Anju Mehta and Nimisha Beri

IMPACT OF INTERVENTION ON ACCULTURATIVE STRESS AMONG INTERNATIONAL STUDENTS

During cross-cultural living individual has to make physical, psychological, socio- cultural adjustment etc. In case of students these adjustments may be for adapting new academic life, economic independence, sharing one's life with strangers, new language & climate etc."This period of adjustment, during which immigrants understand and incorporate the values, beliefs, and behaviors of their new host culture into the context of the values, beliefs, and behaviors of their culture of origin, is known as the process of acculturation." (Berry, 1980). The stress that is associated with cross cultural transition is called acculturative stress. The objective of present study was to find the level of acculturative stress among international students in India and to investigate the impact of intervention program on the level of acculturative stress among international students. A sample of 159 male and female international undergraduate students was taken from a university of Chandigarh. An Intervention program (approx. 24 hours) was prepared and validated. Students having high level of acculturative stress (M=216.65, SD=8.547, SEM= 0.678) were taken and two groups -control group and experimental group were formed. Intervention was given to experimental group under natural setting .One way ANOVA revealed that there was significant difference in the level of acculturative stress between the groups. The group given intervention showed positive results.

Cross-cultural living is exciting but challenging also because individual has to make physical, psychological, socio- cultural adjustment etc. In case of students these adjustments could be social, intercultural communication or adapting new climate ,education norms etc. "This period of adjustment, during which immigrants understand and incorporate the values, beliefs, and behaviors of their new culture into the context of the values, beliefs, and behaviors of their culture of origin, is known as the process of acculturation." (Berry, 1980).While making these adjustments international students have to face pressure and worries caused by cultural differences. Some students may be able to manage it but other may experience a certain amount of stress. This stress that is associated with cross cultural transition is called

---

MRS. ANJU MEHTA, Research Scholar and Nimisha Beri, Associate professor, Lovely Professional University, Phagwara

acculturative stress and is defined as a "reduction in health status of individuals who have to struggle to adapt to a new culture psychologically and socially (Berry, 1970)." The stress arises due to differences in social customs, norms, values, education standards, politics, etc. between the host culture and the original culture.

The immigrant students though bring diversity to a nation but they encounter numerous challenges as they acculturate and integrate to a new culture and environment. Thus institute must made significant efforts to facilitate acculturation because if these challenges are not addressed in appropriate manner, the foreign students will experience stress and if stressors are not managed well, it will have negative effects like anxiety and depression (Yeh, 2010). Dyal & Dyal (1981) emphasized on parent and teacher's cultural sensitivity training. Francisco *et al.*, (1987) revealed individualistic and social network to acculturate well, Scarlett (1991) investigated the effects of an intervention program by using three delivery methods- giving information , support, and a combination of these two and indicated that the intervention program was beneficial for international students. Thomas (2006) asserted that if school personnel fail to address immigrant children's traumas and social adjustment it will lead to acculturative stress. Metz (2005) found that an intercultural training before, during and even after the admission could be beneficial in reducing the negative outcomes of culture shock. Berry& Sabatier (2010) found that those who involved both in their heritage culture and new one (the integration) were most adjusted in school and community than those who were minimally involved with either culture (the marginalization). Wilson (2012) also indicated that acculturation strategies played significant role in the adjustments in new environment. Kim *et al.* (2012) suggested three main stress-coping strategies - engagement in meaningful activities; social support; and positive emotion. Yakunina *et al.* (2013) recommended that international students can rely on their personal and multicultural strengths to alleviate their acculturative stress and achieve positive adjustment.

Thus institutions should take initiative to resolve difficulties faced by international students while adjusting to new culture. If institution will take some steps to help students in adjustment to new culture, it will decrease the effects of acculturation. If they are left to fend for themselves, it may increase the negative effects of acculturation and thus make adjustments more difficult and stressful. So in order to avoid the feeling of being left alone, the institution should offer social and professional support and regular communication to students.

