

# Students Under Stress (Why Are Cultural Differences Stressful?)

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*Although acculturative stress (AS) studies have been conducted for five decades, we still know little about it. Moreover, we do not have a specific framework for international student population. The purpose of this paper is to explore how to use theories and research methods in different contexts and develop a framework. We systematically review articles related to this field, particularly 92 studies published until 2020. There are common variables in AS, comprising social, cultural, psychological, communicative, and demographic factors which managers and decision makers should properly understand and administer in organizations. This article also confirms a link between AS and mental and behavioral outcomes. We have elaborately developed a framework including antecedents and outcomes of AS. Suggestions have also been offered for future research.*

**Keywords:** acculturation, acculturative stress, international students.

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## Uczniowie w stresie (Dlaczego różnice kulturowe są stresujące?)

*Badania nad stresem akulturacyjnym (AS) są prowadzone od pięciu dekad, niemniej nadal wiemy niewiele na jego temat. Dodatkowo, do dziś nie udało się opracować jednolitych ram badawczych dla populacji studentów międzynarodowych. Z tego też względu celem tego artykułu jest próba opracowania takich ram badawczych oraz ustalenie, w jaki sposób optymalnie korzystać z teorii i metod badawczych w zależności od kontekstu badania. W artykule dokonaliśmy systematycznego przeglądu literatury dotyczącej AS, skupiając się na 92 badaniach opublikowanych do 2020 roku. Udało nam się ustalić, że w przypadku AS można wyróżnić powtarzające się zmienne, obejmujące czynniki społeczne, kulturowe, psychologiczne, komunikacyjne i demograficzne. Dzięki tej wiedzy menedżerowie i decydenci powinni móc lepiej zrozumieć organizacje i zarządzać nimi. Ponadto w niniejszym artykule potwierdziliśmy związek pomiędzy AS a wynikami psychicznymi i behawioralnymi oraz opracowaliśmy szczegółowo ramy badawcze obejmujące uwarunkowania i skutki AS. Dodatkowo zaproponowano również kierunki dla przyszłych badań.*

**Słowa kluczowe:** Akulturacja, stres akulturacyjny, studenci zagraniczni.

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## 1. Introduction

Everybody is constantly under a lot of stress, foreign students in particular. Today's restless lifestyles have added to the amount of stress a person faces. Among the several causes of stress are long-term stress-inducing factors, increasing changes, pressures, frustration, and conflicts. There are numerous problems arising from long-term stress-inducing factors such as psychological and physical ones for various people in different ways (Hashim & Zhiliang, 2003). International students traveling to other countries to continue education may be diagnosed with psychological illnesses due to suffering from family distress, having difficulty in communicating and adapting to new cultures (Marianne, Juan, & Bance, 2019). AS is stress affecting foreign students through the process of acculturation (Desa, Yusoooff, & Abdkadir, 2012).

Globalization has had a diverse impact on the education system, among others the growth in the number of foreign students (Wei et al., 2007). In 2017, the number of overseas students was over 5.3 million, up from 2 million in 2000 (UNESCO, 2019). By 2025, this number is anticipated to reach 8 million (QS, 2020). Therefore, paying attention to international student studies is of paramount importance. Foreign students can play a prominent role in facilitating cross-national exchange and cooperation between international and domestic cultures (Wei et al., 2007). Moreover, overcoming stress might be mutually beneficial – both host country universities and visiting students could benefit from stress reduction. Overseas students bring a set of assets to the host country, and in turn gain access to higher education. However, they meet some challenges while dealing with the new culture that can lead to stress (Smith & Khawaja, 2011). The stress they experience reduces their chances of contributing to the quality of the host university student life.

