



Acculturative Stress and Socio-Demographic Influences: A Comparative Study of Asian and African International Students in China

Flemmings Fishani Ngwira¹ , Hanna Yeshinegus Adam-Seged² ,
Wellman Kondowe³

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Corresponding Author:

Flemmings Fishani Ngwira
Department of Language and Communication Studies, the Malawi University of Business and Applied Sciences, Malawi. Email: fngwira@mubas.ac.mw

Abstract: International students often face challenges in adapting to new living and learning environments. This study investigated the levels of acculturative stress and its contributing factors among Asian and African international students in five internationally recognized universities in Wuhan, Hubei. A total of 243 students participated in the study, completing a questionnaire based on an adapted version of the Acculturative Stress Scale for International Students (ASSIS). Data were analyzed using IBM SPSS Statistics version 22. The results indicated that most international students did not report significant acculturative stress, but differences were observed between African and Asian students. African students experienced higher stress levels related to perceived discrimination, whereas Asian students reported fear and guilt as primary stressors. Across all participants, homesickness, perceived discrimination, and culture shock emerged as the most common sources of stress, while fear was the least reported stressor. Socio-demographic variables significantly influenced stress levels. Students who had longer stays, were older, possessed higher education levels, and were married reported lower levels of acculturative stress. These findings highlight the need for targeted interventions to support international students, including culturally responsive programs, anti-discrimination initiatives, and peer-mentoring systems. Such efforts would foster greater inclusion, social integration, and well-being among international students studying in China.

Keywords: Acculturative Stress, International Students, Asian and African Students, Cultural Adjustment, Socio-Demographic Factors, Central China, Africa

1. Introduction

Pursuing tertiary education often requires students to relocate to foreign countries, especially those with advanced industrial and educational systems. Over the past decade, China has emerged as a highly attractive destination for international students due to its rapid economic and social development. Statistics indicate that 489,200 international students were enrolled in China in 2017 (Ministry of Education, 2018), with this number increasing to 492,185 in 2018 (Cai, 2020). As a result, China has solidified its position as Asia's most popular study destination (Crace, 2018). The Chinese government has actively promoted international education, setting a target in 2010 to host over 500,000 international students by 2020 (Ngwira et al., 2015) and later focusing on improving the quality of international education by 2019 (Cai, 2020). However, the COVID-19 pandemic significantly disrupted this growth trajectory, leading to a 23% decline in international enrollment by 2021 compared to 2018 (van Gardingen, 2024). Despite these challenges, Africa and Asia continued to dominate the international student demographic, contributing 75.52% of enrollments, with African enrollments growing nearly three times faster than those from Asia ("China Emerging," 2021). Encouragingly, international student numbers began recovering in 2022 (van Gardingen, 2024).

While international students bring cultural diversity and enrich host institutions, they often face significant challenges adapting to their new environments. These challenges are particularly pronounced for international students in China and other foreign countries, where they must navigate cultural and academic adjustments. Common difficulties include academic pressures, language barriers, social integration issues, discrimination, and unfamiliarity with the host culture (Ngwira & Kondowe, 2024; Ngwira et al., 2015). These adjustment difficulties often culminate in what Berry (1997) defines as acculturative stress—a form of stress resulting from the psychological and social demands of adapting to a new cultural environment. Sandhu and Asrabadi (1994) identified key contributors to acculturative stress, such as perceived discrimination, homesickness, fear, guilt, perceived hatred, and culture shock. For international students, these stressors can significantly impact their academic performance, mental well-being, and social integration.

¹ Department of Language and Communication Studies, Malawi University of Business and Applied Sciences, Malawi.

² International Joint Laboratory of Behavior and Cognitive Science, Zhengzhou Normal University, Zhengzhou, China.

³ Department of Language, Cultural and Creative Studies, Mzuzu University, Mzuzu, Malawi Applied Sciences, Malawi.

Although several studies have examined acculturative stress among international students in China, most have focused on its sources (Akhtar & Kröner-Herwig, 2015; Ngwira et al., 2015; Ngwira & Kondowe, 2024) or its overall levels (Gebregergis, 2018; Ngwira & Kondowe, 2024). However, limited attention has been paid to comparative analyses between distinct groups of international students, such as those from Asia and Africa. Given the cultural and educational diversity of these regions, students from Asia and Africa may experience acculturative stress differently, influenced by varying degrees of cultural distance and educational backgrounds. This gap in the literature underscores the need for a deeper understanding of the factors contributing to stress among these groups.

