



RESEARCH ARTICLE

Host Communication Competence and Psychological Adaptation to Sociocultural Adaptation among International Students in China

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ABSTRACT

The number of international students studying in China has increased dramatically in recent decades, necessitating consideration of their sociocultural adaptation. Nevertheless, interactions between host communication competence, psychological adaptation, and demographic factors affecting international students' sociocultural adaptation in China have received limited attention. There has been a surge in international student enrollment in Northwest China; consequently, 516 international students were recruited to understand their sociocultural adaptations. Using R-Studio, statistical analyses revealed four clusters of students with distinct psychological and sociocultural adaptation trends among international students. The model estimated that the demographics of students, languages, and prior foreign education experience could be the control factors, whereas communication competence and psychological adaptation could be predictors of the variability in sociocultural adaptation. Cluster A and Cluster C comprised mostly of native English speakers who had resided in China for two years or more; greater sociocultural adaptation was associated with a longer stay and older age. Conversely, Cluster B and Cluster D represent international student groups who are younger and do not speak Chinese; host communication competence did not exhibit a substantial relationship with sociocultural adaptation for these two clusters. The data indicate variations in psychological adaptation and host communication competence across different clusters of international students. The findings revealed a significant relationship between psychological adaptation and sociocultural adaptation, overshadowing the role of host communication competence. The study emphasized that the impact of these factors can vary depending on sociodemographic and linguistic background.

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INTRODUCTION

In recent years, the expansion of international education in China has accelerated remarkably. Specifically, between 2019 and 2022, the number of international students in China increased by 3.4 million, representing a substantial 42% growth (Liu et al., 2022). With the increasing trend of international education, the need to ensure the sociocultural adaptation of international students is also increasing (Liu et al., 2022; Shafaei et al., 2018). In this context, the university, social environment, and communication play major roles in preventing social isolation (Kim, 2017; Wu et al., 2015). Cross-cultural adaptation is a major influencer for international students in China and

encompasses their host communication competence, psychological adaptation, and sociocultural adaptation (Kim, 2017; Koswara & Lukman, 2022; Ward, 2001).

Since arriving in China for further academic studies, international students from various psychological and sociocultural backgrounds have faced numerous challenges concerning social interaction, academic performance, and living and learning experiences that influence their adjustment and satisfaction (Bierwiazzonek & Waldzus, 2016; Stanciu & Vauclair, 2018; Wen et al., 2018).

The sociocultural adaptation of international students in China is impacted by cultural differences and prior cultural knowledge. Language proficiency, prior foreign education experience, and student/faculty interaction also influence students' sociocultural adaptation (Akhtar et al., 2015; Di et al., 2022; Shafaei et al., 2018). Sociocultural adaptation involves incorporating some key parts of major culture into the new social culture without fully discarding their original cultural element, which is an ongoing problem faced by international students in foreign cultures (Wang, 2020; Xu et al., 2021).

Most studies on international students' sociocultural adaptation have taken place in Western cultures (Aigerim & Lan, 2022; Mika & Gudykunst, 2002; Ruby et al., 2006; Seda & Lan, 2021). The proficiency of language and relationships with locals are strongly associated with the psychological challenges that international students confront (Özgür et al., 2014; Yu & Sheng, 2012). These challenges cause symptoms of stress as well as experiences of homesickness, alienation, depression, and loneliness (Graham et al., 2020; Lei, 2020), according to commonly identified sources. However, researchers have nearly ignored international students in China (He, 2022; Wang, 2020; Wang, 2021). As a result, research into international students' sociocultural adaptation is required to assist them in overcoming these challenges.

Hence, this study focused on exploring sociocultural adaptation among international students in Northwest China by specifically evaluating the role of host communication competence and psychological adaptation, determining the mediating effect of psychological adaptation on the relationship between host communication competence and sociocultural adaptation, and identifying sociocultural adaptation among international students in the post-COVID-19 era. The aim of this study is to improve sociocultural adaptation across the international education system by developing an understanding of sociocultural adaptation and the underlying factors.

LITERATURE REVIEW

Cross-cultural adaptation can be usefully divided into two domains: psychological (emotional/affective) and sociocultural (Ward & Kennedy, 1999). The first is concerned with psychological contentment or well-being, while the second is concerned with one's capacity to "fit in" and learn culturally relevant skills while navigating the social aspects of the host environment. According to Ward's (2001) definition of cross-cultural adaptation, which includes both psychological and sociocultural adaptation, psychological adaptation can be best described in terms of stress and coping frameworks, but sociocultural adaptation can be best explained in terms of social skill acquisition or coping paradigm culture.