There have been two literature review articles (in English) focusing on international students' AS up to this point. The first review, conducted by Smith and Khawaja (2011), investigated acculturation models regarding overseas students. The second article, by Tiwari, Singh and Hasan (2017), also reviewed seventeen empirical studies to explore and examine the relationship between AS and coping strate-

gies of foreign students in different countries. However, these reviews have similar drawbacks inasmuch as they only address the gap between research literature and applied theories. Thus, they are considered as limited reviews. In the present paper, we look for a more comprehensive investigation along with closer research of the theories used recently. Given these limitations, we also try to provide a general framework of the variables related to international students' AS, and then use this framework of cross-cultural stressing factors in the hope that we can find and identify more promising research projects. For this purpose, we utilize Rosado-Serrano, Dikova, and Pauls review structure (2018) and employ the 4 Ws (What, Where, Why, and How). This study targets and investigates two reviews that have been conducted about the AS of overseas student. Not only is our paper highly relevant to further research planning but also critically important for future student exchange managers and academics of host universities. It provides the parallels existing in past studies, the theories applied, the countries in which the research was conducted, the methodology used, and the results obtained. We present two sections. The first section is about the methods we employed to select articles. Then, we provide a comprehensive overview of AS in international student research.

## 2. Review Design & Structure

### 2.1. Review Design

According to past reviews, we first search online databases such as Google Scholar and Web of Science to find all AS research on international students. Our criteria to select the articles consist of three steps. First, we chose peer-reviewed articles written in the English language and journals with an impact factor. Second, we limited our search to select articles which had been published until 2020. Third, the keywords were chosen including "international students", "overseas students", "foreign students", "studying abroad", "AS", and we combined terms such as AS and international students. On the whole, we included 92 articles published in 58 journals. Nearly 35% of the articles were published in Journal of International Students, Journal of Counseling Psychology, Journal

of Multicultural Counseling and Development, Cultural Diversity and Ethnic Minority Psychology, Int J Adv Counselling, Psychological Reports and Journal of College Counseling. Psychology journals published about 18% of the studies. Regardless of the fact that there is the dominance of psychology journals, they were also published in culture, communication, and management journals. A systematic review method is an appropriate way to critically evaluate the literature on AS of overseas students as it is applied in Zhang and Goodson's review. To this end, we used the 4 Ws (What, Where, Why, and How) to have a proper structure for the study. However, because we discuss the importance of the subject in the introduction and offer some suggestions in the last part of article, we omit Why and How questions.

## **2.2. Review Structure**

### **2.2.1. What do we know about AS of international students?**

In section 3 named "An Overview", we show what researchers have done.

### **2.2.2. Countries in prior research (where research has been done)**

To answer this question, we assess various countries in which research has been conducted.

## **3. An Overview**

A common concept of advanced theories of acculturation is that when a person enters a new cultural environment, they experience a kind of stress which makes them choose from many possible alternatives such as adapting to the new culture, integrating culturally, enduring the stress of marginalization, or even separating from such an environment (Rudmin, 2009). In a current acculturation model, Berry (1997) termed intercultural adjustment as a function of group attitudes regarding heritage culture along with the desire and ability to take on the core values of the host community. On the basis of these two factors, groups can assimilate, merge, separate or be marginalized (Mikal, Yang, & Lewis, 2015; Smith & Khawaja, 2011). Berry (2006) explained the factors affecting AS and adaptation (Smith & Khawaja, 2011). Bourhis et al. (1997) focused on accultura-

tion expectations in their model (interactive acculturation model (IAM)) and on how individuals from other countries should acculturate themselves to the society's expectation (Angel et al., 2015; Sam, 2015; Smith & Khawaja, 2011). Ward et al. (2001) regarded three theoretical approaches to study acculturation: culture learning perspective, stress, coping and adjustment process and social identity and inter group relations (Furnham, 2019; Smith & Khawaja, 2011). Likewise, Arends-Toth and van de Vijver (2006) and Safdar et al. (2003), in a comprehensive model (multidimensional individual difference acculturation (MIDA), integrated three theoretical approaches to the investigation of acculturation (Smith & Khawaja, 2011). Finally, Ward and Geeraert (2016) advanced the acculturation theory, specifically in its ecological context, by regarding the family, institutional and societal context. Only the MIDA model (not moderating factors) and Berry's model (some predictors) in the literature on AS in overseas student have thus far been particularly tested.