This study aims to examine the levels of acculturative stress among Asian and African international students studying at universities in Wuhan, Hubei. Additionally, it seeks to identify the factors influencing their acculturative stress levels and to explore whether demographic variables such as age, education level, and length of stay play a significant role. By addressing these gaps, the study seeks to provide actionable insights that will enable universities to develop culturally responsive support programs tailored to the unique needs of Asian and African students. Moreover, the findings will inform institutional policies to foster more inclusive environments, ultimately enhancing students' academic success, mental health, and social integration.

2. Literature Review and Hypotheses Development

Acculturative stress refers to the psychological and physical discomfort experienced when adapting to a new cultural environment that proves to be challenging (Lee et al., 2004). International students, compared to other sojourners, are particularly vulnerable to acculturative stress due to their limited personal resources, reluctance to seek psychological help due to stigma, and insufficient social support networks upon entering the host country (Desa et al., 2012). Berry (2015) conceptualizes acculturation as a dual process of cultural and psychological transformation that occurs when two or more cultural groups and their members interact. This interaction prompts changes both at the individual level—affecting values, attitudes, and beliefs—and at the group level, influencing social and cultural systems (Berry, 2003).

According to Celenk and van de Vijver (2014), the acculturation process consists of three key components. The first aspect involves antecedent factors, which include individual- and group-level conditions like perceived discrimination, expectations, and personality traits. The second aspect covers acculturation orientations, referring to strategies, styles, and attitudes toward adapting to a new culture. This intercultural adaptation, according to Tang and Zhang (2023), refers to how sojourners deal with and adjust to an entirely new cultural environment. Individuals adjust to different cultures in three levels: the individual level which focuses on psychological and cognitive changes, the interpersonal level which focuses on the dynamic experience that involves a cycle of stress, adaptation and growth, and the sociocultural level which focuses on the learning experiences to grow and transform themselves. The third aspect encompasses acculturation outcomes, which are the results of the process and can manifest as psychological outcomes (internal adjustment) or behavioral adaptation (external adjustment). In this study, acculturative stress is considered part of the acculturation outcomes (psychological adjustment) and is thought to be influenced by conditions like perceived discrimination and hate.

Several factors are known to influence acculturative stress, with **cultural distance** being a key determinant. Cultural distance refers to the degree of difference between an individual's home and host cultures, with larger cultural gaps often resulting in greater acculturative stress (Berry et al., 1987). This occurs because individuals from culturally distant societies must navigate unfamiliar norms, values, and behaviors, which can lead to feelings of alienation, confusion, and identity conflict. For example, Galchenko and van de Vijver (2007) found that exchange students in Russia who perceived a greater cultural distance experienced more significant adjustment difficulties. These findings highlight the importance of cultural proximity in mitigating the psychological challenges associated with acculturation. Consequently, the following hypothesis was developed:

H1: *Asian international students portray lower levels of acculturative stress than African international students.*

Education level and length of stay have also been identified as significant predictors of acculturative stress among international students. Extended exposure to the host culture allows individuals to develop coping mechanisms, establish social support networks, and gain a deeper understanding of local norms and practices, thereby reducing stress (Berry et al., 2022). Longer stays also provide greater opportunities for students to develop effective coping mechanisms, social support networks, and resilience against stressors. For instance, they can better navigate challenges such as linguistic barriers, unfamiliar social norms, and academic pressures, which are initially significant sources of acculturative stress (Smith & Khawaja, 2011). Additionally, students who have spent more time in a host country experience higher levels of cultural competence and adaptability. This is partly due to repeated exposure to new cultural contexts, which fosters a deeper understanding and acceptance of local customs and practices (Ward & Geeraert, 2016). Thus, the following hypothesis was developed:

H2: *As the length of international students' stay in China increases, their level of acculturative stress decreases*

Education level has also been found to be an important determinant of acculturative stress among international students. A higher level of education is associated with better problem-solving skills, access to resources, and

increased confidence, all of which can enhance one's ability to navigate cultural differences (Yu & Wang, 2011). These factors play a critical role in easing the process of cultural adaptation, leading to reduced acculturative stress. Studies have also shown that graduate students, compared to undergraduates, experience lower levels of acculturative stress, largely due to their more extensive academic and life experiences, which equip them with better strategies to handle challenges associated with cultural transitions (Ngwira et al., 2020; Yu & Wang, 2011). Thus, higher education not only imparts the skills necessary for cultural adjustment but also fosters an environment that holistically supports acculturation. Based on this review of the literature, the following hypothesis was advanced:

H3: *The higher the education level international students pursue, the lower the acculturative stress they experience.*

3. Methodology

3.1. Study Setting And Participants

This study adopted a descriptive cross-sectional design utilizing quantitative methods for data collection and analysis. The research was conducted in Wuhan, the provincial capital of Hubei Province, located in Central China. Participants included Asian and African international students enrolled in five internationally recognized universities: Central China Normal University, Wuhan University, Huazhong University of Science and Technology, Tongji Medical College, and China University of Geosciences. These universities were randomly selected, and a stratified random sampling method was used to recruit students of Asian and African origin.

