

The Mediating Effects of Acculturative Stress on Acculturation and University Adjustment of Chinese Students in Korea

¹Hyung Jung Min, ²Chang Seek Lee*, ³Don Reedy, ⁴Jeong Hyun Ham

¹Hanseo University, *elisamin@gmail.com*

²Hanseo University, *csl@hanseo.ac.kr*

³Hanseo University, *donreedy@outlook.com*

⁴Hanseo University, *hamapril@hanseo.ac.kr*

Abstract

This study aimed to investigate the mediating effects of acculturative stress on acculturation and university adjustment of 403 Chinese students in Korea. First, there was a fully mediating effect of acculturative stress in the relationship between integration and academic adjustment and between separation and academic adjustment. However, there was no mediating effect in the relationship between assimilation and marginalization and academic adjustment. Second, the results verifying the mediating effect of acculturative stress in the relationship between acculturation and social adjustment indicated that there was a significant partial effect in the relationship between integration and social adjustment; however, there was no effect in the relationship between assimilation, separation, marginalization and social adjustment. Finally, the relationship between assimilation and university life satisfaction and separation and university life satisfaction were fully mediated by acculturative stress; yet, separation and university life satisfaction was partially mediated. However, there was no mediating effect between marginalization and university life satisfaction.

Keywords: *Chinese Student, Mediating Effect, Acculturation, University Adjustment, Acculturative Stress*

1. Introduction

Today in the modern 21st century, people live in global villages in which barriers and borders in culture, economy and social issues are broken down, and the free flow of goods, technology and culture are allowed; hence, the living units of people are extended. During this age, the education market is also changing. University students as educational consumers are moving from their own countries to foreign countries and consequently, universities compete in order to attract the top talented as well as to prepare for the looming crisis of a decline in the school-aged population. In addition, governments are establishing policies to attract foreign students in order to prepare for an information society, where the excellent man of ability becomes the resources.

In 2005, foreign students in Korea numbered 23,000. This increased to a population of 84,000 in 2010, representing a growth rate of 35.5%. When compared to the total number of students enrolled in universities in Korea, the number of foreign students comprises a steadily rising ratio - 0.6% in 2005, 1.4% in 2007, 2.1% in 2009 and reaching 2.3% in 2010. The highest percentage of foreign students was from Asia, 72,000 (85.6%); the number of Chinese students in particular was 58,000 (68.9%) [8].

The Korea-China cultural exchange agreement served as a starting point for increasing the number of Chinese students studying in Korea; the Ministry of Education, Science and Technology reported in 1994 that Chinese students have since reached 76% of the total number of international students [5]. Foreign students in Korea, especially Chinese students, are attracting attention as consumers, accounting for a majority of the university's major education and training.

Today, China is ranked first as a trade partner of South Korea as well as in the ratio of Chinese students and immigrant women in Korea, leading to the active trade between the two countries. Although the Chinese are similar in appearance to Koreans, they have different cultural backgrounds

* Corresponding author

and are identified as members of different cultural groups. Thus, there exists a need to understand the culture, and above all, promote the next generation of youth to establish leading roles in the community through educational exchanges, cultural understanding and communication [10].

However, even though Chinese students are continuously increasing, qualitative research on Chinese students and fundamental policies regarding the adjustment of Chinese students are still in their infancy. In metropolitan universities, Chinese students can be helped at counseling centers or legal aid centers, but many universities in regional areas, which suffer from the lack of public finance, recruit Chinese students without deep consideration to supplement the fiscal deficit; hence, Chinese students suffer from a mismanagement and low support system. Consequently, many Chinese students enter into Korea with pro-Korean feeling, but return to China with an anti-Korean perspective. In order to solve this problem for Chinese students, it is important that universities in the regional areas of South Korea show interest in the university life of Chinese students as well as their acculturation in Korea.

Acculturation is defined as cultural changes resulting in a result of direct or continuous contact among those who have different cultural origins. The four types of acculturation have been defined as assimilation, integration, separation and marginalization [13] [3] [4]. Additionally, acculturative stress is a reduction in mental health and well-being of ethnic minorities that occurs during the process of adapting to a new culture [11]. Although acculturation and acculturative stress differ depending on the type, it appears that the correlation between the two is high. For example, according to the study of immigrant acculturation strategies, immigrants preferred integration from four types of acculturation and hence, the level of stress was low [15].

