The Impact of Culture Shock and Psychological Adjustment on Mental Well-Being in International Students

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ABSTRACT
Cultural shock is attributed as a psychological response experienced due to adjusting into a new cultural environment. This present study research explored the impact of cultural shock on psychological adjustment and mental well-being. It was hypothesized that there will be a inverse relationship of Culture shock and Mental Well-Being in international students. It was also hypothesized that Cultural shock would be a negative predictor of psychological adjustment. For this purpose, correlational cross-sectional research design was used. The sample included 192 international students with the age range of 18 to 40 (M=21.02, SD=1.50) including 154 men and 38 women recruited through using convenience sampling strategy. A self-constructed demographic sheet, psychological adjustment scale (Ryff & Keyes, 1995), Warwick-Edinburgh mental wellbeing scale (Tennant et al., 2007) and culture shock scale (Mumford, 1998) were used for the assessment. The result of Pearson product moment correlation illustrated the inverse relationship between culture shock and psychological adjustment in students. This study further conducted independent t-test which revealed that examining the links between the evaluation elements could improve the rational understanding of psychological outcomes of acculturation related to personal variability factors. Such insights could also guide host university communities in bolstering the self-esteem and self-belief of their international student peers, aiding them in navigating their psychological adaptation challenges.

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1. Introduction
The advent of globalization combined with internationalization in higher education Seeber, Cattaneo, Huisman, and Paleari (2016) has brought a vital focus on many cross-cultural studies. The interest of international students towards Pakistan have escalated as the quality of education, social environment and friendliness of people had motivated students to study in Pakistan (Shahijan, Rezaei, & Amin, 2016). At the same time, Pakistan is known for its strong cultural inheritance and impartial mindset. Therefore, it brings a huge element of culture shock for any immigrant student. Culture shock is a psychological phenomenon characterized by feelings of discomfort, perplexity, lacking orientation and anxiety experienced when students face unrecognized cultural values and norms being distinguished behaviours from their own (Berry, 2005). Similarly, Culture shock, a mental and profound reaction to the unexpected drenching into a new social climate, has been the subject of broad concentrate in brain science and intercultural correspondence research (Oberg, 1960). Culture shock is a phenomenon ignited by the discomfort and nervousness that emerges when we are suddenly deprived of all the known and familiar social signals that we have grown accustomed to. These
signals or cues comprise the numerous ways students adapt and respond to the myriad of situations encountered in our everyday life. These cues include not just the verbal language, but the entire spectrum of non-verbal communication. The proper time to offer a handshake, the appropriate words to utter upon meeting someone new, understanding when to tip and the appropriate amount, knowing how to issue commands to service personnel, mastering the art of making purchases, recognizing when to accept or decline social invitations, and discerning when to take a statement at face value and when to delve deeper. In this regard, International studies focusing on studying the phenomena that the experience of studying abroad can be both enhancing and testing, frequently requiring impressive mental change (Zhou, Sedikides, Wildschut, & Gao, 2008).

This change cycle includes a mind-boggling interchange of social, mental, and socio-natural factors that impact a singular's prosperity (Pedersen, 1991). As a result, students might face psychological adjustment issues. Psychological Adjustment is the mental or emotional state in which people either actively make changes or inactively accept them in order to maintain an internally acceptable condition (Torbiörn, 1982). One of the main mechanisms involved in adaptation is the decrease of uncertainty (Black, 1988). Attitudes and emotions both play a role in adjustment, international psychological adjustments to the host culture and social blending of a person into the new culture's social interaction (Thomas & Althen, 1989). Many students experience anxiety due to cultural shock (Xiaoqiong, 2008). They are conscious about food, social life, religious restrictions if they belong to another religion than the country they are living in, dress code, social interaction and a lot of misunderstanding happen due to lack of privacy awareness (Zhang, 2013). Moreover, the cultural shock is heightened in first few weeks at exposure to a new culture (Khawaja & Stallman, 2011). The anxiety of uncertainty and stress regarding accommodation, language barrier, getting accustomed with educational settings, transportation huddles, living expenses, adjustment with the new norms and values. All these mental struggles even anticipating loneliness, homesickness and depression becomes inevitably challenging (Lin, 2006). All these facets may hamper an individual's mental well-being. Mental well-being is not only limited to psychological wellness issues; it includes an individual's capacity to oversee pressure, to feel a feeling of direction, and to cooperate emphatically with their general surroundings. Rather it also deals with students abilities of assimilation and acclimating to another academic climate, frequently experience stressors that might influence their psychological wellness (Berr & Sam, 1997; Pedersen, 1991). As a result, it is vital to focus on mental well-being of international students to build adjustment and adaptation to have prosperous study path.

