Preliminary Study of the Efficacy of Group Cognitive-behavioural. *Hong Kong Journal of Psychiatry*, 16(2).
- Wong, D. F. K., Sun, S. Y. K., Tse, J., & Wong, F. (2002). Evaluating the outcomes of a cognitive-behavioral group intervention model for persons at risk of developing mental health problems in Hong Kong: a pretest-posttest study. *Research on Social Work Practice*, 12(4), 534-545.
- Wong, Y. S. (2001). *Evaluation of sociocultural competency training in enhancing self-efficacy among immigrant and Canadian-born health sciences trainees* (Doctoral dissertation). University of British Columbia.
- Wu, H.-p., Garza, E., & Guzman, N. (2015). International student's challenge and adjustment to college. *Education Research International*, 9.
- Yan, K. (2017a). *Chinese international students' stressors and coping strategies in the United States*. Springer.
- Yan, K. (2017b). Chinese international students in the United States: Adjustment problems and coping behaviors. *Chinese international students' stressors and coping strategies in the United States* (pp. 19-32): Springer.
- Yang, B., & Clum, G. A. (1995). Measures of life stress and social support specific to an Asian student population. *Journal of Psychopathology and Behavioral Assessment*, 17(1), 51-67.
- Yang, R. P.-J., Noels, K. A., & Saumure, K. D. (2006). Multiple routes to cross-cultural adaptation for international students: Mapping the paths between self-construals, English language confidence, and adjustment. *International Journal of Intercultural Relations*, 30(4), 487-506.
- Yasin, M. A. S. M., & Dzulkifli, M. A. (2011). Differences in depression, anxiety and stress between low-and high-achieving students. *Journal of Sustainability Science and Management*, 6(1), 169-178.

- Ye, H., & Juni, M. H. (2017). Acculturative stress level among international postgraduate students of a public university in Malaysia. *International Journal of Public Health and Clinical Sciences*, 4(4), 187-198.
- Yeh, C. J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly*, 16(1), 15-28.
- Yeoh, J., Le, T., & Doan, T. (2013). The challenges of international research students studying in an Australian university context. *Conducting Research in a Changing and Challenging World* (pp. 303-309). Nova Science Publishers.
- Yeoh, J. S. W., & Terry, D. R. (2013). International research students' experiences in academic success. *Universal Journal of Educational Research*, 1(3), 275-280.
- Ying, Y.-W. (2005). Variation in acculturative stressors over time: A study of Taiwanese students in the United States. *International Journal of Intercultural Relations*, 29(1), 59-71.
- Yoon, E., & Portman, T. A. A. (2004). Critical issues of literature on counseling international students. *Journal of Multicultural Counseling and Development*, 32(1), 33.
- You, X., & You, X. (2018). American Professors' support of Chinese international students' reading and writing in subject courses. *Understanding international students from Asia in American universities* (pp. 173-193). Springer.
- Yue, Y., & Le, T. (2010). *Cultural adaptation of Asian students in Australia*. Paper presented at the AARE 2009-International Education Research Conference.
- Yusoff, Y. M., & Chelliah, S. (2010). Adjustment in international students in Malaysian public university. *International journal of innovation, Management and Technology*, 1(3), 275-278.
- Yusoff, Y. M., & Othman, A. K. (2011). An early study on perceived social support and psychological adjustment among international students: The case of a higher learning institution in Malaysia. *International Journal of Business and Society*, 12(2), 1.
- Zaleski, E. H., Levey-Thors, C., & Schiaffino, K. M. (1998). Coping mechanisms, stress, social support, and health problems in college students. *Applied Developmental Science*, 2(3), 127-137.
- Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Alavi-Majd, H., & Nikanfar, A.-R. (2015). Design and implementation content validity study: development of an instrument for measuring patient-centered communication. *Journal of Caring Sciences*, 4(2), 165.

- Zhai, L. (2002). *Studying International Students: Adjustment Issues and Social Support* (Unpublished PhD dissertation). Institutional Research San Diego Community College District.
- Zhang, J., & Goodson, P. (2011). Predictors of international students' psychosocial adjustment to life in the United States: A systematic review. *International Journal of Intercultural Relations*, 35(2), 139-162.
- Zhang, R. (2017). The stress-buffering effect of self-disclosure on Facebook: An examination of stressful life events, social support, and mental health among college students. *Computers in Human Behavior*, 75, 527-537.
- Zhang, Y. (2012). *An examination of acculturative stress, perceived social support and depression among Chinese international students* (Master dissertation). Syracuse University, New York.
- Zhang, Y., & Garcia-Murillo, M. A. (2018). Improving International Students' Cultural Skills through a School-Based Programme. *International Research and Review*, 7(2), 42-64.
- Zheng, X., & Berry, J. W. (1991). Psychological adaptation of Chinese sojourners in Canada. *International Journal of Psychology*, 26(4), 451-470.
- Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education*, 33(1), 63-75.
- Zhou, Y., Zhang, H., & Stodolska, M. (2018). Acculturative stress and leisure among Chinese international graduate students. *Leisure Sciences*, 40(6), 557-577.
- 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.
- 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.
- Zolfaghari, A., Sabran, M. S., & Zolfaghari, A. (2009). Internationalization of higher education: challenges, strategies, policies and programmes. *Online Submission*, 6(5), 1-9.
- Zung, W. W. (1965). A self-rating depression scale. *Archives of General Psychiatry*, 12(1), 63-70.