Personality, life events, coping mechanisms, and social support all have a significant impact on psychological adaptation, which is characterized by psychological and emotional well-being. In contrast, behavioral competence, which is characterized in terms of sociocultural adaptation, is more significantly influenced by the variables underlying cultural learning and the development of social skills. These include the amount of time spent adjusting to the new culture, cultural knowledge, the degree of interaction and affiliation with the host people, the distance between the two cultures,

language proficiency, and acculturation techniques (Ward & Kennedy, 1993; Ward & Kennedy, 1999; Ward, 2001).

International students' mental health may suffer greatly when they study abroad and have stressful experiences (Bierwiazzonek & Waldzus, 2016; Stanciu & Vauclair, 2018). International students may feel dread as they prepare to begin a new life, along with enthusiasm, happiness, good attitudes, and high aspirations for further education and living abroad (Ren & Wei, 2022). International students' sensitivity to extreme emotional experiences, anxiety, depression, and other mental health concerns may be exacerbated by difficulties in sociocultural adaptation (Wang, 2020; Wang, 2021).

Each international student brings their own national culture and traditions as well as a variety of languages, faiths, and lifestyles which present significant hurdles for their new way of life. Even if they were proficient in Chinese before they came to China, they would struggle with daily expression in practice. Furthermore, there were many opportunities for cross-cultural language communication difficulties since international students from many nations and regions had noticeable disparities in their modes of language expression. When speaking with others, these issues make international students in China anxious and afraid (Chen, 2021; He, 2022).

The existing research on international students' sociocultural adaptation in China has focused more on the impacts of the learning environment, education policies, and living conditions on host communication competence, as well as on psychological and sociocultural factors, rather than on the relationships among host communication competence, psychological factors, and sociocultural factors (Akhtar et al., 2015; Jiang et al., 2020; Wen et al., 2018). Most studies use crude populations or specific nationalities, with minimal research on adaptation post-COVID-19 despite significant educational system changes in China (An & Chiang, 2015; Cao & Meng 2022; Cao et al., 2023). The current literature fails to explore sociocultural adaptation and related factors specific to defining international student groups in China, and more targeted research is needed for actionable insights.

METHODOLOGY

This research involved a cross-sectional survey conducted during the post-COVID-19 period between June and August 2023 for all international students in Northwest China. Due to the restrictions of the COVID-19 movement, the questionnaires were distributed via an online platform. A total of 600 questionnaires were sent out, and 516 were returned (**Table 1**). However, some of the responses were incomplete or invalid, and only 488 samples remained for the final analysis.

Table 1: Demographics of international students in northwest China

Basic Information		N	%
Gender	Male	370	71.7
	Female	146	28.3
Age	16-20	50	9.7
	21-25	194	37.6
	26-30	160	31.0

	31-40	96	18.6
	41-50	16	3.1
HSK Level	Do not speak Chinese	80	15.5
	HSK1	33	6.4
	HSK2	16	3.1
	HSK3	192	37.2
	HSK4	130	25.2
	HSK5	65	12.6
Native English Speaker of English	NO	450	87.2
	Yes	66	12.8
English Level	Not good	16	3.1
	General	66	12.8
	Good	225	43.6
	Very good	209	40.5
Total Length of Stay in China	3-6 months	113	21.9
	6 months- 2 years	32	6.2
	over 2 years	371	71.9
Studied Outside Home Country Before Coming to China	No	420	81.4
	Yes	96	18.6
	Total	516	100.0

Three instruments were used in this study: the Communicative Competence Scale, the Attitudes and Beliefs Scale-2 Short Form, and the Revised Sociocultural Adaptation Scale. The collected responses from the online survey were coded and analyzed on the R-studio platform. The hierarchical linear regression method was used to construct a linear equation to predict the adaptability of international students while considering age, gender, national origin, duration of living in China, experience studying in other countries, proficiency in the Chinese language, and proficiency in English (CI 95%, $\alpha = 0.05$). ANOVA is used to compare two levels of nested

regression models. Hierarchical cluster analysis was used to cluster the population of international students into different groups while comparing the level of sociocultural adaptation.

