

Academic Stress, Social Support, and Adjustment Among International Students in India

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Abstract

This study uses a correlation, quantitative approach to understand the relationship between academic stress, adjustment, and social support. International students from various colleges and universities across India participated in the study. Analysis revealed significant relationships between academic stress, academic lifestyle, academic achievement, and social support. The adjustment was categorized into academic lifestyle, academic achievement, and academic motivation. Better adjustment and quality social support systems led to a decrease in academic stress. Multiple regression analysis showed academic lifestyle as a significant predictor of perceived academic stress. The academic motivation was directly proportional to an increase in academic stress ($p < 0.05$). We found a significant difference in students' academic motivation based on gender. The findings of this study call for adopting a holistic approach to reduce international students' academic stress and adjustment concerns. Also, steps to ensure social support can enrich students' academic journey in a foreign land.

Keywords: academic stress, adjustment, international students, social support

Introduction

India is witnessing a surge in international student enrollment. These international students are defined as students who are temporary residents of a country, other than their own, for various educational purposes and get viewed as culturally distinguishable from their hosts (Paige, 1990). According to the All-India Survey of Higher Education (AISHE) from the Ministry of Human Resource Development (MHRD), there were around 48,000 students from various foreign countries in India in 2019 (MHRD, 2019).

“The highest share of students come from the neighboring countries of which Nepal contributes 26.88% of the total, followed by Afghanistan, Bangladesh, Sudan, Nigeria, Yemen, and Sri Lanka” (MHRD, 2019, p.14). “India is

gradually emerging as the preferred destination for foreign students, particularly from the South Asian region of total, 73.4% of these international students enrolled in undergraduate courses, and 16.15% in postgraduate courses” (MHRD, 2019). Students migrating from another country experience a sudden change in cultures, people, food, and environment, negatively impacting them if they are not prepared. This maladjustment can cause academic stress, further deteriorating overall health (Hussain et al., 2008; Nasir, 2011). The ever-rising numbers, coupled with the transitional concerns faced by international students, make it imperative to delve deeper into their needs. Extensive studies done in developed countries like the United States (US) have found that international students experience a variety of stressors like discrimination, language barriers, loneliness, financial concerns, and academic pressures (Msengi, 2007). There are models like Michigan State University’s international coffee hour and the outreach model for international student support created to ease these difficulties (Briggs & Ammigan, 2017). The present study delves deeper into the academic pressures faced by students, with an emphasis on academic stress.

Academic Stress Faced by International Students

Chronic stress experienced due to the nature of academic demands that could be associated with depression and physical illness is viewed as academic stress (Macgeorge et al., 2005). Experiencing high levels of academic-related stress puts young people at an increased risk of developing preventable physical health problems later in life (Stults-Kolehmainen & Sinha, 2014). Jones et al. (2018) found that academic distress was primarily responsible for student anxiety and the lack of family and peer support. Deb et al. (2015) found that academic stress was positively correlated to psychiatric problems. Perceived stress was an essential risk factor for low mental health among young adults (Bovier et al., 2004). The difficulties faced by students tend to have negative consequences on their health and academic achievement (Kilinc & Granello, 2003). The transition to college is incredibly stressful for those adolescents who leave home (Larose & Boivin, 1998). Stress and burnout affect academic achievement by increasing the risk of school dropout (Walburg, 2014). Stress faced by college students arises from academic and non-academic factors, including socio-cultural, environmental, and psychological attributes (Brand & Schoonheim-Klein, 2009).

Knowledge of English and cultural distance was directly linked to the stressfulness of role demands in the students (Wan et al., 1992). Their ability to cope with those demands was primarily influenced by their English knowledge and academic and social support networks. In these cases, social support systems at college may help these students manage their academic stress, showing them that academic stress can be reduced with the presence of social support networks (Dwyer & Cummings, 2001; Shumaker & Hill, 1991). Tinto (1993) saw social support helping college students become more socially integrated and showing a decrease in the likelihood of academic stress.

