

The role of social support and socio-demographic factors in predicting intercultural adjustment among Malawian international graduates in China

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Abstract

International students face challenges as they adjust to their living and learning ways in their new environment. The study aimed to examine the level of acculturative stress and social support Malawian international students in China experienced. The study further wanted to determine the role of social support on students' acculturation. A sample of 163 Malawian international graduates were recruited to participate in the study. The Acculturative Stress Scale for International Students (ASSIS) was employed to assess graduates' perceived discrimination, homesickness, perceived hate, fear, cultural shock, guilt, and miscellaneous stressors. Further, the Multidimensional Scale for Perceived Social Support (MSPSS) was used to measure graduates' level of social support from friends and family members. Data collected from this study was analysed using IBM® SPSS® statistics version 22. Findings indicated that Malawian graduates did not experience high acculturative stress. Nonetheless, homesickness, perceived discrimination, and cultural shock were their topmost reported sources of acculturative stress. Demographic characteristics such as length of stay, age, education, and marital status were also found to influence stress. Social support was also found to be associated with lower levels of acculturative stress. These findings have critical implications for educators and administrators of international students, and Malawian students in China.

Keywords

Malawi,
China,
acculturative stress,
social support,
international graduates

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Introduction

Thousands of students travel each year to pursue higher education in China. In recent years, this trend has been reinforced by China's target of hosting 500,000 international students by 2020 (Ngwira, et al., 2015) and the 2019 policy shift from quantity to quality (Cai, 2020). The greatest strides have been made in Africa, which experienced a year-on-year increase of 24.93% against the Asian 2.58% in 2015 ("Statistics on Foreign", 2015), and by 2017, African enrolments had grown nearly three times faster than enrolment from Asian countries ("China Emerging", 2021) despite Asia being the primary continent of origin for international students in China. Malawi is one of the countries that contributed to the increase of African students who pursue their higher education in China. According to the former Chinese Ambassador to Malawi, His Excellency Liu Hongyang, China provides around 100 full scholarships and 500 short-term training opportunities to all Malawian people each year ("Chinese Ambassador", 2020).

International students' stay in the host country is mutually beneficial in several ways. First, they contribute greatly to cultural diversity on university campuses and the host country as a whole. As they bring with them a wide range of knowledge, skills, and culture to the host country, they also gain a sense of cultural diversity and higher education (Smith & Khawaja, 2011). Despite the mutuality of educational and cultural benefits, international students face different challenges in adjusting to their living and learning ways in their new environment. Most international students report that their adjustment challenges emanate from such factors as language barriers, different academic styles, separation from home, discrimination, poor social integration, and unfamiliarity with the new surroundings (Meng, et al., 2018; Ngwira et al., 2015). This experience of social disorientation is what Berry (1997) calls acculturation stress. Acculturative stress is the psychological and physical discomfort experienced when the adaptation to a new culture seems to be somewhat demanding (Lee et al., 2004).

Compared with other sojourners, international students might experience higher acculturative stress because they are more likely to have limited personal resources; they might not seek proper psychological help for fear of stigma, and they might not have adequate social support as they enter the host country (Desa, 2012). Acculturative stress may impact international students' effective acculturation, which is the ability to cope with and respond to life events (Meng et al., 2018). Individuals have to adapt and adjust to a new cultural environment by resorting to resources at their disposal, one of which, according to Folkman and Lazarus (1988), is the support from individual networks. International students who seek or receive support from others represent a positive way of coping with acculturative stress. This support from others is called social support and it comes in different forms: giving and receiving tangible assistance [instrumental support], empathy [emotional support], and information [informational support] (Ye, 2006). Social support has been associated with the increased psychological well-being of an individual. In stressful times, social support reduces psychological distress (Azevedo et al., 2017; Ye, 2006) and promotes psychological adjustment (Lehto-Jarnstedt et al., 2004).

Social support plays a crucial role in the acculturation of international students because they are very far from their familiar environment and lack immediate support from their social networks. Studies in acculturative stress among international students have revealed that formal and informal social networks have profound positive consequences for mental and physical well-being (Bovier et al., 2004). Similarly, Yeh and Inose (2003) also found that students who were satisfied with their social support networks experienced less acculturative stress. In other words, social support helps in the acculturation of international students. On the contrary, failure to successfully adjust to a new life may be detrimental to various aspects of school life, resulting in poor academic performance, and psychological and physical health issues (Hang, et al., 2017; Martirosyan, et al., 2015). Besides social support, various potential demographic factors have been found to influence intercultural adjustment among international students. Acculturative studies cite socio-demographic characteristics such as gender, age, length of stay in the host

country, educational level, language competence, and financial resources, as the most common influences of acculturation among international students (Akhtar & Kröner-Herwig, 2015; Berry, 1997; Eustace, 2007).

