

## **Stressors and Solutions: A Preliminary Examination of Acculturative Stress among International Students**

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**ABSTRACT**

Despite ample literature regarding acculturative stress among international students, there is a gap in the literature synthesizing the sources of acculturative stress and the coping strategies that can help international students to deal with acculturative stress. In this systematic literature review, we aim to investigate the current state of acculturative stress among international students, through empirical research published in peer-reviewed journals between the years 2018 and 2022. Using a predetermined review protocol, this review analyzed 66 publications on acculturative stress for international students. These studies were mainly published in 2021 in the *Journal of International Students*. The preliminary findings provide a comprehensive range of sources for acculturative stress that can be broken down into four levels: Macro (socio-economic factors from both home and host countries or national level), Meso (institutional factors), Micro (individual, personal, or psychosocial factors). Drawn upon the sources of acculturative stress, international students are expected to reduce acculturative stress by improving their English proficiency, practicing self-compassion, adopting a positive perspective, adjusting expectations and perfectionism, attending serious leisure engagement, and seeking social support. The findings from this review will be used to help policy makers and university leaders and managers to better optimize their resources to improve international students' acculturation experience and enhance the overall higher education system.

*Keywords:* acculturative stress, coping strategies, international students

## INTRODUCTION

Millions of international students travel each year to pursue higher education in a foreign country. International students are defined as individuals who have physically crossed an international border between two countries to participate in educational activities in a destination country different from his or her country of origin (UNESCO, 2015). In 2020, there were over 6.3 million international students worldwide, compared to 5.3 million in 2018 (UIS, 2022). The US, the UK, Australia, and Canada are the most attractive study destinations, accounting for almost 40% of all international students. International students from China, India, and Vietnam accounted for 52% in 2020 worldwide, making them the top three countries of origin, followed closely by Germany and the US (UIS, 2022).

Previous literature reviews have examined various aspects of acculturation. Rudmin (2009) assessed constructs, measurements, and models of acculturation and acculturative stress, providing valuable insights into different scales used in different fields. Zhang and Goodson (2011)'s extensive review identified predictors of international students' psychosocial adjustment related to acculturative stress. Similarly, Brunsting et al. (2018)'s review covering studies from 2009 to 2018 but focused exclusively on US universities, overlooking the experiences of international students from other countries. Smith and Khawaja (2011)'s systematic review explored potential acculturative stressors faced by international students and discussed coping mechanisms and programs to aid their acculturation. However, these reviews were limited to presenting acculturation models, neglecting some important predictor variables. Given the fact that international students adapting to a new cultural, educational, and social environment encounter many potential challenges, and to date, no existing reviews have comprehensively addressed the key concepts of acculturative stress, this current review is needed and crucial for a deeper understanding of international students' successful adjustment and adaptation in foreign countries.

The paper reviewed 66 empirical studies published from 2018 to 2022, aiming at building a systematic and comprehensive overview of international students' acculturative stress experiences. It initially investigates various sources of acculturative stress from different levels, then critically reviews its effects on international students' lives, as well as various coping activities that help to buffer stress. The following questions guide the current systematic review:

1. What are the characteristics of the included studies published in peer-reviewed journals between the years 2018 and 2022?
2. What are sources of acculturative stress for international students?
3. What are the coping mechanisms that help international students deal with acculturative stress?

This is ongoing research and to date, we have completed data extraction and coding procedures. We are finalizing the data analysis and synthesis using thematic summaries (Gough, 2017) to generate key themes. Therefore, for this emerging scholar research summary specifically, we only reported data we have extracted and will update the research process as we move forward. In the following sections, we will present the answer for the first research question (RQ) and expected findings for RQs 2 and 3.

## THEORETICAL FRAMEWORK

Acculturative stress is a major component of the acculturation process. During this process, international students living in a novel cultural or multicultural environment, are exposed to many new cultural values, beliefs, and social norms. They are required to evaluate, compare, integrate, synthesize, or adjust their old cultural values and beliefs to adapt in this new environment (Berry et al., 1987). However, because cultural distance between the two environments is always different, cultural conflict arises and causes acculturative stress (Berry, 2005).

Berry (1970) first proposed the concept of acculturative stress as the result of acculturation to describe people's responses to life events that are initiated in an intercultural contact. It was then conceptualized as "one kind of stress, that in which the stressors are identified as having their source in the process of acculturation; [with] a particular set of stress behaviors that occur during acculturation,

such as lowered mental health status (especially confusion, anxiety, depression), feelings of marginality and alienation, heightened psychosomatic symptoms, and identity confusion” (Berry et al., 1987, p. 492). Therefore, acculturative stress could be a single issue or a combination of cultural problems between two or more cultural groups and their members.