Need for Social Support

Social support was defined by Demaray and co-workers (2005) as an individual’s perception that they are loved and valued by the other people in their social space. Duck (1998) claimed one’s social-support system comprises people who have provided aid in the past and are helping in the present, or who are believed to be willing to provide help in the future. Social support is negatively related to academic stress (Wilks, 2008). Higher levels of academic stressors were predicted by higher levels of life stress and lower levels of social support (Misra et al., 2003). The occurrence of depression in college students decreases if students have had positive adjustments to academic life along with adequate social support (Ross & Mirowsky, 2006). Social support was seen to positively impact mental health among young adults (Bovier et al., 2004).

Similarly, support from friends and lecturers was found to moderate the relationship between attitudinal adjustment and academic performance (Othman et al., 2014). Lin (2009) concluded that students who experienced lower social support showed higher perceived stress and vice versa. Many participants in the study felt that it was the university’s responsibility to help alleviate students’ feelings of social isolation by advertising social events in and around campus (Girmay, 2019).

As international students are culturally very different from their hosts, they could face cultural disparity adjusting to a foreign land. Hence, a comprehensive guide can help to anticipate and understand international students' issues during their adaptation.

Adjustment Issues Faced by Students

Shaffer (1961) defined adjustment as the process through which a living organism maintains a clear balance between its own needs and the circumstances that influence the satisfaction of these needs. First-year college students who reported higher levels of homesickness showed worse overall adjustment to college and were associated with poorer social outcomes (English et al., 2017). International students experience different challenges like academic difficulties, cultural issues, and daily activities while adapting to a new environment (Cigularova, 2005; Selvadurai, 1992). According to a study conducted on Taiwanese students attending Midwestern US universities (Shih & Brown, 2000), the primary adjustment issues faced by international students were (1) lack of English proficiency, (2) inadequate financial resources, (3) problems in social adjustment, (4) problems in daily living, and (5) being lonely or homesickness. Having good family support predicted lower stress rates in students, and friend support predicted a greater level of emotional well-being (Kingery et al., 2020). Language barriers, lack of knowledge, inability to use those resources, and not having adequate social support networks can increase the problems faced by international students (Smith & Khawaja, 2011). The ability to adjust to the local food and severe climate conditions can affect the academic achievement of international students. Both emotional intelligence and cultural adjustment are essential factors that can affect the academic achievement of university students (Nasir, 2011).

The coronavirus (COVID-19) outbreak has spread rapidly and affected people's lives all across the globe. India has been severely affected by the lockdowns and social isolation, especially, in the educational sector (Sharma, 2020). COVID-19 has resulted in significant increases in stress, anxiety, and depression in college students (Husky et al., 2020; Li et al., 2020; Luo et al., 2020; Patsali et al., 2020). COVID-19 related stress has shown a strong correlation with anxiety and loneliness in international students (Misirlis et al., 2020).

Theoretical Framework

Transactional Theory of Stress and Coping

The transactional theory was developed by Richard Lazarus (Lazarus, 1966; Lazarus & Folkman, 1984), which shows that stress comes as a product of the transaction between a person (cognitive, physiological, affective, psychological, and neurological) and their complex environment. The model evaluates how significant life events and daily hassles impact one's emotions, emphasizing coping and stress. The level of stress experienced by one through their thoughts, emotions, and behaviors because of external stressors depends on the evaluation of the situation, which involves a judgment about whether their demands exceed the resources and the ability to cope when demands exceed resources (Lazarus & Folkman, 1984). As seen in this model, academic stress developed by students can be influenced by various factors in their environment.

Direct Effects Hypothesis

According to one of the most dominant social support models, people with high social support have better health than people with lower social support, regardless of stress (Cohen & Wills, 1985). The main-effects hypothesis states that social support is beneficial to an individual even if not facing a stressful condition. This hypothesis asserts that social support benefits depend on how much an individual participates in their social network, as proven in studies (Gerin et al., 1995). This theory indicates the need to promote social bonds among students to aid their adjustment.