## **4. Where Research Has Been Done**

### **4.1. Countries**

Almost 68 percent of the research on international students' AS has been done in the United States. Hence, the share of the other countries is only 32 percent of the total research. This shows a gap between countries' studies. The first to third ranks of AS research on overseas students are the United States (62), China (7), the United Kingdom and Malaysia (3), respectively. Due to the role of the English language in global communication, this type of inquiry has been more common in English-speaking countries. Despite the fact that there is a large number of foreign students in Germany, Italy and Canada, few studies have been conducted in these countries. Besides, no research has been carried out on AS of international students in Switzerland, France and Russia.

## **5. Discussion**

This paper, including recent work, presents a new categorization of antecedents and outcomes and the links with AS to develop the concept of AS.

### 5.1. Antecedent Factors and Their Impact on AS

A total of 44 articles discovered the antecedents of AS in international students. The five areas of AS include social, cultural, psychological, demographic, and communicative factors (Table 1). The social category covers factors considered in the process of socialization, including social support, social connectedness, family perceptions of acting white, intragroup marginalization, leisure participation, sociocultural adaptation, and ethnic identity

marginalization and leisure participation. Various studies considered social support as an important element in acculturation and socialization with the culture of the host country (e.g. Bai, 2016; Poyrazli, Kavanaugh, Baker, & At-Timimi, 2004). Bai (2016) stated that one of the challenges for international students is to build a relationship with students from the host country. If social networks are developed between students, they can socialize with other students more easily, and

Table 1. Thematic categorizations of antecedent factors

Categories	Antecedents	References
Social	Social support Social connectedness Family perceptions of acting white Intragroup marginalization Leisure participation Sociocultural adaptation Ethnic identity	(Yeh & Inose, 2003), (Ra, 2016), (Lee, Koeske, & Sales, 2004), (Sullivan, 2015), (Li & Peng, 2019), (Ra & Trusty, 2017), (Ye, 2006), (Poyrazli et al., 2004), (Bai, 2016) (Nguyen et al., 2019) (Thompson et al., 2010), (Castillo et al., 2008), (Cano, Castillo, Castro, Dios, & Roncancio, 2014) (Zhou et al., 2018) (Burke & Mahmood, 2018) (Tian, McClain, & Moore, 2019)
Cultural	Cultural incongruity Cultural distance Cultural Values Sociocultural adaptation Ethnic identity	(Cano et al., 2014) (Pérez-Rojas & Gelso, 2018) (Kim & Omizo, 2014) (Burke & Mahmood, 2018) (Tian et al., 2019)
Psychological	Perfectionism Self-esteem Depression Interpersonal problems Coping strategies Grit and psychological well-being Personal growth initiative Personality Willingness to communicate Assertiveness training Cultural intelligence Attachment Religion/spirituality	(Huang & Mussap, 2018), (Wei et al., 2007) (Claudat, White, & Warren, 2016) (Nguyen et al., 2019) (Qi, Wang, Pincus, & Wu, 2018) (Ra & Trusty, 2015) (Marianne et al., 2019) (Yakunina, Weigold, & Weigold, 2013), (Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013) (Poyrazli, Thukral, & Duru, 2010), (Erdinc, 2007), (Kim, 2011) (Gallagher, 2013) (Tavakoli, Lumley, Hijazi, Slavin-Spenny, & Parris, 2009) (Gebregergis, Huang, & Hong, 2019) (Smiljanic, 2017), (Han et al., 2017) (Philip, Colburn, Underwood, & Bayne, 2019)
Demographic	Length of stay Gender Travel experiences Age	(Belen, Smith, & Keele, 2010), (Nweke, 2017) (Hashim & Zhiliang, 2003), (Lee & Padilla, 2014), (Amponsah, 2010) (Smiljanic, 2017), (Gebregergis et al., 2019) (Nweke, 2017), (Gebregergis et al., 2019), (Gebregergis, 2018)
Communicative	English proficiency Use of online ethnic social groups Comparative media use Mobile instant messenger use Social networking sites	(Smiljanic, 2017), (Yeh & Inose, 2003), (Erdinc, 2007) (Ye, 2006) (Kline & Liu, 2005) (Park & Noh, 2018) (Park, Song, & Min, 2014)