Theory of Acculturation

Responses to the survey questions were analysed and interpreted based on the theory of acculturation. According to Berry (2015), acculturation is the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members. This contact results in changes at both individual (values, attitudes, and beliefs) and group (social and cultural systems) levels (Berry, 2003). Noticeable forms of the acculturation process are composed of three aspects. The first dimension involves antecedent factors, which are individual- and group-level acculturation conditions such as perceived discrimination, expectations, and personality. The second dimension of this process involves acculturation orientations, which are strategies, styles, and attitudes towards cultural adaptation. The last dimension constitutes the acculturation outcomes, which are consequences of the acculturation process which can either be psychological outcomes which is the internal adjustment or behavioural adaptation which is the external adjustment. (Celenk & van de Vijver, 2014). In this study, acculturative stress is presumed to be part of acculturation outcomes (psychological adjustment) and is believed to be affected by acculturation conditions such as perceived hate and orientations such as social support.

To our knowledge, no prior studies have examined the role of social support and demographic factors on the acculturation of Malawian international students in China. Therefore, this study aimed to bridge this information gap by taking a psychological perspective to understand the experiences of acculturative stress and social support among Malawian international students in China. Furthermore, the study intended to determine whether social support and students' demographic characteristics mitigate acculturative stress. It was expected, therefore, that due to their limited personal and financial resources, new environment, fear of stigma and

language problems (Desa et al., 2012), Malawian international students in China might experience varying levels of acculturative stress. Thus, the following specific hypotheses were proposed:

- H1: The longer international students stay in China, the lower the acculturative stress they experience.
- H2: The higher the education level international students pursue, the lower the acculturative stress they experience.
- H3: There is a negative relationship between social support and acculturative stress.

Methodology

This was a cross-section study involving a quantitative method of data collection and analysis. A total of 163 Malawians who pursued their higher education in various international universities in China between 2015 and 2021 were recruited to participate in the study. The snowball sampling technique was used to select the respondents for this study. This is a non-probability sampling technique in which the existing respondents provided referrals to recruit other participants required for the study. Only Malawians who studied in and graduated from Chinese universities were eligible to be included in the study; there were no other exclusion criteria. This selection criterion yielded participants from most parts of the country, with different economic, cultural, and social backgrounds.

To determine experiences of acculturative stress among Malawian international students in China, this study used an adapted version of the Acculturative Stress Scale for International Students (ASSIS) questionnaire (Sandhu & Asrabadi, 1994). The instrument is a 36-item scale which was scored on a 5-point Likert scale (1=strongly disagree to 5=strongly agree) with Chronbach's coefficient alpha of 0.95. ASSIS consists of 7 subscales of 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). To

further establish the perceived social support, the study used an adapted version of the Multidimensional Scale of Perceived Social Support (MSPSS) questionnaire (Zimet et al., 1988). The survey comprises 12 items designed to assess perceived social support from three specific sources: family, friends, and significant others. However, for the purpose of this study, only items related to support from friends and family were used. The survey has been validated by other previous studies with good internal consistency ($\alpha = 0.71$; see Lashari et al., 2018).

The survey was conducted in April 2022. The study used an online self-administered questionnaire which was designed through Google Form, a cloud-based data management tool, and was sent through different social media channels (e.g. WhatsApp and WeChat) and emails. The online questionnaire included a consent statement seeking participation approval. To ensure the privacy and confidentiality of the participants, the survey was made anonymous; only the researcher had access to their demographic data. All electronically downloaded data was kept in a password-protected computer for analysis.

Data was downloaded from the online self-administered questionnaire. Data was then entered in IBM® SPSS® statistics version 22, a software for quantitative analysis. Prior to the data analysis, the collected data was screened for accuracy and missing values. To ensure the instruments' internal consistency on the current sample, reliability analysis using Cronbach's alpha was calculated and reported. Pearson correlations were calculated to establish the association between variables assessed in the study. Descriptive statistics for all the tested variables were tabulated from raw data. To test if there were disparities in the studied variables between and among population sub-groups, independent samples t-test and the Analysis of Variance (ANOVA) were used ($p < 0.05$). Finally, a multiple stepwise regression analysis was used to examine if social support predicted acculturative stress.