On the other hand, university life adjustment implies adjustment in class and examinations at the university. Also, within the university, it includes adjustment in social life, such as interpersonal relationships and extra-curricular activities, responding appropriately to psychological stress, and having attachment, curiosity and bond to the university and its life [1]. According to this definition, acculturation strategies and acculturative stress are closely related to university life adjustment. In particular, it is important that acculturative stress has common attributes in the relationship between these two variables. Therefore, there may exist the mediating effect of acculturative stress and hence, it needs to more clearly identify the mediating effects of acculturative stress in order to support Chinese students in their university life.

Therefore, this study was performed to investigate the mediating effects of acculturative stress in the relationship between acculturation and university life adjustment of Chinese students in Korea.

2. Methods

2.1 Subjects

This study was conducted among a total of 403 Chinese international students at “H” University in South Chungnam province, Korea. They included language student trainees and exchange students both at the undergraduate and graduate levels. The 403 Chinese students were comprised of 102 language trainees, 37 exchange students, 211 undergraduate students and 53 graduate students. 42.2% were men and 52.8% were women. 176 (43.7%) were under 20 to 22 years old and 107 (26.5%) were between 22 to 24 years old. In terms of residence period, 31% had been in Korea for less than 6 months, and 24.8% had been residing in Korea for 1-2 years. 48.4% lived on-campus and 39.7 percent lived off-campus.

Table 1. General characteristics of subjects

Section		Frequency	%
Gender	Male	170	42.2
	Female	233	57.8
	Total	403	100.0
Age in years	16 to 20	64	15.9
	20 to 22	176	43.7

	22 to 24	107	26.5
	24 to 26	56	13.9
	Total	403	100.0
Length of stay	Up to 6 months	125	31.0
	6 months to 1 year	72	17.9
	1 year to 2 years	100	24.8
	2 years to 3 years	64	15.9
	More than 3 years	42	10.4
	Total	403	100.0
Living arrangements	Dormitory	195	48.4
	Studio (monthly payments)	36	8.9
	Studio (yearly payments)	160	39.7
	Other	12	3.0
	Total	403	100.0

2.2 Measures

2.2.1 Acculturation

An acculturation scale of Barry [2] of the EAAM (the East Asian Acculturation Measure), which was adapted by Noh [12], was used for this study. This measure consists of four sub-areas, eight questions concerning assimilation, five questions regarding integration, 6 questions about separation and 9 questions concerning marginalization, for a total of 28 questions. For this study, Cronbach's α reliability of assimilation was .824, .655 for integration, .748 for separation and .812, for marginalization.

2.2.2 University adjustment

A scale of the Student Adaptation to University Questionnaire: SACQ, which was adapted by Baker and Siryk [1] and translated by Hyeon [6], was used for this study. The 55 questions of the scale are composed of four sub-areas. For this study, the scale was modified to fit the purposes of the study; the subscales include the following: academic adjustment concerning education and academic demands of the university, social adjustment associated with interpersonal relationship and social demands, individual adjustment that represents psychological and physical discomfort, and university life satisfaction, including the levels and quality of bonds to the university, and commitment to academic goals. A Likert-type five-point scale ranging from 'not at all (1 point)' to 'strongly agree (5 points)' was used. This study showed a reliability of academic adjustment of Cronbach's $\alpha = .759$, social adjustment of Cronbach's $\alpha = .589$, individual adjustment of Cronbach's $\alpha = .025$, and university life satisfaction of Cronbach's $\alpha = .722$. Individual adjustment scored a low reliability and was excluded from the analysis.

2.2.3 Acculturative stress

The Acculturative Stress Scale for International Students, which was developed by Sandhu & Asrabadi [14] and translated and adapted by Lee [9], was used to measure the stress of international students for this study. The scale included and measured a total of 36 questions: the perceived sense of discrimination, including prejudice and discrimination; homesickness, missing those at home or in their home country; perceived hatred feeling from others; fear, including problem of safety; culture shock, representing inconvenience of adapting to a new culture; apologetic and guilty feelings of leaving

family and friends in their home country; linguistic differences; feelings of 'inferiority' and feelings of social isolation. The scale was conducted by a 5-point Likert scale, with a higher score indicating a higher level of acculturative stress. In this study, the reliability of Cronbach's α was .921.