Berry’s (1970, 1987) foundational work on the key concept of acculturative stress presents an overall portrayal of the entire acculturation process, shedding light on the diverse factors influencing individual experiences of acculturative stress. This comprehensive theory offers a profound comprehension of acculturation. According to Berry’s perspective, acculturation is a dual process unfolding at both group and individual levels through ongoing interactions among two or more cultural groups and their respective members. Based on key elements from Berry’s theory, researchers (Lin & Douglas, 2022; Le, 2023; Mehrete, 2019; Merlin & Sudhesh, 2023; Oyeniy et al., 2021) have examined different ways to help international students in their acculturation process.

## **METHODOLOGY**

This research employed a systematic literature review approach, which strictly follows a set of explicit, accountable, and rigorous research methods that aim to limit systematic error through identifying, evaluating, and synthesizing all relevant studies to answer a specific question or set of questions (Gough et al., 2017; Petticrew & Roberts, 2008). Following the guidelines of the Campbell Collaboration (2019) and EPPI-Centre (2009), the reviewers first developed a predetermined set of inclusion and exclusion criteria. Second, they screened the abstracts, titles, and full texts. Finally, they extracted data and synthesized the results. The details of these steps are described in the following sections.

### **Inclusion and Exclusion Criteria**

To be eligible for inclusion, each study had to

- be published in a peer-reviewed journal in English from 2018 to 2022. We selected studies conducted in English only because we were able to get access to the majority of studies in English rather than in any other languages.
- discuss sources of acculturative stress for international students, and/or the effects of acculturative stress on international students’ lives, and/or the coping strategies that help international students deal with acculturative stress
- present empirical research, either quantitative or qualitative or mixed-methods studies.

### **Search Strategy**

Reviewers used an electronic search with the keywords “acculturative stress\*” and international student\* to identify relevant studies in the most popular electronic databases in education, including ERIC (EBSCO), Education Source (EBSCO), APA PsycInfo (EBSCO), SocINDEX (EBSCO), and Web of Science. All eligible citations were exported to Rayyan QRCI for abstract and title screening. Google Sheets were employed to organize and extract data.

### **Study Selection**

We initially identified 516 publications from our electronic search, after which we removed 125 duplicates, leaving 391 studies for screening. The first round of abstract and title screening removed 185 studies, resulting in 206 studies for the next round. In the second round, we excluded 113 articles based on the inclusion/exclusion criteria. The final round of coding removed 27 more publications, resulting in 66 studies, which form the present study’s data set.

### **Data Extraction**

Following Garrard (2020), the reviewers developed a review matrix table with columns and rows in Google Sheets to record core information about each included study. Based on the research questions, data were extracted into the following criteria: (1) characteristics of included studies (authors, year of publication, journal, index, research objectives, international students’ originality, study destination,

levels of education, research methodology, data collection, data analysis, and acculturative stress scales), (2) sources of acculturative stress and its details, and (3) activities or coping strategies to deal with acculturative stress.

### **Coding Procedure**

To guarantee the reliability of the coding procedures, five studies were pilot-coded by both researchers. In the next phase, each researcher independently coded all included studies, and came together to reach a consensus when any coding conflicts needed to resolve. Finally, they cross checked each other.

### **PRELIMINARY FINDINGS**

Findings from the included studies were grouped in alignment with the research questions (RQs), regarding characteristics of included studies (RQ1), sources of AS (RQ2), and strategies to help international students to cope with acculturative stress (RQ3). For RQs 2 and 3, findings will be synthesized using thematic summaries (Gough et al., 2017).

#### **Characteristics of Included Studies**

The 66 included studies were characterized by years of publication, journals, international students' originality, study destinations, participants' levels of education, research design, and AS scales. Key characteristics of these 66 included studies are presented in Table 1.

*Years of Publication and Journals:* There was an increase in the number of publications from 20% in 2018 to 32% in 2021. Publications were mainly published in the Journal of International Students (18%), the International Journal of Intercultural Relations (6%), Frontiers in Psychology (5%), and in other journals.

*International Students' Originality:* The majority of international students in these 66 included studies came from Asia (77.3%). Among those coming from Asia, students from China ranked the first with 44% of included studies while students from India ranked the second and South Korea the third with 21% and 12% respectively. After Asia are African students with 21%, American 18% and European 15%.

*Study Destinations:* The US was the most popular study destination attracting international students (50%) followed by Australia (11%), Malaysia (9%), China (6%), and other countries.