2. Literature Review

Initially, international studies around the world face psychological adjustment issues hence hampering the mental well-being. In similar fashion, research by Iorga, Soponaru, Muraru, Socolov, and Petriariu (2020) aimed to explore the causes of acculturative stress for international students studying at a public medical university in Romania. In the study, 265 students participated. The findings indicated comparison between male students to female students are more likely to feel homesick and stressed out by change. Comparatively to international students without Romanian background, those with Romanian background scored lower on felt hate and stress brought on by change or cultural shock. There was a remarkable lower level of acculturative stress felt discriminated, perceived rejection, and many other concerns were observed among students who had family or friends enrolled within the same university. The negative aspects of studying abroad causes stress and unsatisfaction. Likewise, a study was conducted to examine the changes in the acculturative stress, accustoming with new culture, and college experiences of international students throughout their freshman year of enrolment in American higher education. The sample include 192 first-year international college students. According to the study’s findings, compared to their counterparts, male students belonging to low socioeconomic backgrounds, and students majoring in the humanities had high rates of acculturative stress and low rates of satisfaction with their college incidents. Comparing the first week of their first semester to the last week of their first year, foreign students exhibited less acculturative stress and homesickness as well as greater English proficiency, social connectivity with peers, and happiness with their college participation (Koo, Baker, & Yoon, 2021).
Similarly, Mui and Kang (2006) conducted a study in New York. The study found out correlation linking depression symptoms and acculturation stress in a local probability sample. 407 Asian immigrant elders were part of this study and sample were divided into six group Chinese, Korean, Indian, Filipino, Vietnamese, and Japanese. The sample's depression rate was found to be about 40%, which is greater than that of prior researches of elderly population of Americans or Asiana resided in Asia or the United States of America. According to prediction of multiple regression, acculturation stress brought on because of older people’s impression of a cultural segregation between themselves and their adult children was linked to higher levels of depression. Another recent international study by Koo, Baker, and Yoon (2021) to examined the changes in the acculturative stress, adjustment, and college experiences of international students throughout their first year of enrolment in American higher education. The sample include 192 first-year international college students. According to the study's findings, compared to their counterparts, male students, students from low socioeconomic backgrounds, and students majoring in the humanities had higher rates of acculturative stress and lower rates of satisfaction with their college experiences. Comparing the first week of their first semester to the last week of their first year, international students reported less acculturative stress and homesickness as well as greater English proficiency, social connectivity, and happiness with their college experiences. Moreover, Wenhua and Zhe (2013) found that many international students were facing psychological issues, academic issues, sociocultural issues, general living issues, and English language proficiency. A recent Pakistani study was conducted by Ali (2022) in Karachi. The purposes of the research were to examine the difficulties the Kenyan student encountered during his five and a half years in Pakistan as well as how he overcame culture shock and adjusted to the new academic, language-related, and sociocultural environment in the host nation. The participant was interviewed several times over the course of 16 months, and the individual's stories were used to record the data for this study. The results highlighted various issues including religious, cultural, linguistic, and climatic difference resulting in difficulty in adjustment and adaptation.

The literature review on the cultural shock, psychological adjustment and psychological health among international students highlighted important aspects. Likewise, in a study conducted by Alshammari, Othman, Mydin, and Mohammed (2023) studied the obstacles of Psychological Adjustment and cultural shock for foreign Students. The sample included 1500 international students with the age range of 20-25. The study aimed to study the different challenges that foreign students have faced. The results of the study showed more than 80% of international students faced psychological adjustment issues in foreign countries. In contrast, different coping strategies i.e. problem-focused coping, emotion-focused coping, seeking social support, and counselling facilities helped international students to assimilate to a new culture. This study evidently stresses upon the importance of psychological adjustment and its coping strategies facilitating mental well-being. Furthermore, Zhu (2022) conducted a study on Chinese students in Barcelona (Spain). This study's goal is to examined the case of culture shock and adaption. The sample includes 109 Chinese students. The findings indicated a number of good conclusions that have effects for international students who struggle to fit into new cultures from the minute they land in Spain. The findings also offer fresh perspectives on how students could collaborate and participate. The result indicated the students used self-regulation as part of self-psychological adjustment and building positive relationships with local people. Both immensely worked as adaptation strategies. Moreover, welcoming activities provided by school, assessing local cultural information to get acquainted with similarities and differences in the culture, increasing interaction with Chinese students, and improving language skills. It is imperative to find the support system and counselling services for students to battle with the psychological adjustment.