Framework for International Adjustment (FIA)

This framework by Black et al. (1991) describes the cross-cultural adjustment process for expatriates and says that adjustment is multifaceted. According to this framework, the degree of adjustment for expatriates is based on three dimensions: their adjustment to the international workplace, their adjustment to interacting with host nationals, and their adjustment to the new environment. Determinants of these factors were divided into two categories, those having anticipatory adjustment (which is an individual's adjustment in the period before departure), and those factors related to in-country adjustment (which is an individual's adjustment to the host country). Our previous experiences influence the expectations we have during the anticipatory adjustment period. In-country adjustment is dependent on individual factors (self-efficacy, relationship skills, and perception skills), non-work factors (cultural novelty, family adjustment), organizational culture (social support, logistic help, institute's culture novelty), and job factors (role clarity, role discretion, role conflicts). This model focuses on integrating domestic and international adjustment of people who migrate to a foreign land which is used to understand the adjustment concerns of international students in a foreign work/academic space.

Research shows that one of the main apprehensions expressed by international students, especially those coming to India, is the cultural difference they experience, followed by adjusting to a different environment. This hampers the overall well-being of the student. This, along with their education, can cause academic stress leading to health issues. Admission of international students to countries such as India is at an all-time high, making this area relevant to the study. The steady inflow of international students into the country makes the study relevant. It benefits the population with positive experiences which will inspire people to develop more multicultural awareness and inclusiveness. Hence this study wishes to give students insight into pursuing their higher education in a South Asian country such as India.

Similar studies have been conducted on students in the US for the migrant Asian student population. But there are very few studies conducted on international students coming to India. This study aims to shed some light on the relationship between academic stress, social support, and adjustment of international students in an Indian context. Findings from the study can be used to help international students understand the nature of their concerns and help them be better prepared. Interventions can be developed to strengthen the adaptation process of international students and help boost their mental health.

Methodology

Research Design

A correlation research design was used to find the relationship between academic stress, social support and level of adjustment in international students. Correlation analysis was used to find the association between variables. Regression was used to predict the relationship between adjustment and social support on academic stress. Adjustment and social support are the independent variables and academic stress is the dependent variable. Descriptive statistics were used to find the central tendency, frequencies, and variation in the data.

In this study, adjustment is defined as the ability to adapt to the current environment (in this case, an academic institute) without facing any difficulties to perform regular, daily routine activities. Social support is the presence of people who provide constant help and comfort and offer a sense of belongingness. Academic stress is the inability to deal with the pressure caused by various academic aspects, such as exams and assignments, which interfere with daily life.

The study tries to demonstrate whether social support and adjustment are related to academic stress among international students pursuing higher education in India. It investigates the relationship between academic stress, social support, and adjustment among international students, and tests for the effect of social support and adjustment on academic stress among international students. The gender difference in academic stress, social support, and adjustment among international students has also been studied. The study's hypotheses were (a) no significant relationship between academic stress and social support of international students; (b) no significant relationship between academic stress and

adjustment of international students; and (c) no gender difference in the level of academic stress, social support, and adjustment among international students.

Participants

The participants consisted of 200 international students, aged 18–30 years, currently pursuing their undergraduate/postgraduate/M. Phil/Ph.D. programs across various Indian universities and colleges. The sample consisted of English-speaking international students of non-Indian origin across various metropolitan cities in India. Purposive and snowball sampling techniques were used for the data collection. The data collection took place during the initial phase of the COVID-19 pandemic when many students were struggling for resources to go back to their home countries or sustain themselves in India, which may have caused a dip in the anticipated sample size.

Instruments

Perceptions of Academic Stress (PAS) Scale

The 18-item scale was developed to measure the perceptions of academic stress and its sources (Bedewy & Gabriel, 2015). The scale has an internal consistency reliability of 0.7 (Cronbach's alpha), and there was evidence for content validity, and factor analysis resulted in four correlated and theoretically meaningful factors for the original PAS scale. The scale measures academic stress along four factors: pressures to perform, perceptions of workload, academic self-perception, and time restraints on a five-point Likert scale: 1=extremely irrelevant, 2=irrelevant, 3=slightly relevant, 4=relevant, and 5=strongly relevant. Five items were reverse-scored to avoid response patterns by the authors. A higher score equates to the student having lesser perceived academic stress.