Source: Authors' analysis from the literature.

as a result experience less AS. The work of Nguyen, Le and Meirmanov (2019) stressed the importance of supportive programs regarding the role of acculturation and social connectedness. They find out a negative relationship between social connectedness and AS. When a black person does not act according to the expectations of the black community, other members believe that s/he is acting in conformity the principles of whites, and is trying to hide being black. Most black people experience cultural stress starting their studies at universities with white culture because these institutions are surrounded by white cultural values (Thompson, Lightfoot, Castillo, & Hurst, 2010). Intragroup marginalization is considered as an effective factor on AS (Castillo, Cano, Chen, Blucker, & Olds, 2008; Thompson et al., 2010). Furthermore, leisure participation, such as participating in holiday celebrations organized by the student association, can help students socialize and reduce AS (Zhou, Zhang, & Stodolska, 2018).

The role of cultural antecedents in the field of AS is crucial. Factors such as cultural incongruity, distance and values, which were supported in the literature, are interconnected concepts that can cause stress. In the acculturation literature, socio-cultural adaptation is a behavioral aspect of cultural competency (Burke & Mahmood, 2018). It is about how one can socioculturally, behaviorally and linguistically adapt to the new culture (Wu & Mak, 2012). It also examines both an individual's social skills and cultural learning that can predict AS (Burke & Mahmood, 2018).

It is believed that psychological features like psychological wellbeing, self-esteem, depression influence the acculturation process (Belen et al., 2010). Qi et al. (2018) stated that interpersonal problems can indirectly cause psychological complications by having negative effects on the quality of relationships. They found that higher levels of interpersonal distress might lead to higher levels of AS. A study by Gallagher (2013) has been conducted on the relationship between willingness to communicate in the second language and cross-cultural adaptation and has considered this willingness as a behavioral tendency under the influence of person-environment interaction. He found that willingness to communicate in the second language is related to

AS. Cultural intelligence as a psychological resource affects the outputs of the cultural process (Gebregergis et al., 2019). Ethnic identity as a sociocultural factor (Walker, Joiner, Wingate, & Obasi, 2008) is a significant part of the acculturation process where the cultural identities of minorities determine their integration or separation from the culture of the host country (Tian et al., 2019). Assertiveness training is about training individuals to express their expectations, interests and thoughts readily without rejecting or ignoring the rights of others. This type of training can be advantageous to international students to participate in a multicultural community (Tavakoli et al., 2009). Moreover, religion/spirituality and such other coping strategies have been used in acculturation studies in order to deal with AS (Philip et al., 2019; Ra & Trusty, 2015). Maladaptive perfectionism can lead to negative psychological outcomes (Hamamura & Laird, 2014). It affects depression indirectly by increasing the AS level (mediating model), and to a lower extent by interacting positively with AS (direct effect) (Huang & Mussap, 2018). Personal growth initiative is considered in the field of psychology and can be applied to people living in multicultural societies. It is concluded that personal growth initiative can moderate the relationship between AS and adjustment (Yakunina, Weigold, & Weigold, 2013). A number of studies have considered personality traits, especially openness to experience, and neuroticism in relation to AS (Erdinc, 2007; Kim, 2011; Poyrazli et al., 2010). Individuals with openness to experience are at risk of AS. Also, neuroticism can increase the AS level (Poyrazli et al., 2010). Han et al. (2017) investigated attachment as an impactful tool against AS and as an antecedent of college adjustment. They found out that both parental and professor attachment moderate the AS level. In addition, one study (Smiljanic, 2017) considered two dimensions of attachment (attachment anxiety and avoidance) in association with AS. She concluded that only attachment anxiety had a positive correlation with AS.