Results

A sample of 163 Malawian graduates who studied in China was recruited for the study. Table 1 summarises participants' socio-demographic characteristics).

Table 1 Socio-demographic characteristics of the study participants

Participants groups	Sub-groups	Frequency	Percentage
Gender	Male	102	63
	Female	61	37
Marital status	Single	119	73
	Married	44	27
Source of finance	Scholarship	128	79
	Self	35	21
Length of stay	≤ two years	58	36
	> two years	105	64
Age range	18 - 25 years	57	35
	26 - 35 years	89	55
	36 - 45 years	17	10
Education	Bachelors	59	36
	Masters	68	42
	Doctorate	36	22

Acculturative stress and social support for Malawian international graduates

For the present study, the overall Cronbach coefficient alpha of acculturative stress was 0.95. For the seven sub-scales, the Cronbach coefficients alpha ranged from 0.72 to 0.89. As for the social support scales, the overall Cronbach coefficient alpha was 0.79, with 0.67 for social support (family) and 0.74 for social support (friends). 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, and both sub-scales of social support including the overall score of social support. Correlation results showed that there were significant positive relationships within all the acculturative stress variables and social support sub-scales. As expected, negative correlations were observed between acculturative stress and social support scales. Other strong correlations were noticed between miscellaneous sub-scale and other scales. Strong correlations were observed between ASSIS and almost all the sub-scales, and between social support and

both sub-scales. All other correlations were either strong or moderate. There were no weak correlations. Strong correlation postulated that the variables had strong relationships, which suggested 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	9	10	11
1. Perceived discrimination	2.50	0.94	1										
2. Homesickness	2.60	1.01	0.44**	1									
3. Perceived hate	2.12	0.84	0.71**	0.42**	1								
4. Fear	1.87	0.87	0.57**	0.54**	0.71**	1							
5. Cultural shock	2.46	0.99	0.59**	0.67**	0.58**	0.60**	1						
6. Guilt	1.99	0.97	0.55**	0.62**	0.57**	0.60**	0.57**	1					
7. Miscellaneous	2.41	0.82	0.77**	0.61**	0.75**	0.74**	0.74**	0.59**	1				
8. ASSIS (overall)	2.34	0.77	0.86**	0.70**	0.82**	0.81**	0.81**	0.71**	0.52**	1			
9. Social support (friends)	3.92	0.83	-0.65**	-0.64**	-0.45**	-0.76**	-0.85**	-0.71**	-0.63**	-0.60**	1		
10. Social support (family)	3.45	0.92	-0.80**	-0.77**	-0.56**	-0.69**	-0.61**	-0.56**	-0.59**	-0.67**	0.76**	1	
11. Social Support (overall)	3.21	1.30	-0.86**	-0.67**	-0.50**	-0.73**	-0.74**	-0.65**	-0.61**	-0.63**	0.78**	0.76**	1

** Correlation is significant at $p < 0.001$ level (2-tailed)

To examine Malawian international graduates' level of their perceived overall acculturative stress (ASSIS) and specific sources of acculturative stress, one-sample t-test was used. We used the test score of 3.0 being the median (not sure). Means significantly below 3.0 indicated disagreement with the item statement, suggesting no stress (Chavajay & Skowronek, 2008). The results, as shown in Table 3, indicated that students experienced no stress. However, by ranking the sources of acculturative stress (sub-scales) with reference to the mean inspection, results showed that homesickness, perceived discrimination and cultural shock were the topmost reported stressors while fear was the least reported stressor (see Table 3).