Multidimensional Scale of Perceived Social Support (MSPSS)

The MSPSS (Zimet et al., 1988) is a brief tool designed to measure perceptions of support from three sources: family, friends, and significant other. The scale comprises 12 items, with four items for each subscale. Social support is rated on a seven-point Likert scale: 1=very strongly disagree... 7=very strongly agree. The cumulative/total scores range from 12 to 84. The reliability of the total scale was 0.88 and the test-retest reliability of the total scale was 0.85. The scale had a high internal consistency ($\alpha = 0.88$).

Academic Adjustment Scale

The academic adjustment scale (Anderson et al., 2016) measures individuals' academic adjustment, primarily focusing on student sojourners who temporarily relocate to a new culture for tertiary education. The tool is divided into three subscales: academic lifestyle, academic achievement, and academic motivation. The reliability coefficient of this scale is 0.76 (Cronbach Alpha Coefficient). This scale has temporal stability and internal consistency. Two items from the tool were reverse scored: basic information about the participant's age, gender, course, institution; and country of origin (obtained at the beginning of the questionnaire).

Procedure

After the IRB approval, data collection was conducted using an online data survey platform with end-to-end encryption. The tools were chosen following an international population. The students were contacted through associations and social media platforms. Emails were sent to the students and informed consent was obtained from all the participants. Participants were also asked to refer other international students. Only the researcher and the supervisor accessed the data. Data collection took place online between June and August 2020, following the COVID-19 protocol.

Data analysis

Data from the completed questionnaires were analyzed using Statistical Package for the Social Sciences (SPSS) 20. After determining the normality of the data, descriptive statistics, Spearman correlation (ρ), multiple linear regression, independent T-test, and Mann-Whitney U test were performed.

Results

Table 1 presents the results of Spearman's correlation, which showed that academic stress had a statistically significant, moderately positive relationship with academic lifestyle ($\rho=0.418$, $p<0.01$). The results also showed a statistically significant, low positive correlation between academic achievement and social support ($\rho=0.299$, $p<0.01$; $\rho=0.254$, $p<0.01$). Academic lifestyle had a significant, low positive relationship with academic achievement, academic motivation, and social support ($\rho=0.392$, $p<0.01$; $\rho=0.148$, $p<0.05$; $\rho=0.375$, $p<0.01$). Academic achievement had a significant, low positive relationship with academic motivation ($\rho=0.265$, $p<0.01$). Academic motivation had a low negative relationship that was not statistically significant with perceived academic stress. ($\rho=-0.21$). Social support had a statistically significant, moderately positive relationship with academic achievement ($\rho=0.321$, $p<0.01$). PAS data were normally distributed ($p<0.05$) and Social Support and Adjustment subscales' data were not according to the results of Shapiro-Wilk normality tests.

Table 1

Descriptive Statistics and Spearman Correlation Matrix

Variables	N	Mean	SD	Min Value	Max Value	W	1	2	3	4	5
Perceived academic stress	200	59.38	10.79	28	86	.343					
Academic lifestyle	200	10.41	2.59	3	15	.000	.418**				
Academic achievement	200	11.29	3.20	3	15	.000	.299**	.392**			
Academic motivation	200	12.18	2.48	3	15	.000	-.021	.148*	.265**		
Social support	200	62.32	14.94	24	84	.000	.254**	.375**	.321**	.110	

Note. * $p<0.05$, ** $p<0.01$, M=Mean, SD=Standard Deviation, W= Shapiro-Wilk's test of normality value

Table 2 presents the results of multiple regression analysis, showing that academic lifestyle predicted PAS ($p<0.05$). Academic lifestyle was a significant predictor of PAS, $F(4, 195) = 13.713$, $p < .05$, $R^2 = .220$, and $\beta = 0.437$. Academic motivation inversely affected PAS ($\beta = -.066$), though not significantly ($p>0.05$). A variation of 22% in PAS was attributable to the independent variables ($R^2=.220$). This outcome shows a relationship between PAS and social support and between PAS and adjustment.

