The International Journal of Indian Psychology
ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print)
Volume 10, Issue 2, April- June, 2022
DIP: 18.01.061.20221002, DOI: 10.25215/1002.061
https://www.ijip.in

Research Paper

Academic Stress in Relation to Personality and Gender in College Students

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ABSTRACT

Stress is an inevitable part of a student's life that can affect the academic performance and overall well-being. The stress experienced can differ across genders and personality traits. The pressure of always being at the top, peer pressure and competition amongst students are major stressors which students experience and are subjected to internal and external expectations that stem from the pressure of succeeding academically. A student has to juggle his/her way through hundreds of assignments, tests and examinations without disappointing his/her parents and teachers who have unrealistic expectations from him/ her. This vicious cycle of constantly taking stress, the need to prove their worth and the demanding attitude of parents and teachers leave the students stressed and burdened. With this study, we aim to study the impact of academic stress on gender and personality. A total of 100 participants took part in this study. Standardized measures of academic stress and personality were used. The results showed that there was a significant correlation between neuroticism personality traits and perceived academic stress. However, no correlation between extraversion personality traits and perceived academic stress was found. Moreover, there was no difference in the way males and females perceived academic stress regardless of their personality (neuroticism and extraversion dimension).

Keywords: *Academic Stress, Gender, Personality, Academic Performance*

Academic stress

The word "stress" comes from the Latin word "stringier," which means "to draw tight," and was first used in the late 1700s to express struggle and distress. Stress is a negative emotion accompanied by changes like biochemical, physiological, cognitive, and behavioral which are aimed at either changing or adapting to the stressful event's effects. The body's defences kick in when you sense danger, your body slips into "fight-or-flight" reaction or the "stress response." The stress response generated is the body's way of protecting you. It assists you in remaining focused, energetic, and alert when it is functioning properly. Stress can save your life in an emergency circumstance, for example, providing you greater strength to defend yourself or prompting you to slam on the brakes to escape a car accident.

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Received: January 08, 2022; Revision Received: June 13, 2022; Accepted: June 30, 2022

Hans Selye (1950) defined stress as "the non-specific response of the body to any demand" in one of the first studies of stress in early 1950. Until Selye (1936) proposed using the term "stress" to describe what happened when an organism was subjected to an unpleasant stimulus, the term "stress" had never been associated with human behavior. Through his studies, Selye (1950) was able to differentiate between the physical impacts of stress and other physical symptoms experienced by patients.

Lazarus and Folkman (1984) defined stress as "a pattern of negative physiological responses occurring in situations where people perceive threats to their well-being which they may be unable to meet." Roz, Brody & Dwyer (2002) also defined stress as "a state of physiological and physical tension produced, according to the transactional model, when there is a mismatch between the perceived demands of a situation (the stressor) and the individual's perceived ability to cope".

Since a really long-time students' psychological state has been neglected and stress has been considered as a source which results in disorders like anxiety, depression, personality-related issues etc. in young adults. The expectations parents have for their children, has proved to be stressful which children can't carry anymore. Stress is an interaction between stressors in the environment, individuals appraisal and reactions (Lee & Larson,2000). Stress is often known and understood as a crisis in one's life (Masih & Gulrez, 2006) which affects individuals irrespective of their developmental stage (Banerjee & Chatterjee, 2016).

The COVID-19 pandemic has also imposed challenges on students' academic performance and achievement leading to stress associated with it. With the nationwide lockdown and quick closures of universities, students encountered uncertainty and were concerned about their academic future, experienced social isolation and a lack of support (Elmer, Mepham &Stadtfeld, 2020). The shift from an offline to an online mode of education supported the rise in academic stress, anxiety and depression faced by students (American College Health Association, 2019).

Moreover, the negative impacts of COVID 19 on academic stress levels were seen higher in female students as compared to male students (Prowse et al, 2021).

Men and women are both subject to stress (Psychological Review, July 2000). Hormonal differences between men and women are mostly to blame for this. Cortisol, epinephrine, and oxytocin are hormones that are released into the bloodstream when people feel stressed. Cortisol and epinephrine are responsible for increased blood pressure and blood sugar levels, as well as a decrease in immune system function.