Figure 1

<table>
<thead>
<tr>
<th>Cultural Shock</th>
<th>Mental Well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Adjustment</td>
<td></td>
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</tbody>
</table>

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2.1. **Rationale of the Study**

The main rationale of the current research is to provide a comprehensive understanding of culture shock effect on psychological adjustment and mental well-being faced by international or foreign students. The study aims to explore the psychological factors linked with the cultural shock. Many factors were seen in the previous literature that are affecting mental well-being. Self-esteem and other factors such as a social isolation, religion, communication skills, adaptation and social support, among others, that have already been mentioned in the literature. This study basically aims to fill the gap and create a solid foundation for further research on how culture shock impact on both well-being and adjustment of a student. The results of the study will help policy makers to design such flexible policies for foreign students, thus it would increase the number of international students admissions in Pakistan concluding it to be better economic conditions for Pakistan overall.

2.2. **Objectives**

- The purpose of the study was to explore the relationship between culture shock, psychological adjustment, and mental well-being among international students.
- To find out the gender differences in culture shock, psychological adjustment, and mental well-being in international students.

2.3. **Hypotheses**

H1: There will be a significant gender differences between culture shock, psychological adjustment, and mental wellbeing.

3. **Method**

3.1. **Research Design**

The correlational cross-sectional research design was used.

3.2. **Sample**

The convenience sampling technique was used to access the sample. The sample size comprised of $N = 192$ students with an age range of 18 to 40 years old ($M = 2.57$, $SD = 0.63$) including 138 men and 54 women who were students of Bachelor’s, PhD and Master’s ($M=2.8$, $SD=0.5$). The data was collected from primarily learners based in China, and a fraction from an Australian university along with European university. The sample consisted of international students who were confirmed to be enrolled in undergraduate or postgraduate courses at any international university. The majority of students, about 72.5%, were between the ages of 33-40, and a substantial were engaged in either coursework or research postgraduate study. The duration of enrolment varied from 1 to 6 years, with a substantial 80.6% having been enrolled for between 1 and 3 years and nearly all (98.2%) between 1 and 6 years. All faculties were represented in the sample, with the largest proportion of students enrolled in Biotechnology (50%)/Commerce (26%) and Engineering (16%). Regarding their countries of origin, there was a broad range, although Asian countries were the most represented. Among these, China and Africa had the highest number of students, each making up 55% of the sample, followed by Europe (10%), Korea (3%) and Hong Kong (8%). The rest of the participants came primarily from the Russia, UK, Canada (collectively making up 4%), and other South Asian countries (3%).

3.2.1. **Inclusion Criteria**

The participants must be with age 18 years and above.

3.2.2. **Exclusion Criteria**

Study Abroad students, due to their short-term stays, and Chinese or other international students lacking addresses, because of logistical challenges they presented, were not considered for the sample. Also, the students who went for education but afterwards converted visa to work or permanent residence and skip the university was not included in the sample.

3.3. **Materials**

3.3.1. **Demographic information sheet**

It consisted of different questions that investigated the relationship satisfaction among married couples such as, Age, gender, time spent abroad and education.
3.3.2. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

It was used to measure emotional/psychological abuse in young adults. It is a short form of the measure which consists of 12 items along with two subscales emotional unresponsiveness and abusive behaviour. This is a Likert type of scale with 4-points including (1=Never, 2= Rarely, 3=Often, and 4= always). The scoring method of scale is summing item responses and a higher score indicates a high level of psychological maladjustment in an individual. This scale indicates a good reliability range between 0.83 and 0.95.

3.3.3. Culture Shock

Assessing culture shock includes recognizing the close to home, mental, and conduct reactions an individual has when presented to a new and new culture. A few measures and scales have been created to assess the seriousness and qualities of culture shock. It consisted of 12 items along with 2 sections: combined culture shock and interpersonal stress items. This is a Likert type of scale with 3 points including (2= First response, 1 = Second response, 0 = Third response). The scoring method of scale is the terminating section A and section B then adding responses separately of all item’s responses. A high score indicates a high level of well-being in an individual.

3.3.4. Psychological adjustment scale

Psychological adjustment scale was initially intended to gauge the mental change psychological and sociocultural adjustment during cross-cultural transition. This scale being a solid and legitimate proportion of mental adjustment was found. It consisted of 20 items with Likert scale which has 5 responses including (5=Strongly agree, 4=Agree, 3=Neutral, 2=Disagree, 5=Strongly disagree.) Whereas negatively worded items were coded reversely and its internal reliability is .84 to .94.