Justification of the study

In recent times, India has become one of the important centers of education for international students. Many students from different parts of world are now enrolled in Indian universities and colleges. There are

approximately more than 35,000 students migrated from different countries to India for education. Minority representation in higher education institutions is essential and plays a vital role in social and economic development. The international students' presence in our institutions will help to promote our culture & international understanding among these students. Despite a large number of international students in India, there has been limited research on the acculturative stress and the adjustment problems of international students in India. The investigator found a little work done on adjustment problems of international students in India (Mishra *et al.*, 1996, 2002; Ayoob *et al.*, 2011). Hardly there was any study that has developed intervention program for acculturative stress to promote optimal adjustment among international students immigrating in India. Thus there was a need to perform a study focused on evaluate the impact of intervention program for acculturative stress which help the international students to acculturate well in the new environment and promote adjustments.

The purpose of this study was to evaluate the impact of intervention program on the level of acculturative stress among international students and to help them to stay and adopt the new land as their future homeland. This intervention program might be beneficial for teachers, university advisors and officials who are concerned with planning and implementation of educational strategies for international students, to identify barriers that prevent cultural adjustment. If professionals are more aware of the coping strategies, they are more likely to provide effective coping resources for international students who are experiencing problems because of adaptation difficulties.

Objectives

- To study the level of acculturative stress among international students.
- To evaluate the impact of intervention on the post treatment level of acculturative stress among international students.

Hypotheses

- There exists significant level of acculturative stress among international students.
- There exists significant difference in the level of acculturative stress among international students before and after intervention program.

Method

For the study purposive sample of 159 undergraduate international students of a university of union territory Chandigarh were taken. Name of the university was not disclosed as data was collected after giving assurance that it will not be disclosed.

Sampling Frame

Selection criterion of students was:

- International students enrolled currently in minimum 2 years duration of course were taken.

- International students who had completed one month of enrolment were taken.

- Undergraduate **i**nternational students were taken only.

Intervention program (of approx. 24 hours) was prepared and validated by the researcher. The face validity and content validity (0.7) was calculated. Intervention program was prepared on the basis of predictors discussed by various researchers like Sandhu & Asrabadi (1994) in their study stated 7 factors that contribute to acculturative stress -perceived discrimination ,homesickness ,perceived hate, fear ,cultural shock , guilt etc. Toyokawa & Toyokawa (2002) found academic life , psychological autonomy, economic independence etc. are the predictors of stress. Yeh and Inose (2003) found lack of adequate social connectedness and social support are causes of acculturative stress. Ying (2005) found five stressors i.e. physical environment (climate, setting to unfamiliar environment and safety), biological factors (food, illness), social factors (homesickness, loneliness, estrangement) cultural factors (difference in cultural values, racial discrimination) and functional factors (academic, transportation problems& financial difficulties).The objectives of intervention were to make the students aware that cultural stress is a normal reaction to life. To develop a sense of belongingness and to raise the awareness among students that cultural diversity is healthy one by understanding individual differences and group diversity.
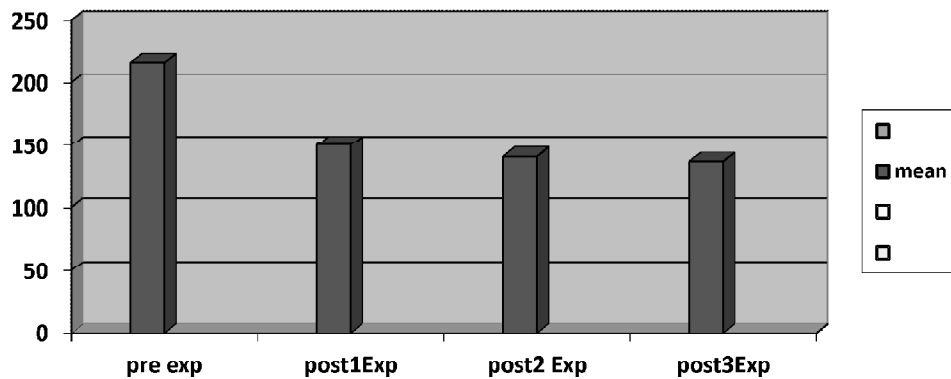
From sample of 159 international students ,those having high level of acculturative stress and who willingly agreed to participate in intervention program were placed in the intervention group and those students who were not agree to participate in intervention were subsequently placed into the control group .Researcher tried to make both the groups equal in number. Attempt was made to study the participants in a natural setting. The single experimental group was then involved in intervention program. After intervention same standardized instrument was then used to identify a post-treatment level of acculturative stress. Scores on the pre- and post -tests were then analyzed in order to draw conclusions about the effectiveness of intervention program. Level of acculturative stress was compared in groups thrice after intervention:-Ist post test-immediately after intervention, IInd post test after 2 months of intervention, IIIrd post test after 3 months of intervention. As data was collected from the university after giving assurance that name of the university will not be disclosed.