The sample comprised students from various countries, with the majority of Asian participants hailing from Indonesia, Japan, South Korea, and Thailand, while most African participants originated from Ghana, Nigeria, Kenya, and Malawi. Only Asian and African international students currently enrolled in the participating universities were eligible for inclusion in the study. Other than the geographical focus on Asia and Africa, there were no additional exclusion criteria.

3.2. Data Collection Tool

To measure acculturative stress among the participants, the study employed an adapted version of the Acculturative Stress Scale for International Students (ASSIS) developed by Sandhu and Asrabadi (1994). The original ASSIS is a 36-item instrument rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree) with a high Cronbach's alpha coefficient of 0.95, indicating strong reliability. The scale encompasses seven subscales: perceived discrimination (eight items), homesickness (four items), perceived hate (five items), fear (four items), culture shock (three items), guilt (two items), and miscellaneous (10 items).

For this study, the ASSIS was modified to a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) to simplify the response process. Additionally, the questionnaire was translated into Chinese and French to ensure accessibility for participants who were not proficient in English. To maintain the integrity of the instrument, back translation was conducted by independent translators to confirm that the meanings of the items were preserved.

3.3. Procedure And Data Analysis

The survey was conducted during the months of November and December 2023, coinciding with the end of the first academic semester. Questionnaires were distributed across the five participating universities with the assistance of five graduate students, each serving as a research assistant for their respective university. Research approval was obtained from the Central China Normal University's College of International Cultural Exchange (CICE) and the relevant administrative authorities at each participating institution.

Participation in the survey was voluntary, and verbal consent was obtained from all participants before the questionnaires were administered. Participants were given the option to schedule a convenient time for the research assistants to collect their completed surveys. The surveys were completed in students' dormitories to ensure comfort and convenience. Anonymity and confidentiality were strictly maintained throughout the study, with only the researcher having access to participants' demographic data.

Data from the completed surveys were analyzed using IBM SPSS Statistics version 22. The analysis included descriptive statistics to summarize the demographic characteristics of the participants, as well as inferential statistical methods to explore the relationships between socio-demographic variables and acculturative stress.

4. Results

A sample of 243 international students from Africa and Asia studying at five universities in the city of Wuhan, Central China, was recruited for the study. Table 1 summarizes participants' socio-demographic characteristics.

Table 1: Socio-demographic characteristics of the study participants

Participants groups	Sub-groups	Frequency	Percentage
Gender	Male	138	56.8
	Female	105	43.2
Marital status	Single	187	76.9

Source of finance	Married	56	33.1
	Scholarship	198	81.5
Continent of origin	Self	45	18.5
	Africa	142	58.3
Length of stay	Asia	101	41.7
	≤ one year	81	33.3
Age-range	> one year	162	66.7
	18 - 25 years	84	34.6
	26 - 35 years	137	56.4
Education	36 - 45 years	22	09.0
	Bachelors	67	27.6
	Masters	116	47.7
	Doctorate	60	24.7

Source: Calculated by the author

4.1. Acculturative Stress For International Students

This study achieved a Cronbach coefficient alpha of 0.91 on the overall Acculturative Stress Scale for International Students (ASSIS). The Cronbach coefficient alphas within the seven sub-scales of ASSIS ranged from 0.69 to 0.87. Table 2 presents descriptive statistics and Pearson correlations analysis for all sub-scales of acculturative stress including the overall score of the entire ASSIS scale. Correlation results show that there were significant positive relationships within all the tested variables. Strong correlations can be observed between ASSIS and almost all the sub-scales. Other strong correlations can be noticed between miscellaneous sub-scale and other scales. All other correlations were either strong or moderate. There were no weak correlations. The strong correlation means that the variables have strong relationships, which suggests that they have shared variability between them.