3.4. Procedure

For the present study, adults studying abroad were taken as a sample. Upon obtaining approval for the research topic from both the university’s higher authority and the supervisor, authorization was sought from the authors of the respective scales for evaluation measures. Before data collection, participants received a brief overview of the study and its objectives. Participants were then inquired if they were interested in participating. It was emphasized to the participants that their details would be kept confidential. Once they consented, they were handed a questionnaire along with an information sheet and a consent form. Also, Google forms were developed, the link was shared electronically. The time length to complete questionnaires was 15-20 minutes approximately. Further statistical analyses were carried out for results and reported as per APA seventh edition format. Almost 380 questioners were distributed but 280 people responded and Data of 80 participants were excluded due to incomplete data entry response rate was 87%. Thus, data were collected and arranged. After the completion of the data collection, data were analysed using SPSS 26 version. The ethical guidelines were strictly followed.

4. Results

Table 1: Frequencies and Percentages of Sociodemographic Characteristics of the Participants (N =192)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>38</td>
<td>19.8%</td>
</tr>
<tr>
<td>Men</td>
<td>154</td>
<td>80.2%</td>
</tr>
<tr>
<td>Time spent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 6 months</td>
<td>19</td>
<td>9.9%</td>
</tr>
<tr>
<td>More than 6 months</td>
<td>173</td>
<td>90.1%</td>
</tr>
</tbody>
</table>

Table 2: Psychometric properties of scales and subscales (N=192)

<table>
<thead>
<tr>
<th>Scales</th>
<th>K</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>Cronbach’s a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Culture Shock</td>
<td>12</td>
<td>9.66</td>
<td>5.60</td>
<td>0-22</td>
<td>.80</td>
</tr>
<tr>
<td>2. Psychological Adjustment</td>
<td>20</td>
<td>69.87</td>
<td>8.67</td>
<td>20-83</td>
<td>.78</td>
</tr>
<tr>
<td>3. Mental wellbeing</td>
<td>14</td>
<td>52.08</td>
<td>14.33</td>
<td>14-69</td>
<td>.96</td>
</tr>
</tbody>
</table>

Note: K= No. of items, M=Mean, SD= Standard Deviation, a= Reliability Coefficient
Table 3: Pearson Product Moment Correlation between Culture shock, psychological adjustment and mental wellbeing (N=192)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Culture Shock</td>
<td>9.66</td>
<td>5.60</td>
<td>-</td>
<td>-.59**</td>
<td>-.02</td>
</tr>
<tr>
<td>2. Psychological Adjustment</td>
<td>69.87</td>
<td>8.67</td>
<td>-</td>
<td>-</td>
<td>-.13</td>
</tr>
<tr>
<td>3. Mental wellbeing</td>
<td>52.08</td>
<td>14.33</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: **p<.001,

In order to test hypotheses Pearson product moment correlation analysis was used to examine the association between the culture shock, psychological adjustment and mental wellbeing. The result of correlation analysis showed that culture shock had significant negatively correlated with psychological adjustment and non-significant negative correlation with mental wellbeing.

Table 4: Independent Sample t-test for Difference in Men and Women between Culture shock, psychological adjustment, and mental wellbeing (N=192)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Men (N=38)</th>
<th>Women (N=154)</th>
<th>t(190)</th>
<th>p</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>7.68</td>
<td>15.11</td>
<td>10.15</td>
<td>5.48</td>
<td>2.46</td>
</tr>
<tr>
<td>PAS</td>
<td>71.05</td>
<td>7.21</td>
<td>69.58</td>
<td>8.98</td>
<td>-0.92</td>
</tr>
<tr>
<td>MWB</td>
<td>53.18</td>
<td>15.19</td>
<td>51.80</td>
<td>14.14</td>
<td>-0.53</td>
</tr>
</tbody>
</table>

Note: CS=Culture Shock; CC=Core Culture, IS=Interpersonal Stress, PAS=Psychological Adjustment, MWB=Mental Wellbeing, M= Mean, SD= Standard Deviation, P=Significant Differences and Cohen’s d =Effect Size

In order to test hypothesis 3 independent t test was run with in group. According to the results of t-test, there was significant effect of gender observed on culture shock among early international students with small effect size women scored higher than men in Culture Shock, these differences were statistically significant (p<0.05). Men had marginally better scores in Psychological Adjustment, with a trend towards significance, and higher scores in Mental Wellbeing, although both differences were not statistically significant with small to negligible effect sizes.