In the case of demographic factors and their relationship with AS, Belen et al. (2010) mentioned people experience more stress early in their stay in the host country. Furthermore, while it is concluded that men are stressed more than women in the mul-

ticultural context, one study (Amponsah, 2010) found the opposite result. Prior travel experience and age can be effective factors on AS (Gebregergis et al., 2019).

English proficiency as a common language in international courses is considered as an influential factor for AS (Yeh & Inose, 2003). The use of communication tools to support students against AS has been considered in various studies (Kline & Liu, 2005; Park & Noh, 2018; Park et al., 2014; Ye, 2006).

## 5.2. Links Between AS and Outcomes

In this study, 15 articles identified the outcomes of AS that are more related to the behavioral area (Table 2). 5 articles deal with behavioral outcomes and 10 arti-

cles with mental ones. The behavioral category involves the use of the internet, help-seeking behavior, alcohol use, condom-use intention. Ye (2005) found that facing AS, students have a behavioral tendency to use the internet to deal with perceived fear and discrimination. Nguyen, Serik, Vuong and Ho (2019) concluded that both international and domestic students, after feeling AS, have a tendency to seek help, which usually happens informally. Although students' alcohol consumption was low, the relationship between AS and the amount students drank was examined in a study by Koyama and Belli (2011). A study (Yang et al., 2018) of risk behaviors during sex due to AS found that people showed little interest in using a condom.

Table 2. Thematic categorizations of AS outcomes

Categories	Outcomes	References
Behavioral	Use of the internet	(Ye, 2005)
	Help-seeking behavior	(Addatu-Cambri, 2019), (Nguyen et al., 2019)
	Alcohol use	(Koyama & Belli, 2011)
	Condom-use intention	(Yang et al., 2018)
Mental	Depression	(Gebregergis, 2018), (Wei et al., 2007), (Rice, Choi, Zhang, Morero, & Anderson, 2012), (Hamamura & Laird, 2014), (Liu et al., 2016)
	Psychological distress	(Wei, Tsai, Chao, Lin, & Du, 2012), (Lee et al., 2004) (Hwang & Ting, 2008), (Yang et al., 2018)
	Mental health	(Park et al., 2014)
	Psychological well-being	
	Life satisfaction	(Suh et al., 2016)

Source: Authors' analysis from the literature.

The mental category includes depression, psychological distress, mental health, psychological well-being, life satisfaction. Based on five studies (Gebregergis, 2018; Hamamura & Laird, 2014; Liu et al., 2016; Rice et al., 2012; Wei et al., 2007) which have been conducted on this psychological issue, the core outcome of AS is depression. The concepts of depression, psychological distress, mental health, and psychological well-being are almost the same, and differ only in the number of factors measured. In this review, mental health includes both depression and psychological anxiety. Additionally, mental health inventory has been used to measure psychological well-being. The association of AS and

all these outcomes has been verified in the mentioned papers. What remains is life satisfaction. Suh et al. (2016), in a longitudinal study, found that AS includes general stress and family stress is associated with life satisfaction. Initial general stress is connected with early and late satisfaction of life, while initial family stress is only linked to the early life satisfaction. Depression and use of the internet have been studied both as an antecedent of AS and as an outcome.