Results

Before the intervention the level of acculturative stress of 159 international undergraduates was measured and it was treated as pre treatment score. For this acculturative scale was developed and validated. It was evident that mean scores of sample of international students was 216.65, standard deviation 8.547 and standard error of mean 0.678. Thus it was clear that there was statistically significant mean score of level of acculturative stress among international students.

The data revealed that 18.24% of the total sample reported in low level acculturative stress and 53.45%of total sample reported in average level of acculturative stress. On the other hand , 28.30%of total sample reported high level of acculturative stress .The overall results indicated that high percentage of sample revealed average level of acculturative stress ,followed by high level of acculturative stress and low level of acculturative stress.
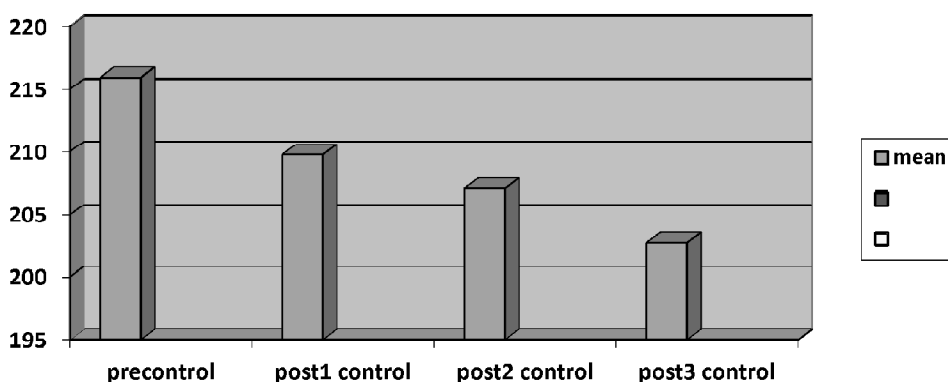
It was evident from table 2 that mean scores of experimental and control groups before treatment were 215.86 and 215.91 and standard deviation 8.203 and 8.186 and standard error of mean 1.237 and 1.234 respectively. So it was evident that mean score of both the groups before intervention were same. The p value found to be .979 which was greater than á value 0. 05 .So the variability in the two groups was not significantly different. There was no statistically significant difference between two groups (t $_{86}$ = - .026, p > .05) i.e. experimental and control group before intervention.