Table 3 one sample t-test results for Malawian graduates' acculturative stress (test value = 3)

Variable (ranked)	Mean	SD	t(162)	p-value
1. Homesickness	2.60	1.00	-5.04**	< 0.001
2. Perceived discrimination	2.50	0.94	-6.81**	< 0.001
3. Cultural shock	2.46	0.99	-7.02**	< 0.001
4. Miscellaneous	2.42	0.82	-9.05**	< 0.001
5. Perceived hate	2.12	0.84	-13.35**	< 0.001
6. Guilt	1.99	0.97	-13.23**	< 0.001
7. Fear	1.87	0.87	-16.46**	< 0.001
ASSIS (overall)	2.34	0.77	-11.04**	< 0.001

** = $p < .001$

Since the results of an overall scale and the specific sub-scales indicated no acute acculturative stress, individual items were further tested to check the stress level that could be of concern among the graduates. Only one (item 36), which is an item for 'homesickness' sub-scale, showed the presence of some higher level of perceived acculturative stress. Item 36, 'I miss the people and my country of origin' (M = 3.25, SD = 1.41), suggested feelings of loneliness which may be related to students' thinking about their loved ones and everything they had left in their

home country. As for the individual students' scores on the total overall scale, 23 (14.1%) students had a mean score higher than 3.0 indicating that out of 163, only 23 students experienced acculturative stress that could be of concern.

To examine Malawian international graduates' level of their perceived social support, one-sample t-test was used. Similarly, we used the median test score of 3.0 (not sure). Means significantly below 3.0 indicated disagreement with the item statement, suggesting no perceived social support. Results indicated that these graduates perceived high levels of social support from friends and family members while in China. Ranking their social support, the results showed that graduates received higher social support from friends than family members (See Table 4).

Table 4 one sample t-test results for Malawian graduates' social support (test value = 3)

Variable	Mean	SD	t(162)	p-value
1. Social Support (friends)	3.39	1.34	6.81**	< 0.001
2. Social Support (family)	2.93	1.26	5.04**	< 0.001
3. Social Support (overall)	3.21	1.30	6.21**	< 0.001

Disparities regarding socio-demographic characteristics of the participants

Apart from examining the levels of acculturative stress and social support in the entire sample, the study further compared the experiences of acculturative stress and social support using socio-demographic sub-groups. The first to compare was gender, and we used independent samples t-test. Table 5 shows the t-test results for the gender differences. Interestingly, female graduates perceived higher levels of acculturative stress than male graduates ($p < 0.01$; $p < 0.05$), and they perceived lower social support than their male counterparts ($p < 0.001$).

Table 5 t-test statistics values regarding gender differences (n = 163).

Variable	Male		Female		t	df	p-value
	M	SD	M	SD			
1. Perceived discrimination	2.38	0.81	2.68	1.11	-1.998**	161	= 0.001
2. Homesickness	2.60	0.90	2.61	1.16	-0.117**	161	= 0.006
3. Perceived hate	2.01	0.72	2.30	1.00	-2.177*	161	= 0.020
4. Fear	1.77	0.75	2.05	1.03	-1.964**	161	= 0.004
5. Cultural shock	2.42	0.90	2.52	1.11	-0.610*	161	= 0.029
6. Guilt	2.02	0.98	1.93	0.98	0.570	161	= 0.584
7. Miscellaneous	2.35	0.74	2.53	0.94	-1.293*	161	= 0.029
8. ASSIS (overall)	2.27	0.67	2.45	0.93	-1.438*	161	= 0.011
9. Social Support (friends)	3.95	1.22	2.92	1.25	4.500***	161	= 0.000
10. Social Support (family)	3.38	1.35	2.54	1.03	3.868***	161	= 0.000
11. Social Support (overall)	3.42	1.18	2.08	1.07	4.201***	161	= 0.000

*** = $p < 0.001$, ** = $p < 0.01$, * = $p < 0.05$

Looking at other demographic characteristics, independent samples t-test results showed that on marital status, graduates who were single (M = 2.48, SD = 1.06) perceived higher acculturative stress emanating from cultural shock than their married counterparts (M = 2.39, SD = 0.74); $t(241) = 0.563$, $p < 0.01$. On the contrary, graduates who were married (M = 3.32, SD = 1.23) perceived higher social support from family than their counterparts who were single (M = 3.18, SD = 1.02); $t(161) = 2.324$, $p < 0.001$; and graduates who were single (M = 3.30, SD = 1.03) perceived higher social support from friends than graduates who were married (M = 3.14, SD = 0.94); $t(161) = 1.974$, $p < 0.01$. In as far as length of stay is concerned, no significant results were observed on acculturative stress ($p > 0.05$). However, on social support, graduates who stayed in China for more than two years (M = 3.36, SD = 1.24) perceived higher social support than those who stayed in China for less than 2 years (M = 2.47, SD = 0.86); $t(161) = 2.178$, $p < 0.001$.