2.3 Data analysis

To verify the general characteristics of Chinese students, a frequency analysis was used along with the reliability of internal consistency Cronbach's α . To find out the correlation between variables, a correlation analysis was utilized. To confirm the mediating effects, a hierarchical multiple regression analysis was used, following Baron and Kenny's (1986) procedures of verifying mediating effects; then to testify the significance of the mediating effects, Sobel's test was used.

3. Results

Descriptive statistics of the acculturation of Chinese students showed that separation was the highest, with an average of 2.6236, followed by integration with 2.5787, marginalization with 2.2710, and assimilation with 2.2707. University life adjustment was at the highest level, followed by academic adjustment and then social adjustment, in that order. Additionally, acculturative stress ranked slightly below the middle, with a score of 2.4013.

As a result of correlation, some of the sub-areas of acculturation were negatively correlated with university life adjustment. Further, all of the sub-areas of acculturation and acculturative stress showed a significant positive correlation. Additionally, social adjustment and university life satisfaction among university life adjustment were negatively correlated with acculturative stress.

Table 2. Mean, standard deviation, correlation coefficient of acculturation, university adjustment, and acculturative stress

	1	2	3	4	5	6	7	8
Mean	2.2707	2.5787	2.6236	2.2710	3.1548	3.0737	3.3243	2.4013
SD	.70958	.69586	.77245	.66304	.41465	.42219	.41841	.52360
1. Assimilation	1							
2. Integration	.444**	1						
3. Separation	.090	.531**	1					
4. Marginalization	.685**	.379**	.210**	1				
5. Academic adjustment	-.219**	-.053	-.124*	-.286**	1			
6. Social adjustment	-.053	.040	-.044	-.122*	.691**	1		
7. University life satisfaction	-.382**	-.106*	-.180**	-.488**	.683**	.551**	1	
8. Acculturative stress	.800**	.732**	.563**	.830**	-.254**	-.074	-.429**	1

* $p < .05$, ** $p < .01$

Baron and Kenny's procedure was used to verify the mediating effects of acculturative stress between acculturation and university life adjustment. The procedure was as follows: Step 1: in the first regression analysis, the independent variable (acculturation) should significantly affect the parameter variable (acculturative stress). Step 2: in the second regression analysis, the independent variable should significantly affect the dependent variable. Step 3: in the third regression analysis, the parameter should significantly affect the dependent variable, and the β values of the independent variable in step 2 must be less than the value of β in step 2. Further, it is determined that in step 3, if the independent variable does not significantly affect the dependent variable, the mediating effect is perfect; however, if

the independent variable significantly affects the dependent variable, the mediating effect is partial.

A hierarchical regression analysis on academic adjustment is shown in Table 3. The perfect mediating effects of acculturative stress were verified in the relationship between assimilation and separation of the sub-areas of acculturation and academic adjustment. However, the mediating effects of acculturative stress were not verified in the relationship between integration and marginalization of the sub-areas of acculturation and academic adjustment.

Table 3. Hierarchical regression analysis on academic adjustment

IV	DV	B	β	t	R ²	F	Sobel's test
Assimilation	Acculturative stress	.590	.800	26.707***	.639	713.240	
Assimilation	Academic adjustment	-.128	-.219	-4.493***	.048	20.183	-2.689**
Assimilation Acculturative stress	Academic adjustment	-.026 -.173	-.045 -.218	-.559 -2.696*	.065	13.884	
Integration	Acculturative stress	.551	.732	21.501***	.535	462.289	
Integration	Academic adjustment	-.032	-.053	-1.061	.003	1.125	
Integration Acculturative stress	Academic adjustment	.169 -.367	.284 -.461	4.083*** -6.634***	.102	22.627	
Separation	Acculturative stress	.381	.563	13.629***	.317	185.753	
Separation	Academic adjustment	-.067	-.124	-2.498**	.015	6.240	-4.383***
Separation Acculturative stress	Academic adjustment	.014 -.213	.025 -.268	.433 -4.591***	.065	13.817	
Marginalization	Acculturative stress	.655	.830	29.792***	.689	887.580	
Marginalization	Academic adjustment	-.179	-.286	-5.954***	.082	35.454	
Marginalization Acculturative stress	Academic adjustment	-.150 -.044	-.240 -.055	-2.800** -.643	.083	17.908	

p<.01, *p<.001

Second, the hierarchical regression analysis on social adjustment is shown in table 4. The partial mediating effect of acculturative stress was verified in the relationship between integration of the sub-areas of acculturation and social adjustment. However, the mediating effects of acculturative stress were not verified in the relationship between assimilation, separation and marginalization of the sub-areas of acculturation and social adjustment.