FINDINGS AND DISCUSSION

After executing the hierarchical regression and cross-validation analysis using two-step modeling, a significant difference was found in the predictability between Model 1 and Model 2. In **Table 2**, Model 1 included only the demographic and background-related variables of the participants, and Model 2 included the independent variables of host communication competence and psychological adaptation. Considering sociocultural adaptation as a dependent variable, Model 2 showed that demographic factors and chosen independent variables can predict 34.41% of the variability in sociocultural adaptation. The demographic variables and background factors could only predict 0.23%, which is negligible.

Table 2: Regression Outputs of Model 1 (Demographic Variables) and Model 2 (IVs) for Entire Students

	Model 1	Model 2	VIF
R-square	0.0023	0.3441	
F-stat	0.16	27.86***	
Residual	0.73	0.20	
RSE	8.78	7.13	
Constant	77.18	27.81***	
Gender Male	-0.35	-1.15	1.39
Age	-0.08	0.11	1.32
HSK Level (Students)	0.13	0.24	1.33
Native English Speaker (Student)	0.69	0.61	1.52
English Level (Student)	-0.02	0.20	1.29
Total length of stay in China	-0.13	-0.07	1.2
Studied Outside the Home Country Before	-0.28	-0.57	1.09
Host Communication Competence		0.10***	1.1
Psychological Adaptation		0.44***	1.1
Note: Sign. 0.001 '***' 0.01 '**' 0.05 '*' 0.1 '.'			
DV: Sociocultural Adaptation, Sample: Total Population			

As shown in **Table 2**, in Model 2, no multicollinearity was found, but a significant effect size was established for both host communication competence ($B = 0.10, p < 0.001$) and psychological adaptation ($B = 0.44, p < 0.001$). Therefore, both host communication competence and psychological adaptation are significantly related to sociocultural adaptation among international students, whereas the effect of psychological adaptation on sociocultural adaptation was found to be greater than the effect size of host communication competence. Considering regression, the cross-validation model did not improve the predictability, whereas it generated the identically same effect sizes for all variables with the same predictability. Therefore, linear regression Model 2 was considered the final model for the total population.

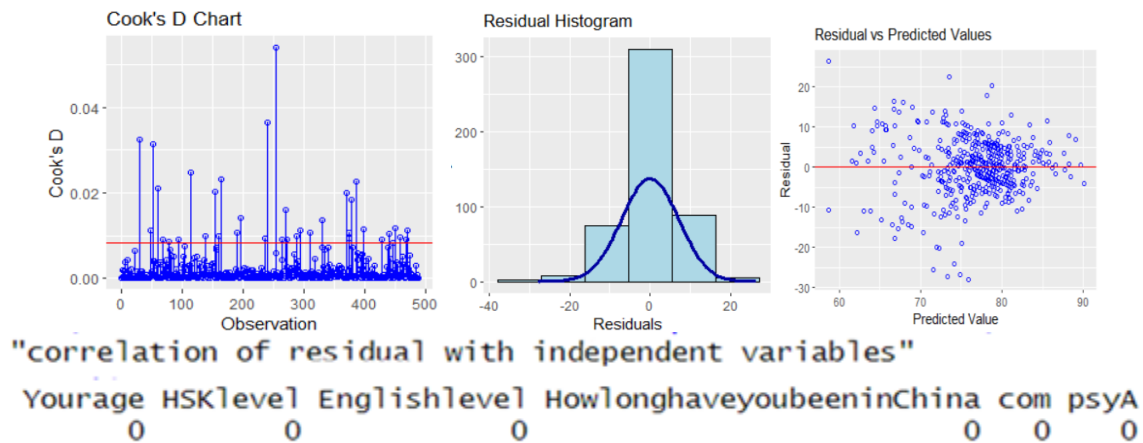


Figure 1: Tests for the specificity and robustness of the model

According to the residual-focused robustness and specificity test of the model in **Figure 1**, most of the residuals in Cook’s D chart are within the acceptable threshold. The correlation coefficients were 0 for all independent variables, which indicates that there was no relationship between the residuals and any independent variables of the model. The histogram also indicates that the residual is normally distributed, whereas in the predicted residual scatter plot, a marginal heteroscedastic pattern is found. The productivity of the linear regression model increases for higher values of sociocultural adaptation scores. This indicates that the current model is effective in predicting sociocultural adaptation for international students with moderate-to-high-level sociocultural adaptation compared to students with low sociocultural adaptation scores ($soca < 75$).