Concerning financial source, whether the graduates shouldered their own tuition fee or were sponsored, t-test results showed no significant differences ($p > 0.05$).

To establish the differences based on students' age-range and education levels, one-way analysis of variance (ANOVA) was used. Considering age-range differences, no significant results were observed on acculturative stress ($p > 0.05$). However, on the overall social support scale, significant results were observed across the three age-range groups [$F(2,240) = 5.107, p = 0.006$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the 18-25 age-group was significantly higher than the 26-35 age-group ($MD = 0.263, p = 0.007$) and the 36 and above ($MD = 0.275, p = 0.005$). There were no significant differences among other age groups ($p > 0.05$). Findings regarding education level differences showed significant results on perceived discrimination [$F(2,160) = 3.195, p = 0.044$] and hate [$F(2,160) = 5.327, p = 0.006$]. In both sub-scales, post hoc comparisons using the Tukey HSD test indicated that the mean scores for graduates who did their Bachelor's degree were higher than the mean scores for graduates who did either Master or Doctorate degrees ($p < 0.05$). No significant differences were observed on social support ($p > 0.05$).

Predictors of acculturative stress

A stepwise multiple regression was used to test if social support significantly predicted graduates' levels of acculturative stress. The prediction model was statistically significant, $F(2, 160) = 47.202, p < 0.001$, and accounted for approximately 52% ($R^2 = 0.523$) of the variance of acculturative stress. Results indicated that graduates' acculturative stress was first predicted by social support from friends and second by social support from family members. Table 6 presents the raw and standardised regression coefficients of the predictors.

Table 6 Step-wise regression results for acculturative stress (n = 163)

Model		Unstandardised		Standardised		
		Coefficients		Coefficients		
Types of social support		B	Std. Error	Beta	t(122)	p-value
1	Social support (friends)	-0.539	0.059	-0.543	-8.240	= 0.000
2	Social support (friends)	-0.337	0.072	-0.409	-3.976	= 0.000
3	Social support (family)	-0.186	0.081	-0.211	-2.346	= 0.003

Discussion

The study examined the acculturative experiences of Malawian graduates while studying their various degree programmes in China. The study assessed the level of acculturative stress and social support among Malawian graduates who studied at various universities in China. Furthermore, it investigated how these two variables, acculturative stress and social support associate with socio-demographic factors of Malawian graduates. Finally, the study examined the role of social support, especially from friends and family members, on acculturative stress.

Results on acculturative stress suggest that, overall, most Malawian graduates do not experience acculturative stress that may be of concern whilst at school. According to Sandhu and Asrabadi (1994), the mean total score above 109 (mean score of 3; Chavajay & Skowronek, 2008) for the entire Acculturative Stress Scale for International Students (ASSIS) measure indicates evidence that the stress perceived by an individual is high and may need some counselling. Contrary to the main hypothesis that most graduates from Malawi experience a considerable amount of acculturative stress which would be of concern, results indicated that the scores were below 109 (mean score of 3) for the total mean score and the means of each of the seven subscales on the ASSIS. The current findings are also in line with other studies done elsewhere, for instance, in the USA (Chavajay & Skowronek, 2008) and China (Gebregergis, 2018). Other similar studies, however,

found inconsistent results (e.g. Yu et al., 2014), where international students in China experienced somewhat higher levels of acculturative stress.

Despite current findings showing low levels of stress, the study examined the specific sources of Malawian graduates' acculturative stress. Consistent with other studies (Akhtar & Kröner-Herwig, 2015; Chavajay & Skowronek, 2008; Gebregergis, 2018), homesickness was ranked the topmost reported source of acculturative stress among Malawian graduates. A further inspection of individual items for the entire ASSIS measure revealed that only one item, under the 'homesickness' sub-scale, was found to be significantly higher than other scores from other items. The finding underscores the fact that homesickness was the highest source of stress as these graduates were pursuing their education in China. The finding suggests feelings of loneliness, which could be related to students' thinking about their loved ones and everything they had left in their home country. Leaving one's familiar environment (family, friends and other aspects of life) in pursuit of further studies abroad makes most international students feel lonely living in the unfamiliar environment. As the theory of acculturation states, stress, as a psychological outcome of accumulation is affected by homesickness, which is the acculturative condition (Celenk & van de Vijver, 2014). As Ngwira et al. (2015) suggest, universities should provide outreach programmes for international students to gain greater familiarity with the customs, behaviours and other cultural aspects of living in China.