Table 2: Descriptive statistics and Pearson correlations among study variables (n = 243)

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. P. discrimination	2.37	0.89	1							
2. Homesickness	2.58	0.95	0.49**	1						
3. Perceived hate	2.17	0.82	0.72**	0.45**	1					
4. Fear	1.93	0.86	0.62**	0.57**	0.70**	1				
5. Cultural shock	2.36	0.88	0.62**	0.57**	0.58**	0.57**	1			
6. Guilt	2.10	0.97	0.56**	0.58**	0.56**	0.64**	0.51**	1		
7. Miscellaneous	2.34	0.78	0.81**	0.61**	0.75**	0.74**	0.69**	0.63**	1	
8. ASSIS	2.29	0.73	0.88**	0.70**	0.83**	0.82**	0.77**	0.72**	0.95**	1

** = $p < .001$ **Source:** Calculated by the author

To assess international students' perceived overall acculturative stress and its specific sources, a one-sample t -test was conducted on the overall scale and individual sub-scales. Mean scores significantly below 3.0 (which indicate 'not sure') were interpreted as disagreement with the item statement, suggesting an absence of stress (Chavajay & Skowronek, 2008). As shown in Table 3, the results indicated that students generally experienced low levels of stress. However, when ranking specific sources of acculturative stress based on mean scores, homesickness, perceived discrimination, and culture shock emerged as the most commonly reported stressors, while fear was the least reported (see Table 3).

Table 3: One sample t -test results for international students' acculturative stress (test value = 3)

Variable (ranked)	Mean	SD	$t(242)$	p - value
1. Homesickness	2.58	0.95	-6.82**	< 0.001
2. Perceived discrimination	2.37	0.89	-11.03**	< 0.001
3. Cultural shock	2.36	0.88	-11.28**	< 0.001
4. Miscellaneous	2.34	0.78	-13.22**	< 0.001
5. Perceived hate	2.17	0.82	-15.90**	< 0.001
6. Guilt	2.10	0.97	-14.41**	< 0.001
7. Fear	1.93	0.86	-19.22**	< 0.001
ASSIS	2.29	0.73	-15.20**	< 0.001

** = $p < .001$. **Source:** Calculated by the author

Since neither the overall scale nor the specific sub-scales indicated mean scores suggestive of significant acculturative stress, individual items were analyzed to identify any potential stressors among the students. Out of

36 items, only one (item 36) showed evidence of perceived acculturative stress. Item 36, 'I miss the people and my country of origin' ($M = 3.18$, $SD = 1.40$), from the 'homesickness' sub-scale, reflects feelings of loneliness likely associated with students missing their loved ones and the familiarity of their home country. Additionally, an analysis of individual students' scores on the overall scale revealed that 27 students (11.1%) had mean scores above 3.0, indicating that only 27 out of 243 students experienced acculturative stress at a concerning level.

4.2. Differences Concerning The Socio-Demographic Characteristics of The Participants

One of the major aims of this study was to compare the acculturative stress between international students from a distant continent (Africa) and those from a home continent (Asia). Therefore, using an independent samples t -test, we compared experiences between African and Asian international students. Table 5 shows the t -test results for the two continents.

Table 4: T-test statistics values regarding continent ($n = 243$)

Variable	Africa		Asia		t	df	p
	M	SD	M	SD			
1. Perceived discrimination	2.50	0.96	2.19	0.75	2.691**	241	= 0.008
2. Homesickness	2.56	0.97	2.61	0.93	-0.400	241	= 0.690
3. Perceived hate	2.10	0.84	2.25	0.78	-1.385	241	= 0.167
4. Fear	1.84	0.87	2.06	0.85	-1.992*	241	= 0.047
5. Cultural shock	2.43	0.96	2.27	0.74	-1.342	241	= 0.181
6. Guilt	1.99	0.97	2.28	0.96	-2.246*	241	= 0.026
7. Miscellaneous	2.40	0.81	2.24	0.72	1.576	241	= 0.116
8. ASSIS	2.32	0.76	2.24	0.70	0.863	241	= 0.389

** = $p < .01$, * = $p < .05$. Source: Calculated by the author

Concerning other demographic characteristics than the origin of the students, independent samples t -tests indicate that for the overall acculturative stress scale, significant results were observed only on one variable, the length of stay. Students with more than one year of stay in China ($M = 2.09$, $SD = 0.63$) had lower mean scores than those with less than one year ($M = 2.39$, $SD = 0.76$); $t(241) = -3.024$, $p < 0.01$. There were no significant differences regarding gender $t(241) = -0.857$, $p = 0.392$; marital status $t(241) = -1.662$, $p = 0.098$; and source of finances $t(241) = -0.594$, $p = 0.553$. For specific acculturative stress sub-scales, however, gender significant difference was observed on the sub-scale of perceived hate; the mean score for male students ($M = 2.06$, $SD = 0.79$) was significantly lower than for female students ($M = 2.31$, $SD = 0.84$); $t(241) = -2.369$, $p < 0.05$. Furthermore, marital status difference was also noted in perceived hate; the mean score for single students ($M = 2.25$, $SD = 0.82$) was significantly higher than for married students ($M = 1.89$, $SD = 0.77$); $t(241) = 2.923$, $p < 0.01$.