Table 2*Multiple Regression Analyses of PAS*

Predictor	Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	<i>F</i>	Sig.	<i>df</i>
		<i>B</i>	SE	β				
(Constant)	1	40.094	4.479		8.952	13.713	.000	4
Academic lifestyle		1.820	.297	.437	6.119		.000	
Academic achievement		.232	.241	.069	.962		.337	
Academic motivation		-.287	.290	-.066	-.989		.324	
Social support		.019	.050	.027	.386		.700	
				<i>R</i> =	.469 ^a			
				<i>R</i> ² =	.220			

^a *Note.* Predictor: (constant), perceived academic stress

Table 3 presents the results of the independent sample t-test for gender differences among the variables in the present study. It showed no significant difference between male and female participants ($p > 0.05$), although males had slightly higher PAS mean scores.

Table 3*Independent t-Test Comparison Between Male and Female PAS*

Variable	N	Male		Female		<i>t</i>	Sig.	<i>df</i>
		Mean	SD	Mean	SD			
PAS	200	59.89	10.817	58.92	10.811	0.634	0.434	198

Note. PAS = perceived academic stress

The results in Table 4 show a significant difference in the academic motivation between male and female students, ($U = 3778.5$, ($Z = 2.992$, $p < 0.05$)). Participants did not differ significantly in the other dimensions ($p > 0.05$). Females reported higher academic lifestyle, academic motivation, and social support than males, as indicated by their higher mean rank. However, male international students had higher academic achievement (mean rank= 105.15) than females (mean rank= 96.30).

Table 4*Mann-Whitney U Test Comparisons Between Male and Female Participants*

S. No.	Variable	Mean Rank		U	Z	Significance
		Male	Female			
1.	Academic lifestyle	94.67	105.78	4433.5	1.366	.172
2.	Academic achievement	105.15	96.30	4546.0	1.090	.276
3.	Academic motivation	87.77	112.01	3778.5	2.992	.003
4.	Social Support	92.95	107.33	4270.5	1.755	.079

Discussion

The study had three objectives. The first objective was to check if there was a relationship between international students' academic stress, social support, and adjustment. The second was to identify the effect of social support and adjustment on academic stress among international students. The third aimed to find the gender difference in academic stress, social support, and adjustment of international students. Academic stress significantly correlated with two of the three dimensions of adjustment and social support. Based on the questionnaires used to collect data, adjustment was further divided into three subscales; namely academic lifestyle, academic achievement, and academic motivation. The subscales were used for analysis to yield more specific findings.

When scoring for PAS, higher scores on the tool imply the student has lesser stress. From the study, PAS was found to have a significant positive correlation with social support, implying increased social support could decrease perceived academic stress and vice versa. This is consistent with the findings by Rayle and Chung (2007), where a high level of social support from friends often predicted low academic stress levels. Similarly, academic stress negatively influenced the social support experienced by undergraduate social work students (Wilks & Spivey, 2010). This shows an inverse relationship between the two variables, thus rejecting the first hypothesis.

PAS had a statistically significant positive correlation with academic lifestyle and academic achievement. This means that increased academic achievement and lifestyle can decrease academic stress. This finding aligns with some past research that shows a negative correlation between students' stress levels and academic achievement (Elias et al., 2011; Rafidah et al., 2009). Based on research, other factors like language barriers, seen as a major acculturative stressor for international students, interact with other stressors in both academic and socio-cultural contexts (Chen, 1999). Financial issues also affect international students' levels of acculturative stress (Eustace, 2007). Thus, more research is needed to understand the factors that influence international students' academic performance.