To determine the mediating effect of psychological adaptation, 3 regression models were developed. A model is used to determine the relationship between the independent variable host communication and the mediating variable psychological adaptation (model_IV_MV). The model that finds the effect size of both the independent variable and mediator on the dependent variable is found in the previous section (model_IV_MV_DV).

Table 3: Effect Size of the independent variable and mediator on the dependent variable

	model_IV_MV	model_IV_MV_DV
R-square	0.089	0.3441
Constant	62.558***	27.81***
Gender Male	1.250	-1.15
Age	-0.104	0.11
HSK Level (Students)	0.306	0.24

Native English Speaker (Student)	-0.701	0.61
English Level (Student)	-0.159	0.20
Total length of stay in China	0.214	-0.07
Studied Outside the Home Country Before	0.403	-0.57
Host Communication Competence	0.158***	0.10***
Psychological Adaptation	(DV)	0.44***

As shown in **Table 3**, if the compound effect size of host communication competence on sociocultural adaptation through psychological adaptation $(0.158 \times 0.10) = 0.016$, the direct effect size of host communication competence is less than 0.44. This indicates that psychological adaptation does not have a strong mediating role in the relationship between host communication competence and sociocultural adaptation. Therefore, psychological adaptation is a covariate of host communication competence, not a significant mediator.

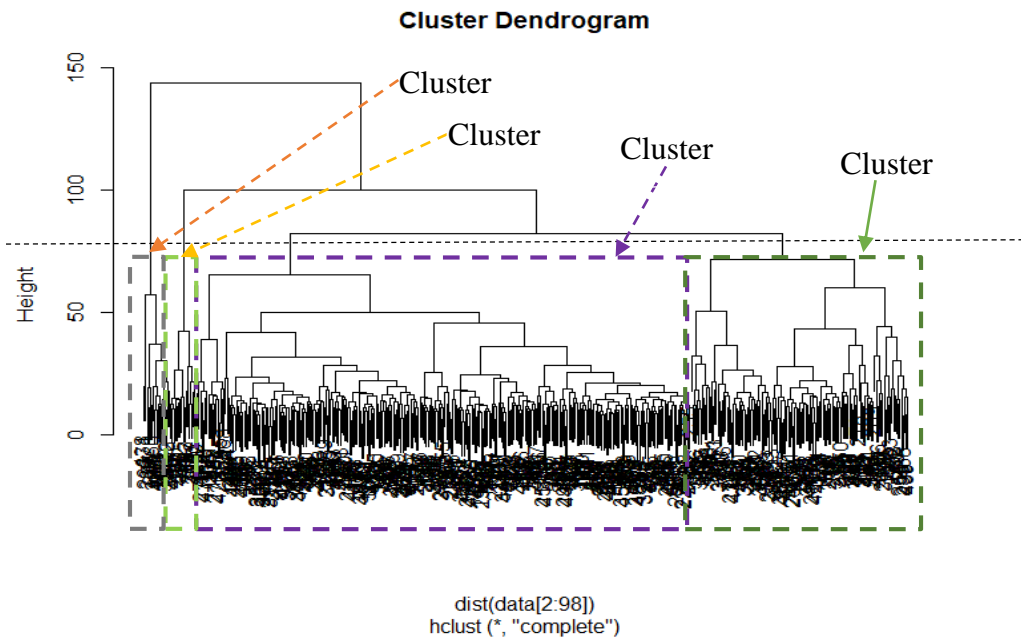


Figure 2: Dendrogram of Hierarchical Clustering

Hierarchical clustering was conducted considering the collective scores of psychological adaptation, sociocultural adaptation, and host communication competence along with their internal measures while including the background-related variables of the international students. Moreover, according to the cluster analysis, four clusters were identified across the population of international students (**Figure 2**).