Additionally, the study investigated the association between acculturative stress and other socio-demographic characteristics of international students in Central China. The study revealed that acculturative stress was associated with, gender, marital status and education. Inconsistent with previous studies (Eustace, 2007; Yu & Wang, 2011; Yu et al., 2014) and contrary to H1, length of stay did not show any association with acculturative stress. Furthermore, age and source of finances were not associated with acculturative stress. There could be some cultural reasons that make these results differ from other studies (Thomas & Sumathi, 2016; Yu et al., 2014) which found that length of stay and age influenced the experience

of acculturative stress in international students. Culture is an important variable in acculturation as Berry (2015) elaborates, and consequently, acculturation outcomes may not be similar from one culture to the other.

As indicated, gender showed a significant association with stress where female graduates experienced higher levels of acculturative stress in all the sources apart from perceived guilt. This shows how vulnerable Malawian women are to acculturative stress. Thomas and Sumathi (2016) further support these results. In their study, gender influenced acculturative stress; female students reported higher stress compared to their male counterparts. Other literature provides inconsistent results on gender and acculturative stress. While some studies discovered that largely there was no significant association between gender and acculturative stress (eg. Gebregergis, 2018), some found that male students reported higher acculturate stress than their female counterparts (e.g. Ye, 2006). The inconsistent results on these demographic factors among different studies could be due to other interactional factors such as cultural distance, which is also a predictor of acculturative stress (Berry et al., 1987; Desa et al., 2012).

Marital status and level of education also played an important role in Malawian graduates' acculturative stress. Graduates who were single reported experiencing higher levels of cultural shock than those who were married. Contrary to other studies (Berry, 1997; Gebregergis, 2018; Ye, 2006), the study found that graduates who were single, and relatively young, experienced higher levels of stress, especially from cultural shock. In line with other studies (e.g. Poyrazli et al., 2001), our study results suggest that younger international students experience acculturative stress more than their older and mature counterparts. The finding resonates well with the other finding in this study where students pursuing bachelor's degrees, who were usually relatively younger compared with students doing master's and doctorate degrees, experienced higher levels of stress emanating from perceived discrimination and hate. This is in line with our hypothesis (H2) and other studies (Berry et al., 2022; Yu & Wang, 2011); higher education is associated with lower levels of acculturative stress. These findings postulate that younger international

students may lack the maturity and ability to deal with their new responsibilities as they are away from their homes.

One of the major motivations for conducting this research was to find out, from the Malawian graduates, their perceived levels of social support and the role it has on acculturation. The study results showed that Malawian graduates experienced higher levels of social support from both friends and family members as they were pursuing their education in China. These findings are in line with a study by Ong and Ward (2005) where they found that international students relied on the support from people and peers from the host country and other countries at the same university. Supportive host country individuals become very key in providing international students with their needs in all the three aspects, namely, tangible assistance [instrumental support], empathy [emotional support], and information [informational support] (Ye, 2006). As Lashari et al. (2018) argue, literature posits that support from peers is instrumental in providing emotional and informational support to students who are away from their home countries. According to the acculturation theory, social support is one of the acculturation orientations which affect psychological adjustment (Berry, 2015).

The study further wanted to assess the link between socio-demographic characteristics of the participants and social support. The study revealed that social support was associated with gender, marital status, and education. In addition, social support was also associated with length of stay and age. On gender differences, this study discovered that female graduates had lower levels of social support, which is contrary to what other scholars found. In a different study conducted by Turner (1994) in Canada on immigrants, women reported having more social support despite reporting higher levels of stress and depression than men. Regarding marital status, this study revealed that graduates who were single perceived higher social support from friends than those who were married. This is again not in line with another study conducted in the US among foreign midwives, which found that married women had a significant social well-being advantage over single women (Shapiro & Keyes, 2008). Similarly, this current study found that younger

graduates perceived higher social support than their older counterparts. A possible explanation is that since it is almost certain that younger university students are mostly single, it could be that they easily make friends with the natives; due to their openness and flexibility, younger students associate with the host members easily (Berry, 1997).