Graph 3.1

Descriptive Statistics table 3 and corresponding graph showed the mean, SD and standard error of mean of experimental groups at three stages-immediately after the intervention (Post1) ,after one month of intervention (Post 2) and after 3 months of intervention (Post 3) .The number of participants in each group (N) was 44. Thus it was evident from table that there was statistically significant mean difference between experimental groups after

immediately, one month and after 3 months of intervention. Table 4 and 4.1 revealed that there was a statistically significant difference between groups as determined by one-way ANOVA (F (3,172) = 1388.178, p = .000)

Graph 5.1

Descriptive Statistics table 5 and graph 5.1 showed the mean, SD and standard error of mean of control groups at three stages-immediately after the intervention (post1) ,after one month of intervention (post 2) ,after 3 months (post 3). The number of participants in each group (N) was 44. Thus it was evident from table that there was no statistically significant mean difference between control groups at different stages - pre, immediately, one month and after 3 months (of intervention given to experimental group). It was evident from table 6 and 6.1 that there was a statistically significant difference between groups as determined by one-way ANOVA (F (3,172) = 19.346.178, p = .070).

From the table 7 it was revealed that there was statistically significant difference between the mean score of acculturative stress between the post experimental and post control groups (after 3 months). The p value found to be .001, .000 and 0.002 (t 86, p < .05).

Thus it was evident from the table 7 that there was statistically significant difference between the mean score of post experimental and control group (immediately,, after one month and after three months of intervention).So our second hypothesis **"There exists significant effect of the intervention program on international student's post treatment level of acculturative stress"** was accepted.

Discussion

Our study identified a notable difference after intervention in mean score of acculturative stress. International students struggle with homesickness, and isolation from family, friends, new food & language and

considerable pressure to perform well in new academic and cultural environment. (Mishra *et al*, 2003, Constantine *et al*, 2004; Martiza *et al*., 2013; Nicholson,2013). The result of the study supported the findings of -(Kim ,2012; Thaker,2013; Yakunina, 2013) that intervention program helped the immigrant students to acculturate well and adjust them in the new host culture. To conclude, the current study's findings suggested that the significance of social support given by an institution help in adjustment and reduce the acculturative stress experienced by students. Thus findings of the study revealed that there is a need of culture-specific services provided by university to students and also a need of cultural sensitivity and awareness while working with these populations. Institution should develop activities and programs that include and respect the cultural and linguistic values of diverse student. Faculty and students should be educated on the cultures and values of other people. They should create programs and activities that focused on the strengths of students. If needed they should utilize translators and interpreters .Incorporation of activities and programs that appreciate differences (i.e. cultural festivities, food fest etc) should be organized. Although the findings of this study add to the existing literature but there were some delimitations. The study employed a purposive sample of foreign students studying in one university so results of the study can not be generalized to other region. Furthermore, the sample size of the study was relatively small. Acculturative stress may vary with the support given by an institution .Thus results of one institution cannot be generalized to other institution. The results can not be generalized to low stress students. Further investigation could be conducted to know whether this is a generalized difficulty among international students to fit into host culture or a reflection of the campus where the present study took place.

Table 1
Demographic characteristics of sample

Gender	Male (N=115)	72.32%
	Female (N=44)	27.66%
Age group	18-19 years (N=65)	M- 40.88%
	(N=22)	F- 13.83%
	20-21 year (N=44)	M- 27.67%
	(N=28)	F - 1 7.61%
Stream	Management (N=49)	M- 30.81%
	(N=17)	F- 10.69%
	Science (N=64)	M- 40.25%
	(N=14)	F- 8. 80%
	Humanities (N=9)	M -5.66%
	(N=6)	F- 3.77%
Family income	->50,000-=1,00000 (N=25)	M- 15.72%
	(N=12)	F- 7.54%
	>1,00000 (N=96)	M- 60.7%
	(N=26)	F- 16.35%
Marital Status	Single	100%
Country	Bhutan (N=22)	M- 13.83%
	(N=10)	F-6.28%
	Nepal (N=25)	M-15.72%
	(N=5)	F-3.14%
	Afghanistan (N=32)	M-20.12%
	N=12	F-7.54%
	Iran (N=18) N=3	M-11.32%
		F- 1.88%
	Bangladesh (N=13)	M-8.17%
	(N=6)	F-3.77%
	Thailand (N=3)	M-nil
		F-1.886%
	Canada (N=2)	M-1.257%
	(N=3)	F-1.886%
	Ethiopia (N=2)	M-1.257%
	(N=1)	F-0.628%
	Iraq (N=2)	M-1.257%