Table 4: Demographic and background details of the clusters

		Cluster A		Cluster B		Cluster C		Cluster D	
		N	%	N	%	N	%	N	%
Gender	Male	98	70.5	16	94.1	225	71.4	12	70.6

	Female	41	29.5	1	5.9	90	28.6	5	29.4
Age	16-20	14	10.1	3	17.6	28	8.9	1	5.9
	21-25	51	36.7	5	29.4	119	37.8	7	41.2
	26-30	44	31.7	7	41.2	98	31.1	3	17.6
	31-40	26	18.7	2	11.8	59	18.7	5	29.4
	41-50	4	2.9	0	0	11	3.5	1	5.9
HSK level	Do not speak Chinese	21	15.1	7	41.2	47	14.9	4	23.5
	HSK1	9	6.5	1	5.9	19	6	0	0
	HSK2	2	1.5	0	0	12	3.8	0	0
	HSK3	55	39.6	6	35.3	114	36.2	6	35.3
	HSK4	38	27.3	3	17.6	78	24.8	3	17.6
	HSK5	14	10.1	0	0	45	14.3	4	23.5
Are you a native speaker of English	No	110	84.9	16	94.1	279	88.6	17	100
	Yes	21	15.1	1	5.9	36	11.4	0	0
English level	Not good	6	4.3	0	0	10	3.2	0	0
	General	21	15.1	3	17.6	37	11.7	2	11.8
	Good	53	38.1	6	35.3	148	47	10	58.8
	Very good	59	42.4	8	47.1	120	38.1	5	29.4
Total length of stay in China	3-6 months	26	18.7	8	47.1	69	21.9	4	23.5
	6 months- 2 years	6	4.3	1	5.9	20	6.3	2	11.8

	over 2 years	107	77	8	47.1	226	71.7	11	64.7
Studied outside your home country	No	116	83.5	13	76.5	255	81	14	82.4
	Yes	23	16.5	4	23.5	60	19	3	17.6
	Total	139	28.48	17	3.48	315	64.5	5	17

As shown in **Table 4**, four clusters, namely A, B, C, and D, represented 28.48%, 3.48%, 64.45%, and 3.48%, respectively, of the entire population. Cluster B consisted mostly of the male population (94.1%), whereas for all other clusters, the male proportion was approximately 71%. The male–female distributions in Cluster A and Cluster D were similar. In Cluster B, there were more very young (16 to 20 years) students (17.6%) than in the other clusters. Compared to other clusters, a larger proportion of Cluster B studied outside of their home country before coming to China (23.5%). The largest proportion of international students in Cluster B did not speak Chinese (41.2%). Populations A, C, and D had greater fluency in Chinese with HSK levels 3, 4, and 5, whereas Cluster D had the greatest fluency (HSK3 - HSK5 = 75%). In Cluster A, native English speakers are comparatively more common (15.1%), whereas in Cluster D, no one is a native English speaker. Clusters A and B have the highest level of fluency in English, where 42.4% and 47% of people, respectively, have a very good level of skill in English. Most of the population in Cluster A (77%) and Cluster C (71.7%) had been living in China for the past 2 years or more.

The international student populations in Cluster B (mean = 84.82) and Cluster C (mean 80.16) had higher levels of sociocultural adaptation than those in Clusters A and D (**Table 5**). Clusters B and C both have greater psychological adaptation and perceived host communication competence than Clusters A and D. The highest scores are found in Cluster B, followed by Cluster C. Cluster D has the lowest level of perceived host communication competence, psychological adaptation, and sociocultural adaptation.

Table 5: Host communication competence, psychological adaptation, and sociocultural adaptation of clusters

	Cluster A		Cluster B		Cluster C		Cluster D	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Host Communication Competence	120.04	11.91	160.2	5.53	131	11.36	62.1	8.74
Psychological Adaptation	71.24	9.04	86.76	8.23	84.7	6.16	71.1	9.04
Sociocultural Adaptation	67.77	9.29	84.82	7.49	80.16	5.42	65.9	9.79

It has been assumed that the relationships between different demographic factors and sociocultural adaptation, as well as between host communication competence and psychological adaptation, could differ. Regression analysis was performed for each cluster to evaluate the relationships between variables (**Table 6**). In the case of each subgroup of the clusters, the cross-validation failed to improve the accuracy (OLS residual = CV residual) and predictability (OLS R-square = CV R-square)

of the model; therefore, the OLS Model 2 for each hierarchical regression was chosen as the final model for each cluster.