5. Discussion
The present study was about relationship between culture shock, psychological adjustment and mental wellbeing. The first hypothesis of the current study investigated that culture shock will be negatively associated with the psychological adjustment. The hypothesis was accepted. The results showed there was a significant negative association between culture shock and psychological adjustment. Past researches suggested the relationship between culture shock and psychological adjustment. Alshammari et al. (2023) studied the challenges of psychological adjustment and cultural shock for International Students. Results of the study showed more than 80% of international students faced psychological adjustment issues in foreign countries. In present, study the results showed there was a significant negative correlation between culture shock and psychological adjustment. It means people who experience culture shock more frequently or more intensely tend to have a worse psychological adjustment and experience more stress and challenges than people who experience it less frequently or less intensely. The second hypothesis of the current study investigated that culture shock will be significantly negative associated with the mental wellbeing. The hypothesis was rejected. Because results showed there was non-significant negative association between culture shock and mental wellbeing means there was no strong relation between culture shock and mental wellbeing. Past researches suggested the relationship between culture shock and mental wellbeing adaptation. According to previous research Akhtar, Kamal, Imtiaz, and Hayee (2022) reverse culture shock is a significant predictor of mental well-being, according to the results. It correlates positively with distress symptoms including anxiety and sadness, as predicted, but negatively with mental well-being. But current study showed non-significant negative relation between culture shock and mental wellbeing because study’s sample size may not have been sufficient to identify a statistically significant link between culture shock and mental health and time of the assessment in respect to the change in culture...
could have an impact on the relationship that was found. For instance, the study may have evaluated culture shock during the first stage of adjustment, but mental health could improve over time. A person's mental health could improve if they spent a lot of time in a different culture.

The third hypothesis of the current study investigated that psychological adjustment will be significantly positively associated with the mental wellbeing. The hypothesis was accepted. Because results showed there was significant positive correlation between psychological adjustment and mental wellbeing means there was strong positive relation between mental wellbeing and psychological adjustment. Past researches suggested the idea that effective stress management techniques contribute to positive adjustment, lessening of psychological discomfort, a state of mental and emotional health, a state of fulfilment, and improved academic results is supported by both research data and unofficial accounts from international students. There is a substantial body of knowledge and research on international students' perspectives on their difficulties in the classroom and individual experiences. Also, according to the findings Murphy et al. (2020) showed a notable decrease in well-being, but psychological distress remained unchanged. Positivity was a crucial predictor for well-being and psychological distress throughout the pandemic. During the first wave, coping strategies like denial, self-blame, and self-distraction were linked to worse mental health outcomes, with self-blame being particularly harmful. Overall, the study underscores the importance of positivity during the pandemic and warns against certain detrimental coping mechanisms. The fourth hypothesis of the present study was that gender differences would observe in culture shock, psychological adjustment and mental wellbeing. After performing t-test the results of t-test was indicated that there were gender differences in culture shock, core culture and interpersonal stress. Psychological adjustment and mental wellbeing showed non-significant gender differences between men and women. According to past studies, Iorga et al. (2020) findings indicated that compared to male students, female students are more likely to feel homesick and stressed out by change. Another study Fang, Handorf, Rao, Siu, and Tseng (2021) among men but not women, the relationship between social support and acculturative stress and depressed symptoms was statistically significant. Current study showed significant differences between men and women in culture shock. Men has low level of culture shock than women it means men has more adjustment abilities than women when they are exposed to a new culture, environment, or society. Present study showed that women has low level of psychological adjustment and mental wellbeing than men. And women face slightly more interpersonal stress than men.

5.1. Limitations and suggestion
- Sample size was relatively small. Further studies can use more diverse and larger sample.
- This study majorly focused on gender differences between culture shock, mental wellbeing and psychological adjustment. Independent t test was run on the current study and is limited by the absence of regression analysis.
- Data was majorly collected from China and small ratio of other countries and still culture variation was not discussed in present study although multicultural students participated in the study. It is recommended to further study differences on cultural variation.
- It is recommended that for future studies those indigenous tools must be designed and used for measuring mental wellbeing, psychological adjustment and culture shock.
- Quantitative method was used to analyze the data. It requires qualitative data to be studied in more depth.
- Data was collected online, in person research should be conducted to interact with participants to get more validated and reliable responses.

5.2. Implications
- This study might help in devising an extensive program to help international students to deal with psychological adjustments and psychological difficulties in a new culture.
- Foundations can execute peer-coaching frameworks where more seasoned worldwide students can guide new students, offering counsel and creating more involvement of foreign students.
- Empowering students by making social affiliations or clubs can give global underestudies a stage to interface, share their encounters, and track down comfort in shared social practices.
Administration of Educational institutions can run counselling session and practice mindfulness, cultivating empathy and acceptance and sensitization of the new cultures by staff and students.

References