*Participants' Levels of Education:* The participants of half of the included studies held bachelor, master, and doctorate degrees while only two publications included postdoctoral as their research participants.

*Research Design:* Studies applying quantitative methods were the overwhelming majority (Koo et al., 2021; J. Li & Liu, 2021; Shadowen et al., 2019). They represented 50 out of 66 included studies (76%) while 11 studies employed a qualitative approach (Cena et al., 2021; Su-Russell & James, 2021) and only five included studies adopted mixed methods approach (Johnson et al., 2018; Nishioka & Akol, 2019) accounting for 16% and 8% respectively.

*Acculturative Stress Scales:* Authors employed a variety of AS scales to inform their quantitative studies. Among these scales, Acculturative Stress Scale for International Students proposed by Sandhu and Asrabadi in 1994 was the most popular one, adopted by 41 out of 50 quantitative included studies in this review. Only three studies used the 21-item Sociocultural Adaptation Scale by Wilson (2013) (5%) and the rest used other acculturative stress scales (Table 1).

#### **Sources of Acculturative Stress**

Aponte and Johnson (2000) grouped factors that affect acculturative stress into three categories, consisting of macrosocial influences (discrimination, degree of tolerance for diversity, academic pressure), an individual's background (cultural distance from U.S. culture), and individual factors (age, gender, English language proficiency). Similarly, Nguyen et al. (2019) stated that the difference in acculturative stress experience might result from macro-scale (a socio-economic background in which the university is located), micro-scale (the living arrangement on campus and academic environment), and personal-scale factors. Guided by these integrated frameworks, the current study systematically reviews a comprehensive range of sources for acculturative stress and identifies three levels: Macro (socio-

economic factors from both home and host countries or national level), Meso (institutional factors), Micro (individual, personal, or psychosocial factors).

**Table 1.** *Characteristics of Included Studies*

Domains	Details		Number of Articles (Out of 66)	Percentage (%)
Years of Publication	2018		13	20
	2019		9	14
	2020		17	26
	2021		21	32
	2022		6	9
Journals	Journal of International Students		12	18
	International Journal of Intercultural Relations		4	6
	Frontiers in Psychology		3	5
	Sustainability		2	3
	Journal of American College Health		2	3
	Leisure Sciences		2	3
	Others		41	62
International Students' Originality	Asia	China	29	44
		India	14	21
		South Korea	8	12
	Africa		14	21
	Europe		10	15
	America		12	18
Study Destination	US		33	50
	Australia		7	11
	Hongkong		1	2
	China		4	6
	Malaysia		6	9
	Japan		2	3
	Others = Mixed		13	20
Participants	Levels of Education	Bachelor	38	58
		Masters	33	50
		PhD	33	50
		Post-doctoral	2	3
Research Design	Qualitative		11	16
	Quantitative		50	76
	Mixed methods		5	8
Acculturative Stress Scales	Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)		41	62
	21-item Sociocultural Adaptation Scale (SCAS-R) by Wilson (2012)		3	5

	Vancouver Index of Acculturation 20-item (VIA; Ryder et al. 2000)	2	3
	Others	20	30

### **Coping Strategies to Buffer Acculturative Stress**

Coping strategies were identified by Lazarus and Folkman (1984) as problem-focused coping and emotion-focused coping, and by Endler and Parker (1990) with the third function as avoidance-oriented coping. In general, coping strategies refer to an individual's ongoing efforts in thought and actions to manage specific demands appraised as taxing the individual's psychological well-being (Kamardeen & Sunindijo, 2018). Drawn upon the sources of acculturative stress, international students are expected to reduce acculturative stress by improving their English proficiency, practicing self-compassion and a positive perspective, and adjusting expectations and perfectionism. Selected studies also highlight the benefits of international students' serious leisure engagement in facilitating acculturative stress. Especially, social support that an individual perceives from specific supportive behaviors of sources such as home friends and family, host friends and family, international students, or schools (Cao et al., 2021), is indicated as a significant factor buffering acculturative stress among international students.

### **Implications and Conclusion**

By understanding these key aspects of acculturative stress, institutions, families, and individuals can work together to implement a comprehensive support system that fosters well-being and successful adjustment of international students. The current study also develops a conceptual model pertaining to the key concepts of acculturative stress among international students, contributing to the existing body of literature in the field of international and comparative higher education. Finally, findings from this review can inform policy makers and university leaders and managers to better optimize their resources to improve international students' acculturation experience and enhance the overall higher education. Specifically, multiple campus stakeholders including student health services, health centers, student counseling services, international student offices, help line services, academic offices (including academic advisors and mentors), need to address macro and meso scales.

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