Table 1
Described Percentage wise distribution of total sample at different
levels of acculturative stress

S.no.	Levels of acculturative stress	N	% age
1	Low level of acculturative stress	29	18.24%
2	Average level of acculturative stress	85	53.45%
3	High level of acculturative stress	45	28.30%
Total		159	

Table 2
Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
SCORE	Pre Exp.	44	215.86	8.203	1.237
	Pre Control	44	215.91	8.186	1.234

Table 3

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Pre Exp.	44	215.86	8.203	1.237	213.37	218.36	200	234
Post-1 Exp.	44	150.09	7.303	1.101	147.87	152.31	132	169
Post-2 Exp.	44	141.11	5.388	.812	139.48	142.75	132	155
Post-3 Exp.	44	137.18	4.824	.727	135.72	138.65	130	152
Total	176	161.06	32.730	2.467	156.19	165.93	130	234

Table 4
Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
4.627	3	172	.004

Table 4.1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	180038.517	3	60012.839	1388.178	.000
Within Groups	7435.795	172	43.231		
Total	187474.313	175			

Table 5

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
					Lower Bound	Upper Bound		
Pre Control	44	215.91	8.186	1.234	213.42	218.40	200	234
Post-1 Control	44	209.75	9.359	1.411	206.90	212.60	193	232
Post-2 Control	44	207.02	8.754	1.320	204.36	209.68	191	228
Post-3 Control	44	202.75	6.731	1.015	200.70	204.80	187	219
Total	176	208.86	9.533	.719	207.44	210.28	187	234

Table 6
Test of Homogeneity of Variances

Levene Statistic	*df1*	*df2*	*Sig.*
1.625	3	172	.185

Table 6.1
ANOVA

Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4012.335	3	1337.445	19.346	.070
Within Groups	11891.114	172	69.134		
Total	15903.449	175			

Table 7
Independent Samples Test

| | Levene's Test for Equality of Variances | | -test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post 1	3.122	.081	-33.335	86	.001	-59.659	1.790	-63.217	-56.101
Post2	10.411	.002	-42.532	86	.000	-65.909	1.550	-68.990	-62.829
Post 3	4.343	.040	-52.521	86	0.002	-65.568	1.248	-68.050	-63.086

REFERENCE

Ayoob, Mohammad. Singh, Tara., Jan, Maryam

2011   "Length of stay, acculturative stress, and health among Kashmiri students in central India Pakistan",*Journal of Social and Clinical Psychology*, 9, 11-15.

Azizah, Rajab. Hamidah, Abdul. Rahman., Siti, Aisyah. Panatik, & Nur, Syazwin. Mansor

2014   "Acculturative stress among International students", *Journal of Economics, Business and Management,* 2(4), 262-268.

Berry, J. W.

1970   "Marginality, stress and ethnic identification in an acculturated aboriginal community" , *Journal of Cross-Cultural Psychology*, 1(3), 239–252.

Berry, J. W.

1980   "Acculturation as varieties of adaptation", In A. M. Padilla (Ed*.),* *Acculturation: Theory, models and some new findings* (pp. 9–25). Boulder: West view Press.

Berry, J. W., & Sabatier, C.

2010   "Acculturation, discrimination and adaptation among second generation immigrant youth in Montreal and Paris", *International Journal of Intercultural Relations*, 34, 191-207. doi:10.1016/j.ijintrel.2009.11.007.

Constantine, M.G., Okazaki, and S., Utsey, S.O.

2004   "Self-concealment, social self-efficacy, acculturative stress, and depression in African, Asian, and Latin American international college students", *American Journal of Orthopsychiatry*, 74, 230–241.

Dyal A James, Dyal Y Ruth

1981   "Acculturation, stress and coping: Some implications for research and education", *International Journal of Intercultural Relations*, 5(4),301-328.