Table 6: Regression results for baseline and cluster-specific international student-based models

	Baseline	Cluster A	Cluster B	Cluster C	Cluster D
R-square	0.3441	0.045	0.6936	0.1433	0.8761
F-stat	27.86***	0.68	2.26	5.67***	7.07**
Residual	0.20	1.43	-0.27	0.014	-0.15
RSE	7.13	9.388	5.866	5.093	4.872
Constant	27.81***	56.42***	-37.56	57.95***	-33.39
Gender Male	-1.15	-1.34	-3.86	-0.74	4.01
Age	0.11	0.75	-1.49	-0.39	3.04'
HSK Level	0.24	-0.47	1.49	0.20	5.46
Native English Speaker	0.61	2.17	NA	-0.22	NA
English Level	0.20	-0.65	2.86	0.15	3.28
Total length of stay in China	-0.07	-0.75	0.87	0.04	5.36'
Studied outside home country before	-0.57	-1.43	-5.59	-0.16	1.47
Host Communication Competence	0.10***	0.09	0.43	-0.03	-0.12
Psychological Adaptation	0.44***	0.09	0.53'	0.31***	0.70**
	Note: Sign. 0.001 '***' 0.01 '**' 0.05 '*' 0.1 ''				
	DV: Sociocultural Adaptation				

Table 6 indicates that the model for Cluster C is marginally similar to the baseline regression model concerning the significance of the overall model (F-stat $p < 0.05$) but not the variable-specific significance, and it does not show any relationship between host communication competence and sociocultural adaptation. Unlike the baseline model, Cluster D does not show a relationship between host communication competence and sociocultural adaptation, whereas for Cluster B, this relationship is marginally significant. The effect size and model significance of Cluster A were very different from those of the baseline model. This indicates that students within Cluster A have distinct psychological and sociocultural adaptation and perceived host communication competence patterns compared to those of the overall population.

The predictability of the linear regression model is highest for Cluster D, followed by Cluster B. For Cluster B, the chosen factors can predict 69.36% of the variability in sociocultural adaptation (R-square = 0.6936), whereas for Cluster D, they can predict 87.61% of the variability in sociocultural adaptation (R-square = 0.8761). The linear regression model has the lowest predictability and

highest residual for Cluster A, which indicates that the chosen regression model and variables are not relevant for predicting sociocultural adaptation of this population.

The strongest influence of the variables on sociocultural adaptation scores was found in Cluster D ($F = 7.07, p < 0.001$). For the population in Cluster D, host communication competence was not related to sociocultural adaptation, whereas psychological adaptation ($B = 0.70, p < 0.05$) had a significant positive relationship with sociocultural adaptation. With 90% confidence, the age ($B = 3.04, p < 0.1$) of the international students in Cluster D and their duration of living in China ($B = 5.36, p < 0.1$) were positively related to sociocultural adaptation.

In Cluster B, no demographic or background-related factors of the international students were significantly related to sociocultural adaptation within them. Similar to Cluster D, in Cluster B, only psychological adaptation ($B = 0.53, p < 0.1$) was related to sociocultural adaptation, whereas host communication competence was not related to it. Additionally, the significance of the effect size for psychological adaptation in Cluster B is lower than in Cluster D. In Cluster C, the model can predict 14.33% ($R^2 = 0.1433$) of the variability in sociocultural adaptation, which is lower than the predictability for Clusters B and D. However, the chosen variables can collectively influence sociocultural adaptation ($F = 5.67, p < 0.05$) in Cluster C. For this population, demographics, other background-related factors, and even host communication competence are not related to sociocultural adaptation. A significant effect was found for psychological adaptation ($B = 0.31, p < 0.001$), which is uniquely related to sociocultural adaptation.

The regression results showed that host communication competence is a significant factor that influences the sociocultural adaptation of international students, whereas higher host communication competence can significantly increase sociocultural adaptation. Strongest relationship can be found between host psychological adaptation and sociocultural adaptation, which is greater than the influence of host communication competence. International students with greater psychological adaptation have significantly more potential to have greater sociocultural adaptation in China. The findings of the study further signify the relationship between psychological adaptation and sociocultural adaptation by highlighting the larger effect size of psychological adaptation when compared to host communication competence. However, students with a lower ability to speak Chinese (Cluster B), the effect size of psychological adaptation was marginally significant.

Demographic factors such as age and economic conditions can influence the sociocultural adaptation of international students; therefore, in different clusters of students, different sociodemographic backgrounds can be found along with different levels of host communication competence and psychological effects on sociocultural adaptation. Most of the international students were in Cluster C, followed by Cluster A, whereas the percentages of students in Clusters B and D were lower.