Table 4. Hierarchical regression analysis on social adjustment

IV	DV	B	β	t	R ²	F	Sobel's test
Assimilation	Acculturative stress	.590	.800	20.173***	.640	713.240	
Assimilation	Social adjustment	-.031	-.053	-1.059	.003	1.121	
Assimilation acculturative stress	Social adjustment	.011 -.072	.018 -.088	.214 -1.061	.006	1.123	
Integration	Acculturative stress	.551	.732	21.501***	.535	462.289	-3.003***
Integration	Social adjustment	.024	.040	.796	.002	.633	
Integration acculturative stress	Social adjustment	.122 -.179	.201 -.221	2.779** -3.053**	.024	4.983	
Separation	Acculturative stress	.381	.563	18.304***	.317	185.753	
Separation	Social adjustment	-.024	-.044	-.889	.002	.790	
Separation acculturative stress	Social adjustment	-.002 -.058	-.005 -.072	-.075 -1.190	.006	1.103	
Marginalization	Acculturative stress	.655	.830	29.792***	.689	887.580	
Marginalization	Social adjustment	-.078	-.122	-2.449*	.015	34	
Marginalization acculturative stress	Social adjustment	-.122 .069	-.192 .085	-2.164* .957	.017	3.455	

***p<.001

Finally, the hierarchical regression analysis on university life satisfaction is shown in table 5. The perfect mediating effect of acculturative stress was verified in the relationship between assimilation and separation of the sub-areas of acculturation and university life satisfaction, and the partial mediating effect of acculturative stress was verified in the relationship between integration of the sub-areas of acculturation and university life satisfaction. However, the mediating effects of acculturative stress were not verified in the relationship between marginalization of the sub-areas of acculturation and university life satisfaction.

Table 5. Hierarchical regression analysis on university life satisfaction

IV	DV	B	β	t	R ²	F	Sobel's test
Assimilation	Acculturative stress	.590	.800	26.707***	.640	713.240	
Assimilation	University life satisfaction	-.225	-.382	-8.253***	.146	68.107	-4.533***
Assimilation Acculturative stress	University life satisfaction	-.063 -.276	-.106 -.344	-1.413 -4.573***	.188	46.207	
Integration	Acculturative stress	.551	.732	21.501***	.535	462.289	
Integration	University life satisfaction	-.064	-.106	-2.119*	.011	4.492	-10.520***
Integration Acculturative stress	University life satisfaction	.269 -.606	.446 -.755	7.151*** -12.105***	.277	76.331	
Separation	Acculturative stress	.381	.563	13.629***	.317	185.753	
Separation	University life satisfaction	-.098	-.180	-3.653***	.032	13.341	-7.332***
Separation Acculturative stress	University life satisfaction	.047 -.383	.086 -.477	1.586 -8.784***	.189	46.524	
Marginalization	Acculturative stress	.655	.830	29.792***	.689	887.580	
Marginalization	University life satisfaction	-.309	-.488	-11.171***	.238	124.783	
Marginalization Acculturative stress	University life satisfaction	-.267 -.064	-.422 -.080	-5.410*** -1.024	.240	62.923	

***p<.001

4. Discussion

The higher order of the acculturation mean of Chinese students was in the order of separation, integration, marginalization and assimilation. This result is different from the study on immigrant women's acculturation by Kim and associates [7], which revealed that the higher order was in the order of integration, assimilation, separation and marginalization. The subjects of this study are students who normally stay for short-term studies in Korea, compared to immigrant women who pay attention to social adjustment.

In addition, the level of university life adjustment of Chinese students was above the middle, and the degree of acculturative stress of Chinese students appears as below average, in that they do not experience a serious amount of stress adapting to university life as expected. These results indicate that they enjoyed university life in Korea. This could be judged from the similarities in culture and university between South Korea and China.