To determine the differences based on students' age-range and education levels, a one-way analysis of variance (ANOVA) was used. The analysis showed that for the overall acculturative stress scale, significant results were observed across the three age-range groups [$F(2,240) = 3.725$, $p = 0.026$]. Post hoc comparisons using the Bonferroni test indicated that the mean score for the 18-25 age group was significantly higher than the 26-35 age group ($MD = 0.273$, $p = 0.007$). There were no significant differences among other age groups ($p > 0.05$). As for education levels, no significant differences were observed among the three group means on the overall acculturative stress scale [$F(2,240) = 2.947$, $p = 0.054$]. However, significant differences were observed on the sub-scales of perceived discrimination [$F(2,240) = 5.106$, $p = 0.007$], perceived hate [$F(2,240) = 4.893$, $p = 0.008$] and miscellaneous [$F(2,240) = 3.731$, $p = 0.025$]. In all three sub-scales, post hoc comparisons using the Bonferroni test indicated that the mean scores for students doing Bachelor's degrees were higher than the mean scores for either Master's or Doctorate students ($p > 0.05$).

5. Discussion

The current study examined the level and sources of acculturative stress among Asian and African international students at various universities in Wuhan, Hubei. It further investigated how acculturative stress is associated with socio-demographic factors. The results indicate that, overall, most international students studying in Central China do not experience significant acculturative stress. According to Sandhu and Asrabadi (1994), a mean total score above 109 (or a mean score of 3 on a Likert scale; Chavajay & Skowronek, 2008) on the **Acculturative Stress Scale for International Students (ASSIS)** signals high levels of perceived stress requiring intervention. Contrary to the main hypothesis that Asian and African students living in Wuhan would report high acculturative stress, the results revealed that total mean scores, as well as scores for each of the seven subscales, were below the threshold of 3. These findings align with studies conducted in other contexts, including the USA (Chavajay & Skowronek, 2008), China (Gebregergis, 2018), and Malawi (Ngwira & Kondowe, 2024), though inconsistent findings have been reported elsewhere (e.g., Liu, Jacques-Tiura, & Yan, 2014; Yu et al., 2014).

Although overall stress levels were low, this study explored the specific sources of acculturative stress. Consistent with previous research (Akhtar & Kröner-Herwig, 2015; Chavajay & Skowronek, 2008; Gebregergis, 2018; Ngwira & Kondowe, 2024), **homesickness** emerged as the most frequently reported stressor. Homesickness

often reflects loneliness and longing for family, friends, and familiar surroundings left behind in students' home countries. Adjusting to life abroad can amplify isolation in unfamiliar environments, reinforcing feelings of separation. To address this issue, Ngwira et al. (2015) recommend that universities implement **outreach programs** to introduce students to local customs and cultural norms, reducing the emotional focus on their home country. Additional stressors, such as perceived discrimination and cultural shock, also emerged prominently, while fear was the least reported stressor, echoing findings from Akhtar and Kröner-Herwig (2015).

The primary aim of this study was to compare acculturative stress levels between African and Asian students. Although both groups reported low overall stress levels, notable differences emerged. African students reported significantly higher levels of **perceived discrimination** compared to their Asian counterparts. This finding aligns with existing literature, which highlights that international students from distant cultural backgrounds are more likely to experience feelings of racial rejection, alienation, and exclusion in host societies (Chavajay & Skowronek, 2008; Ngwira et al., 2015). Perceived discrimination has been shown to discourage international students from socializing with locals, thereby intensifying their acculturative stress (Yeh & Inose, 2003; Chavajay & Skowronek, 2008).

Several social, political, and cultural factors may explain why African students in China encounter higher levels of discrimination. Racial bias and stereotypical perceptions of African identity, often rooted in misinformation, remain pervasive in certain segments of Chinese society (Li, 2018). During the COVID-19 pandemic, for example, African students were disproportionately subjected to racial and ethnic discrimination. A notable incident in Guangzhou saw African immigrants, including students, being forced out of their residences despite holding valid visas (Vincent, 2020; Agyenim-Boateng & Watson, 2023). Culturally, Confucian values that emphasize **ethnic homogeneity** and hierarchical social structures may further alienate African students. In contrast, Asian students, particularly from culturally proximate regions like South Korea, Taiwan, and Japan, are often viewed more favorably within Chinese cultural hierarchies (Huang, 2024). Additionally, African students' limited proficiency in Mandarin may exacerbate adaptation challenges, deepening their sense of exclusion and marginalization (Li, 2018).