Cluster A consisted of the mostly male population who were native speakers of English with higher fluency in English and who had lived in China for more than the past 2 years. Both Cluster A and Cluster D students had lower psychological and sociocultural adaptation than students in Cluster B and Cluster C. However, Cluster D students had the lowest level of psychological and sociocultural adaptation. Those in Cluster B are mostly very young, have studied in other countries outside their home country, with higher fluency in English and the lowest fluency in Chinese; they also have a high level of host communication competence along with high sociocultural and psychological adaptation. Furthermore, Cluster C is very similar to Cluster A, with a slightly lower level of fluency in English and a comparatively older age. Unlike Cluster A, Cluster C, which had lived in China for more than 2 years, had a greater level of psychological and sociocultural adaptation and host communication competence. Cluster D, who are fluent in Chinese, has the lowest level of competence and adaptation. The demographic background of Cluster D is similar to that of Cluster A, with higher fluency in

English and Chinese. Host communication competence was not a significant independent factor that influences sociocultural adaptation for any of these groups. The influence of psychological adaptation on sociocultural adaptation is greatest for Cluster C students, followed by Cluster D students, and lowest for Cluster B students. Since Cluster B has a mostly younger population of students, different demographic differences in effect size can be found in the Cluster B student group.

The model revealed no relationship between demographic factors and sociocultural adaptation. For all the remaining groups of students, no relationship was found between age and sociocultural adaptation. In the crude model, the present study argued this concept by showing no relationship between demographic variables and sociocultural adaptations. However, the significant effect size of age for specific student groups implies that age is not a generalized factor that can influence sociocultural adaptation, whereas there are other covariates that moderate the effect size of age.

It has been found that only for Cluster D does the duration of living in China increase host communication competence. However, in the crude model, the effect size of the length of stay was not significant. Considering that this study considered both length of stay and host communication competence, host communication competence might have neutralized the relationship between length of stay and sociocultural adaptation as a mediating factor.

CONCLUSION AND IMPLICATIONS

In the post-pandemic context of the Chinese education industry, both psychological adaptation and host communication competence are related to sociocultural adaptation among international students in China (Cao & Meng, 2022; Judith & Tan, 2023; Wang & Tananuraksakul, 2023), whereas age, gender, academic experience, and linguistic background-based differences within students can regulate these relationships. This study contradicts the finding that in addition to demographic and personal attributes, psychological adaptation has a greater effect on sociocultural adaptation than host communication competence, whereas existing studies have shown that demographic attributes deviate more than personal attributes (An & Chiang, 2015; Cao et al., 2023; Li, 2015; Wen et al., 2018). Furthermore, the study argues that for different groups of students, the interaction between sociocultural adaptations and potential underlying influencers can be different. The study also showed that psychological adaptation is not a mediating factor and is a covariate of host communication competence, which has a unique and independent relationship with sociocultural adaptation. It has been found that for older groups of students, a longer period of stay in China and greater age are related to greater sociocultural adaptation, whereas for younger groups of students with previous experience, host communication competence has no significant relationship with sociocultural adaptation. The findings of the study can help educational authorities develop support programs and campaigns for international students in the new normal situation after the COVID-19 pandemic.

Nevertheless, this study focuses on measurable experience-driven prediction, whereas there could be multilayered socio-psychological factors that are not included in the current scale of measurements. Additionally, the study assumed a linear relationship between psychosocial factors, demographic factors, and personal experience, whereas there could be a nonlinear relationship between them. There could be potential linear and nonlinear relationships among the independent variables and demographic and personal experiences that have not been examined adequately. In addition, interview-based open-ended data collection can also be performed in the future to improve the dynamics and external validity of host communication competence, psychological adaptation, and sociocultural adaptation-based measures.

These findings also call into question the significance of demographic characteristics, pointing to a contextual rather than direct influence on the adaptation trajectories of students. This has significant ramifications for support services and educational programs, emphasizing the necessity for tailored rather than universal strategies when working with various student demographics. Education or attention to the psychological and host communicative differences between clusters are needed.

In summary, customized, useful support systems that are better able to focus on the requirements of certain student groups within the larger international cohort in terms of adaptation are needed. Ongoing empirical investigations are needed to keep the theories and practices about this intricate subject up to date.

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