A correlation analysis of some of the variables of the sub-areas of acculturation and university life

showed a negative correlation; acculturation and acculturative stress were correlated significantly and were also positive. Also, university life adjustment and acculturative stress showed a significant negative correlation. The result, that types of acculturation and acculturative stress have a positive correlation, indicates that acculturation itself acts on inducing acculturative stress.

Finally, as the result of the mediating effects, acculturative stress was mediated in the relationship between assimilation, separation and academic adjustment, between integration and social adjustment, and between assimilation, integration, separation and university life satisfaction. These results convey that acculturative stress mediates the selective relationship between acculturation and university life adjustment, not all the relationships between them. Thus, it can be proposed that more and various perspectives are necessary to investigate university life adjustment of Chinese students.

For further study, there were no mediating effects of acculturative stress in the relationship between integration, marginalization and academic adjustment, between assimilation, separation, marginalization and social adjustment, and between marginalization and university life satisfaction. The Future study should focus on investigating the causes of no mediating effects of acculturative stress. Also, in global villages, more attention to foreign students in Korea should be paid in the academic and national dimension.

5. References

- [1] Baker, R. W., Siryk, B., "Student Adaptation to College Questionnaire Manual", LA: Western Psychological Services, 1989.
- [2] Barry, D. T., "Development of a New Scale for Measuring Acculturation: The East Asian Acculturation Measure (EAAM)", *Journal of Immigrant Health*, vol. 3, no. 4, pp.193-197, 2001.
- [3] Berry, J. W., "Psychology of Acculturation: Understanding Individuals Moving between Culture", In R. Brislin (Ed.), *Applied Cross-cultural Psychology*, pp. 232-253, 1990.
- [4] Berry, J. W., "Immigration, Acculturation and Adaptation", *Applied Psychology*, vol. 46, pp. 5-68, 1997.
- [5] Choi, J. Y., "Chinese Students' Perception of Korea and their Nationalism in Sino-Korean Relations", *Korean Journal of International Relations*, Korean Association of International Relations, vol. 51, no. 1, pp. 217-240, 2011.
- [6] Hyun, J. W., "The Effect of Perfectionism and Evaluative Threat on the Performance of Task", *KJSP*, vol.1992, pp. 463-472, 1992.
- [7] Kim, G. H., Kwon, S. J., Park, E. J., "Roles of University and Community on Acculturation of International Marriage in Korea", *Journal of Institute for Social Sciences*, Institute for Social Sciences Chungnam National University, vol.18 no.2, pp. 1-25, 2007.
- [8] Kim, W. J., *A Comparative Study of Chinese Foreign Student Attraction Strategy of Korea and Japan*, Korea International Trade Association, Korea, 2011.
- [9] Lee, S. J., "The Relationship between Acculturative Stress, Beliefs System and Social Support of Foreign Students", Unpublished Mater's Dissertation, Yonsei University, 1995.
- [10] Lim, C. H., "Acculturative Stresses and Adjustment Elements of Chinese Students' Studying in Korea", *Journal of Korean Living Science Association*, Korean Living Science Association, vol. 18 no. 1, pp.93-112, 2009.
- [11] Lueck, K., Wilson, M., "Acculturative Stress in Asian Immigrants: The Impact of Social and Linguistic Factors", *International Journal of Intercultural Relations*, *IJIR*, vol. 34, pp. 47-57, 2010.
- [12] Noh, H. N., "A Study on Acculturative Stress of the Chinese women who got married to Korean men and settled down in Korea: Focusing on the Acculturation Patterns and Social Support Perceived by Women", Unpublished Master's Dissertation, Ewha Women's University, 2007.
- [13] Redfield, R., Lint O. R., Herkovits, M., "Insanity, Memorandum on the Study of Acculturation. *American Anthropologist*, vol. 49, pp. 701-708. 1936.
- [14] Sandhu, D. S., Asrabadi, B. R., "Development of Acculturative Stress Scale for International Students: Preliminary Findings", *Psychological Reports*, vol. 75, pp. 435-448, 1994.
- [15] Woo, B. N., "The Culture Adaptation Research on the Actual Condition of Chungnam Women Immigrant for Marriage and Development of Cultural Education Program", *Chungcheongnamdo Institute for Female Policy Development*, Korea, 2008.