Conversely, Asian students reported higher levels of **fear and guilt** compared to African students; they do not feel as discriminated against as African students do. This result aligns with the hypothesis (H1) that Asian students would experience lower levels of discrimination due to closer cultural proximity, which facilitates smoother adjustment to Chinese society (Berry et al., 1987). However, the elevated levels of fear and guilt suggest that Asian students face unique emotional challenges. Feelings of insecurity may stem from a strong sense of **ethnic identity and cultural preservation**, which are deeply embedded in many Asian societies (Tran, 2009; Ngwira et al., 2015). Tran (2009) found that Asian international students studying in Australia often experienced cultural mistrust toward both other international students and host community members. This heightened awareness of identity may explain why Asian students feel guilty for leaving their families and home countries behind, particularly in societies that emphasize filial responsibility.

Beyond the continent of origin, the study examined the association between acculturative stress and socio-demographic characteristics, including length of stay, age, gender, education, and marital status. The results confirmed the **length of stay** as a significant predictor of acculturative stress, consistent with cultural shock theories (Zhou et al., 2008). Individuals typically experience initial stress upon entering a new culture, but over time—usually after six months—motivation to adapt increases, and stress levels decline. This aligns with the current findings and our hypothesis (H2), showing that international students with longer stays in China report lower stress levels.

The association between **gender** and acculturative stress produced mixed results. While gender differences were not significant for overall stress levels, female students reported higher stress in the **perceived hate** subscale. These findings align with Gebregergis (2018) but conflict with other studies where male students reported higher stress (Ye, 2006) or female students exhibited overall higher stress levels (Eustace, 2007). Such inconsistencies may stem from the interaction between gender and other factors, such as cultural distance or personality traits (Berry et al., 1987; Desa et al., 2012).

In this study, age also played a critical role in acculturative stress. Contrary to earlier research (Ye, 2006; Gebregergis, 2018), the current study found that younger international students experienced higher levels of stress compared to older students. This may reflect the relative lack of emotional maturity, coping mechanisms, and life experience among younger students, which are essential for adapting to a new cultural and academic environment (Poyrazli et al., 2001). This finding aligns with observations that Bachelor's degree students—who tend to be younger—reported higher stress levels related to miscellaneous stressors, perceived discrimination, and hate. This supports the hypothesis (H3) and findings from previous studies (Berry et al., 2022; Yu & Wang, 2011), which associate higher education levels with improved coping strategies and lower acculturative stress. Additionally, single students—who are often younger—reported higher levels of perceived hate, suggesting that marital status may act as a buffer against certain stressors, potentially due to stronger emotional support systems.

6. Limitations

The findings of this study are subject to several notable limitations. First, the research employed a **cross-sectional design**, which limits the ability to capture the dynamic nature of acculturation over time. Acculturation processes are gradual and occur over extended periods; thus, a **longitudinal study** observing the same participants for at least a year would provide a more comprehensive understanding of acculturative stress and its progression (Berry et al., 2006).

Second, the study relied heavily on **forced-choice responses** using a Likert scale, which restricted participants' ability to express themselves fully. This limitation could hinder the depth of the data collected, as noted in Chavajay and Skowronek's (2008) research, where significant differences were observed between Likert scale surveys and qualitative interviews. The inclusion of **open-ended questions** in future research would allow for richer, more nuanced insights into the acculturation experiences of international students.

A third limitation lies in the lack of consideration for the **cultural and religious diversity** within African and Asian student groups. Both continents are culturally heterogeneous, comprising numerous ethnicities, languages, religions, and traditions that influence individuals' acculturation experiences. The current study grouped participants by continent, potentially overlooking important within-group variations. Future research should address this by collecting detailed data on participants' **specific cultural and religious backgrounds** to offer a more granular understanding of acculturative stress dynamics.

7. Conclusions

Findings from this study have critical implications for educators and administrators of international students, and the students themselves. Understanding the acculturation process could help reduce the adjustment difficulties faced by most international students. The study underscores critical acculturative issues the education sector in China needs to be aware of to help international students adjust their lives as they try to adapt to the new environment. Successful adjustment to new environments improves international students' lives psychologically, academically and socially (Yeh & Inose, 2003; Desa et al., 2012). Universities should implement comprehensive orientation programs that address both academic and cultural aspects of student's lives in the host country. These programs could include cross-cultural workshops, language support, and peer-mentoring systems that pair international students with local students to foster social integration. Encouraging involvement in campus clubs and cultural organizations can also create opportunities for international students to form meaningful connections, which research has shown reduces feelings of isolation and increases cultural understanding.