All three subscales of adjustment show a positive correlation with each other. This further reinstates the internal consistency of the variables of the adjustment scale used. Academic motivation is negatively correlated with perceived academic stress, which implies that increased academic motivation can lead to increased academic stress. In a study by Liu (2015), academic stress negatively predicted intrinsic motivation for class 10 students. Bhakta (2016) found that 82% of students seemed to have an average level of adjustment; a positive correlation was found between the students' level of adjustment and academic achievement. This finding goes against the proposed second hypothesis.

Apart from this, academic lifestyle and academic achievement positively correlated with social support. Hence, an increase in an individual's social support implies an increase in their academic lifestyle and achievement quality. Students with more significant friends in their social networks demonstrated higher academic achievement (Seon et al., 2019). In a study by Elias and Haynes (2008), academic achievement and social support were associated with students as young as the third grade. Social support influenced students' academic performance strongly. Students reporting higher levels of social support and lower levels of perceived stress also reported higher levels of life satisfaction (Coffman & Gilligan, 2002).

The multiple regression showed that academic lifestyle, a subscale of adjustment, significantly predicted PAS. Wan et al. (1992), found that adjustment difficulties tend to affect international students' academic performance, and their physical and mental health as they try to adapt to their new environment. Academic motivation, which is a subscale of adjustment, inversely predicts PAS which implies that, as one's academic motivation to excel goes up, it may increase their perceived academic stress. Acculturative stress is a significant and negative factor of adjustment among international students (Oyeniya et al., 2021). Students who self-report higher levels of academic-related stress also report lower well-being (Organisation for Economic Co-operation and Development [OECD], 2017). Well-planned buddy programs introduced in colleges provide international students with immense social support and ease the process of adaptation to the various cultures of their host country (Nilsson, 2019). Campus orientations and support systems helped students understand the healthcare systems present in colleges (Khunkhun & Fournier, 2021). Hence, it becomes imperative to find more ways to increase motivation and reduce academic stress as it directly affects one's mental and physical health. These outcomes reinforce the previous findings from the correlation analysis of the variables.

Males had slightly higher PAS scores, implying lesser stress than females; but the difference was not significant. This is consistent with previous studies (Karaman et al., 2019; Sulaiman et al., 2009). Females reported higher academic lifestyles, academic motivation, and social support than males in the current study. Women demonstrated better maintenance and processing of social support, and some studies have also indicated their superior academic achievement (Belle, 1991; Stoet & Geary, 2015; Voyer & Voyer, 2014). Bhakta (2016) found a significant gender difference in adjustment levels. A significant gender difference was seen only in academic motivation in the present study.

Limitations of the study

Due to the unexpected pandemic, the proposed sample size had to be reduced. Since the study explored India's international student population, the collected sample size may not be representative of the entire population. In reality, there could be a host of other concerns that influence perceived academic stress; examples include culture, food, and climate. Moreover, this study only delves into the academic aspects of adjustment difficulties, which leaves room for potential socio-cultural and emotional and cognitive domains to be explored in the future.

Implications and Scope for Further Research

The current study provides additional empirical data that predicts the influence of adjustment on academic stress. These findings can help create better awareness and guidance programs for international students, which can aid their transition to a new country. Specialized modules can be included in college orientations. Universities could conduct classes and promote peer/alumni groups that encourage bonding among students from different countries. Teachers and students could be given special training on cultural sensitivity. Clubs/groups can be initiated and equipped to look into the welfare of international students and their overall well-being.

While this study included students from various countries, additional research can look at students from specific countries with a higher inflow of students into India to obtain more information about their native countries. Comparative studies can also be conducted to discover and analyze characteristic differences in their populations. The research objectives can also be analyzed from a qualitative approach to get a more comprehensive understanding of the experiences

international students go through regarding academic stress, adjustment difficulties, and the influence of social support during their stay in a foreign land.

Conclusion

The current study provides conclusive evidence on the influence of adjustment and social support on the academic stress faced by international students pursuing their higher education in India. This sheds light on the need for more comprehensive policies in these institutions to facilitate peer interactions between students. More research in this area will encourage international students to choose India as their host country for higher education and ease their transition, ensuring a better educational experience.

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