## 6. Conclusion and Suggestions for Future Research

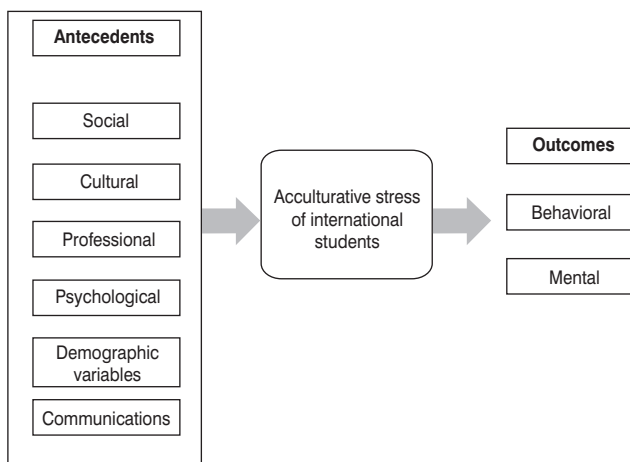
According to previous reviews (Smith & Khawaja, 2011; Tiwari et al., 2017), our

goal was to investigate AS of overseas students, and present the agenda for future research. Our research cites a complete inventory of knowledge in this field, and provides ways to understand the stress of international students properly. We showed that existing theories are not sufficient to demonstrate the process of AS in foreign students. As was mentioned, past theories concerning acculturation stress need to be revised (Arends-Tóth & Van de Vijver, 2006). Some theories, old and new, such as social cognition/identification theory, theory of separation and individuation, social learning theory and self-efficacy theory, psychology of the self and self-identity theories, goal orientation theories can be beneficial. Moreover, most research in this area applied quantitative research. We suggest using qualitative research and mixed method methodology for future research. In addition, an inquiry of interdisciplinary and multilevel studies between psychology, management and anthropology such as the relationship between societal and institutional variables and individual variables that influence the acculturation proc-

ess is needed. To address these issues and provide suggestions on the acculturation process of foreign students, we provide a comprehensive framework (Figure 1).

Counselors and decision makers can use this model as guidelines to manage and measure the AS of international students. Special attention should be paid to social and communicative factors. Social support with different resources can play an effective role. Also, in recent years, there has been growing attention to the use of virtual reality technologies to increase an individual's psychological resilience, especially focusing on how to cope with stress (Palavicini, Argenton, & Mantovani, 2016). Virtual reality technologies can play a fundamental role in students' mentality before they enter the host country. In this regard, we recommend that educational institutions and managers utilize artificial intelligence technologies, virtual reality (VR) and augmented reality (AR), in particular to familiarize students with the university environment before they arrive in the host country.

Figure 1. Model of international students' AS research



Source: Prepared by the authors.

Universities could provide a virtual trip to the desired university to make prospective students more familiar with the environment, dormitories and some welfare services. Furthermore, interactive virtual reality software applications could build a platform for students to connect with pro-

fessors in advance, and learn more about their teaching style and classroom climate and culture. Students can interact with other students as well. Needless to say that the merits of these series of virtual reality applications can be greatly beneficial for both universities and all other international

organizations facing cross-cultural stress and cultural shock.

This model has some suggestions for academics as well. In order to examine the model, it must be considered as a holistic view. It should not observe factors in isolation. Examining how different factors are related and interact can develop the area of AS. For example, are psychological factors related to each other? How will their impact on AS change? What is the role of new technologies for antecedents and outputs? This is useful if all the antecedents and outputs are examined in one study.

One of the limitations of studies is the failure to examine professional antecedents. Many more studies are needed to study academic and organizational factors. Moreover, the present paper specified that there were few inquiries regarding moderating or mediating variables in AS of foreign student studies. In addition, determining further AS outcomes requires more studies. For example, what are its effects on the group level? This review has also some limitations that could be regarded in future research. We considered the studies that focused on international student interactions. There were inquiries that examined the interaction between host students and a specific group of international students or a group of students in some countries.

To sum up, we summarized the knowledge in this area and found that inquiries on the acculturation process of overseas students and suggestions for the following functioning are needed. This provides promising research opportunities. We hope that our implications will pave the way for perceptive future research in the AS of international students.

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