To create more inclusive environments for international students, particularly those from Africa, universities in China should implement targeted policies addressing the specific stressors these students face, including discrimination and culture shock. First, universities should establish anti-discrimination training for faculty, staff, and students to foster greater cultural sensitivity and reduce bias against African students. Additionally, creating support networks and mentorship programs that pair international students with local peers or faculty from diverse backgrounds can help mitigate feelings of homesickness and isolation. Finally, organizing regular cultural exchange events can help bridge the gap between international and local students, promoting understanding and reducing culture shock for all students. These measures would create a more supportive and inclusive academic environment.

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References

- Agyenim-Boateng, R., & Watson, A. (2023). The case of African international students in China at the height of COVID-19: International higher education's institutional silence on anti-Blackness. *Journal of International Students*, 14(4). <https://doi.org/10.32674/jis.v14i4.5517>
- Akhtar, M., & Kröner-Herwig, B. (2015). Acculturative stress among international students in context of socio-demographic variables and coping styles. *Current Psychology*. <https://doi.org/10.1007/s12144-015-9303-4>
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology*, 46(1), 5–34. <https://doi.org/10.1111/j.1464-0597.1997.tb01087.x>
- Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. B. Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement and applied research* (pp. 17–37). *American Psychological Association*. <http://dx.doi.org/10.1037/10472-004>
- Berry, J. W. (2015). Acculturation. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 520–538). The Guilford Press.
- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 21(3), 491–511. <https://doi.org/10.2307/2546607>
- Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (Eds.). (2006). *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts*. Lawrence Erlbaum Publishers. <https://doi.org/10.4324/9780415963619>
- Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (Eds.). (2022). *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts* (1st ed.). <https://doi.org/10.4324/9781003309192>
- Cai, Y. (2020, January). China's 2020 target: Reshaping global mobility flows. *European Association for International Education (EAIE)*. <https://www.eaie.org/blog/china-2020-target-reshaping-global-mobility-flows.html>
- Celenk, O., & van de Vijver, F. J. R. (2014). Assessment of acculturation and multiculturalism: An overview of measures in the public domain. In V. Benet-Martinez, & Y-Y. Hong (Eds.), *Oxford handbook of multicultural identity: Basic and applied psychological perspectives* (pp. 205-213). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199796694.013.001>
- Chavajay, P., & Skowronek, J. (2008). Aspects of acculturative stress among international students attending a university in the USA. *Psychological Reports*, 103(3), 827–835. <https://doi.org/10.2466/PRO.103.3.827-835>
- China emerging as a major destination for African students. (2021, April 21). *ICEF Monitor*. <https://monitor.icef.com/2021/04/china-emerging-as-a-major-destination-for-african-students/>
- Cobb, C. L., Martínez Jr., C. R., Lee, S., Lee, T. K., & Lorenzo-Blanco, E. I. (2021). Acculturation trajectories differ by youth age at arrival and time in residency among Latino immigrant families in a US emerging immigrant context. *International Journal of Intercultural Relations*, 82, 245–256. <https://doi.org/10.1016/j.ijintrel.2021.01.005>
- Crace, A. (2018, April). Record numbers studying in China, according to new MoE figures. *The PIE News*. <https://thepienews.com/news/record-numbers-studying-in-china/>
- Desa, A., Yusooif, F., & Kadir, N. A. (2012). Acculturative stress among international postgraduate students at UKM. *Procedia, Social and Behavioral Sciences*, 59, 364–369. <https://doi.org/10.1016/j.sbspro.2012.09.287>
- Eustace, R. W. (2007). Factors influencing acculturative stress among international students in the United States (Doctoral dissertation). *Kansas State University*. <http://krex.k-state.edu/dspace/handle/2097/1>
- Galchenko, I., & van de Vijver, F. J. R. (2007). The role of perceived cultural distance in the acculturation of exchange students in Russia. *International Journal of Intercultural Relations*, 31(2), 181–197. <https://doi.org/10.1016/j.ijintrel.2006.03.004>
- Gebregergis, W. T. (2018). Major causes of acculturative stress and their relations with sociodemographic factors and depression among international students. *Open Journal of Social Sciences*, 6(1), 400–419. <https://doi.org/10.4236/jss.2018.610007>
- Huang, M. (2024). Confucian culture and democratic values: An empirical comparative study in East Asia. *Journal of East Asian Studies*, 24(1), 71-101. <https://doi.org/10.1017/jea.2023.23>
- Lee, J., Koeske, G., & Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations*, 28(5), 399–414. <https://doi.org/10.1016/j.ijintrel.2004.08.005>
- Li, A. (2018). African students in China: Research, reality, and reflection. *African Studies Quarterly*, 17(4). <http://www.africa.ufl.edu/asq/v17/v17i4a2.pdf>
- Ministry of Education of the People's Republic of China. (2018, April). Growing number of foreign students choosing to study in China for a degree across multiple disciplines. *Ministry of Education*. http://en.moe.gov.cn/News/Top_News/201804/t20180403_332258.html
- Ngwira, F. F., & Kondowe, W. (2024). The Role of Social Support And Sociodemographic Factors In Predicting Intercultural Adjustment Among Malawian International Graduates In China. *Journal of Humanities*, 32(2), 62–85. <https://doi.org/10.4314/jh.v32i2.5>