Francisco, F., Marsiglia, Stephen., Kulis, Tanya. Nieri.

2009   "Perceived Ethnic Discrimination versus Acculturation Stress: Influences on Substance Use among Latino Youth in the Southwest", *Journal of Health Social Behaviour,* 50(4), 443.

Kim, U.

2012   "Indigenous, cultural, and cross-cultural psychology: a theoretical, conceptual, and epistemological analysis", *Asian Journal of Social Psychology*, 3(3), 265–287.

Maritza, Concha., Mariana, Sanchez.,&Marioe, la. Rosa

2011   "A longitudinal study of social capital and acculturation-related stress among recent Latino immigrants in South Florida. Hispanic", *Journal of Behavioral Sciences*, 35(4), 217-225.

Metz, E.,& Youniss, J.

2005   "Longitudinal gains in civic development through school-based required service," *Political Psychology*, 26, 413-437. doi:10.1111/j.1467-9221.2005.00424.

Mishra, R.C., Sinha, D., & Berry, J.W.

1996   *Ecology ,acculturation and psychological adaptation: A study of Adivasis in Bihar*. New Delhi: Sage.

Mishra, R. C., & Chaubey, A. C.

2003   "Acculturation attitudes of Kharwar and Agaria tribal groups", *Psychology and Developing Societies*, 14, 201-220.

Nasirudeen, A.M.A., Koh, Wat. Neo. Josephine., Lau, Lee. Chin. Adeline., Lim, Lay. Seng., How, Ai. Ling., & Ngee, Ann.

2014   "Acculturative stress among Asian international students in Singapore", *Journal of International Students*, 4(4).

Nicholson, L.M.

2013   "Gender differences in acculturation, stress, and salivary cortisol response among former Soviet immigrants", *Journal of Immigrant Minor Health*, 15 (3), 540-552.

Sandhu D.S, Asrabadi B.R.

1994   "Development of an acculturative stress scale for international students: Preliminary Findings", *Psychological Reports*, 75,435-448.

Scarlet, Alex.

1991   Acculturative stress and the international student : a comparison of three treatment modalities. *http://digitool.Library.McGill.CA:80/R/-?func=dbin-jump-full&object_id=59955&silo_library=GEN01').Accessed* 14 April ,2017.

Thaker, R.V.

2013   Acculturative Stress and Coping Strategies Used by Asian Indians Living in the United States: A Quantitative and Qualitative Inquiry. *http://ecommons.luc.edu/cgi/viewcontent.cgi?article=1547&context=luc_diss* Accessed 18 April, 2017.

Thomas, M. Choi., J. B.

2006   "Acculturative stress and social support among Korean and Indian immigrant adolescents in the United States", *Journal of Sociology and Social Welfare*, 33, 123-143.

Toyokawa and Toyokawa

2002   "Extracurricular activities and the adjustment of Asian international students: A study of Japanese students", *International Journal of Intercultural Relations*, 26(4), 363-379.

Wilson, J. P., & Drozdek, B.

2012   *Broken spirits: The treatment of traumatized asylum seekers, refugees, war and torture victims*. New York: Brunner- Routledge.

Yeh, Christine J & Mayuko, Inose.

    2003   "International students' reported English fluency, social support
                    satisfaction, and social connectedness as predictors of acculturative
                    stress", *Counselling Psychology Quarterly,* 16,15-28.

Ying, Y.W., & Han, M.

    2005   "The contribution of personality, acculturative stressors, and social
                    affiliation to adjustment: A longitudinal study of Taiwanese students in
                    the United States",*International Journal of Intercultural Relations*, 30,
                    623–635.

Yakunina, Elena. S., Weigold, Ingrid. K., Weigold, Arne. Hercegovac., Sanja, Elsayed. Noha

    2013   "International students' personal and multicultural strengths: reducing
                    acculturative stress and promoting adjustment", *Journal of Counseling
                    and Development*, 91(2), 216–223.