One key finding of the study is that social support predicted acculturative stress. This finding supports our expectations (H3). The result suggests that social support reduces individuals' acculturative stress. In line with the acculturation theory, social support is one of the acculturation orientations that affect psychological adjustment (Celenk & van de Vijver, 2014) which, in this study, is the acculturative stress. According to this study, the results postulate that social support from friends and family members is very vital for the acculturation of international students. These results are in line with what Thomas and Sumathi (2016) found in India. In another study, it was discovered that people who were more satisfied with their interpersonal support networks reported less perceived discrimination and perceived hatred (Ye, 2006). These findings indicate that social support may serve as a protective factor to buffer acculturative stress among international students. Since Malawian international graduates were very far from their families, relatives, and friends at home, the social support they perceived suggests that it was from both the traditional social networks (with native or fellow foreign friends) and the online social networks (friends and family members at home). Studies have demonstrated the key role online social networks have in cross-cultural adjustment (Ye, 2006). As Berry (1997) argues, these results demonstrate that social support from various sources is associated with more successful adaptation.

Limitations

The findings of this study are subject to some notable limitations. First, we over-relied on restricting participants to forced-choice answers on a Likert scale without allowing them to express themselves fully in open-ended questions. As noted in a study conducted by Chavajay and Skowronek (2008), contrasting

results were observed between a Likert scale survey and in-depth interviews, which demonstrates the intricacies of capturing evidence on acculturation developments. A complimentary use of quantitative and qualitative methods is important for investigating acculturative stress among international students. The other noteworthy limitation is that this was a cross-sectional study, which suggests that it lacks longitudinal data. Moreover, not all participants of this study attended their education in China at the same time. Acculturation processes in individuals take place over a period of time, as such, experiences of acculturative stress would better be understood by conducting a longitudinal study on the same participants over a period of at least a year (Berry et al., 2022). The other limitation of this study is that we used a snowball type of sampling technique. The sample size could not be predetermined, and the decision to stop the survey was subjective, leading to uncertainty about the representativeness of the sample. Finally, the study did not correlate students' acculturative stress with their coping strategies. Active coping buffers the impact of stressful situations on international students (Desa et al., 2012; Akhtar & Kröner-Herwig, 2015; Ye, 2006). Further studies need to consider investigating the interplay among these variables on international students studying in China to correlate students' acculturative stress with coping strategies.

Conclusion

Results of this study imply that Malawian graduates do not experience high acculturative stress, although homesickness, perceived discrimination, and cultural shock were the topmost reported sources. Demographic characteristics such as length of stay, age, education, and marital status were also found to influence stress. Social support was found to be associated with lower levels of acculturative stress. These findings have critical implications for educators, administrators, and councillors of international students on both, Malawian and Chinese socio-cultural spectrums. Theoretically, the study provides a better understanding of acculturation and suggests factors that help to facilitate adjustment to a new culture (Celenk & van de Vijver, 2014). It indicates that social support, especially from various sources (family and friends) and various means (traditional and online),

can be an effective strategy for reducing acculturative stress among international students, thereby ensuring better internal adjustment and well-being (Celenk & van de Vijver, 2011). The study provides essential insights in assisting Chinese universities to come up with effective programmes that enhance contact between cultures. Successful adjustment to new environments improves students' lives psychologically, academically, and socially (Desa et al., 2012; Yeh & Inose, 2003).

Thus, the study suggests that for successful acculturation among international students, universities in China should offer more outreach platforms of social interaction with students of the host country, China, and other international students. This way, students may gain greater familiarity with the customs, behaviours, and other cultural aspects of living, which facilitate effective acculturation (Celenk & van de Vijver, 2011). International students should also be aware of major sources of acculturative stress, and be able to identify different hobbies, lifestyles, and interests that can be pursued in the new cultural environment to reduce the stress. This may further reduce feelings of homesickness, which happens to be the topmost reported source of stress in this study as well as in other previously conducted studies (Akhtar & Kröner-Herwig, 2015; Gebregergis, 2018). Acculturative stress should be of concern to educators and international students; it has been associated with physical, psychosocial, and behavioural problems among students, which may affect their academic success (Eustace, 2007; Thomson et al., 2006). Acculturative stress is presumed to be part of psychological adjustment and is believed to be affected by acculturation conditions. Therefore, for successful acculturation among international students, effective strategies such as using social support from family and friends need to be employed.

Declaration of Conflict of Interest

There is no conflict of interest.

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