- Ngwira, F., Hong, J., Sariyo, S., Mapoma, H. W. T., & Kondowe, W. (2015). Intercultural communication competence and acculturation among international students in Central China. *Intercultural Communication Studies*, 24(2), 61–83.
- Poyrazli, S., Arbona, C., Bullington, R., & Pisecco, S. (2001). Adjustment issues of Turkish college students studying in the U.S. *College Student Journal*, 35(1), 52–62.
- Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports*, 75(1), 435–448. <https://doi.org/10.2466/pr0.1994.75.1.435>
- Tang, L., & Zhang, C. (2023). Global research on international students' intercultural adaptation in a foreign context: A visualized bibliometric analysis of the scientific landscape. *SAGE Open*, 13(1), 1-18. <https://doi.org/10.1177/21582440231218849>
- Tran, L. N. (2009). *An acculturation dilemma for Asian international students in Australia: The case of Vietnamese international students*. The University of New South Wales.
- van Gardingen, T. (2024, July). How many international students study in China? *The PIE News*. <https://thepienews.com/how-many-international-students-study-in-china/#:~:text=In%202021%2C%20student%20enrolment%20data,1%25%20of%20total%20enrolment%20nationally>
- Vincent, D. (2020, April). Africans in China: We face coronavirus discrimination. *BBC News*. <https://www.bbc.com/news/world-africa-52309414>
- Ye, J. (2006). An examination of acculturative stress, interpersonal social support, and use of online ethnic social groups among Chinese international students. *Howard Journal of Communications*, 17(1), 1–20. <https://doi.org/10.1080/10646170500487764>
- 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. <https://doi.org/10.1080/0951507031000114058>
- Yu, B., Chen, X., Li, S., Liu, Y., Jacques-Tiura, A. J., & Yan, J. (2014). Acculturative stress and influential factors among international students in China: A structural dynamic perspective. *PLoS ONE*, 9(4), e96322. <https://doi.org/10.1371/journal.pone.0096322>
- Yu, W., & Wang, S. (2011). An investigation into the acculturation strategies of Chinese students in Germany. *Intercultural Communication Studies*, 20(2), 190–210.
- Zhou, Y., Divya, J., Keith, T., & John, T. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education*, 33(1), 63–75. <https://doi.org/10.1080/03075070701794833>

About the Author(s)

Flemmings Fishani Ngwira is a Senior Lecturer in Health and Behavior Change Communication at Malawi University of Business and Applied Sciences (MUBAS). He holds a PhD in Applied Psychology (Health Communication) and besides teaching and doing consultancies, he has a great passion for communication research. Specific areas in which he has authored and co-authored book chapters, peer-reviewed journal articles and conference papers, include Health and Behaviour Change Communication, Public Health Communication, Political Communication and Forensic Linguistics.

Hanna Yeshinegus Adamseged is a scholar who earned her PhD in Applied Psychology from Central China Normal University in Wuhan, China. She is currently a postdoctoral researcher specializing in Applied Psychology, with a focus on knowledge management, special needs education, and educational psychology. She has published work within the areas of Behavior and Cognitive Sciences.

Wellman Kondowe is a Senior Lecturer in the Department of Language, Cultural and Creative Studies at Mzuzu University in Malawi. He obtained his PhD in Applied Linguistics from Central China Normal University. His research interests include language and law, political discourse analysis, and applied language studies. He has just published a book volume titled *Multilingualism in Southern Africa* and some publications, “Entrenching Effective Multilingualism in Malawian Courtrooms through Interpreting Services”; “Unintended Mental Health Consequences of Media Framing During COVID-19”; and “Insincerity in Lawyers’ questioning strategies”. He is currently working on his third and fourth book volumes on *The Language of Violence and Crime in the Global South* and *Discrimination and Access to Justice in Southern and Eastern Africa* to be published by African Sun Press and Routledge, respectively.