Women deal with stress by caring and nurturing themselves due to higher levels of oxytocin and its unique capacity to bind with other reproductive hormones. Men, on the other hand, produce less oxytocin, resulting in a greater number of men participating in the fight or flight response. This is because males react differently than women, many men bottle up their stress or find ways to avoid their problems entirely. It becomes essential to see whether gender differences will be prevalent when studying academic stress on students.

Therefore, to reduce the stress faced by students the government can formulate certain guidelines and policies which can decrease the extensive coursework and syllabus. Educational institutions can do their bit by providing regular counselling sessions to students to elevate stress, load and burden and coming up with holistic measures to solve them.

Parents should be kept in a loop when it comes to knowledge about mental health and academic stress, they should be taught strategies to help improve the resilience and coping strategies of their children and help them focus on the quality of education and not just the academic marks.

Causes of academic stress

Academics- Academic pressure is ranked #1 among the causes of stress in students. Taking on increasingly demanding work alone might necessitate stress management measures. Teachers might want to utilize their classroom structure and teaching methods to introduce students to this stress. Students who are required to interview older students and instructors, as well as conduct Internet research on the subject, may be better prepared for the strains of academic obstacles.

School environment- Students may experience stress as a result of the school environment. Competitive environment and the heavy coursework may put students under a lot of pressure and stress, especially the ones who are not highly intelligent. Students transitioning to secondary school find it difficult to move around to classes on a regular basis. Those entering higher school face the challenge of leaving home and starting a new life in a new environment. Both may put kids under a lot of pressure.

Parental Pressure - Finally, parental demands cause stress to students at both levels. Parents want to see achievement in school, but they also want to see success in other aspects of life. Parents may become one of the biggest sources of stress for students in their efforts to lead their children. Parents and others who work with kids should take the time to notice the difficulties that students endure; if they then give stress management techniques, they will help to ease and encourage their students.

Academic Stress and Gender Differences

Researchers have found that females have the tendency to perceive and experience academic stress a lot more as compared to males. Calaguas (2011) conducted a study on college students to examine the perception of academic stress with respect to gender differences. The results showed that no significant difference was found in their perception of academic stressors however, on comparing the mean scores it was found that females scored more as compared to men. Backovic, Zivojinovic, Maksimovic & Maksimovic (2012) conducted a study to assess impact the academic stress on medical college going students based on their gender. The findings showed that the female as compared to male students reported high levels of stress and assessed their physical health and general levels of stress as worse. The major stressor for the females was exams. 50% of all examined students described exam as a major source of stress. However, this source of stress was frequent in female students.

Furthermore, Misigo (2015) researched the impact of perceived stress levels on the gender of graduate students in Kenya. Results of the study showed a significant difference between the stress mean scores of males and females, with female students reporting higher levels of stress as compared to male students. Female students had higher academic stress than male students (Karaman, Lerma, Vela & Watson ,2019). Similar findings were also found that females have higher level of academic stress than males (Busari,2012; Busari, & Adewuyi, 2018; Kadapatti ,2017; Kiani, Latif, Bibi, Rashid &Tariq ,2017; Uma & Manikandan, 2013). Moreover, studies also show that there is no difference in the way males and females perceive academic stress. No significant differences in level of academic stress and gender (Dhakal, 2013; Fromel, Safar, Jakubec, Groffik & Zatkal ,2020; and Singh & Singh,2014).

Academic stress and Personality

Personality refers to the patterns of conduct that a person exhibits in response to the psychological features or conditions that lead to those patterns. It has been discovered that students' degrees of academic stress differ depending on their personality types. Personality qualities play an important role in a student's life when it comes to dealing with academic challenges that might lead to a drop in academic performance. Students' academic stress may be linked to poor academic achievement. Excessive stress can cause physical and mental health problems, as well as lower self-esteem, academic performance, and personal development. Personality traits have an influence on an individual's perception to stressful situations.

A study was conducted by Ahadi and Narimani (2010) in which they investigated the relationship between personality traits, academic stress and academic performance of students. The results showed that there is a significant positive correlation between conscientiousness, extraversion and openness to experience, agreeableness and academic performance and a negative correlation with neuroticism and academic performance. A significant negative correlation was also found between academic stress and academic performance. Furthermore, the results showed that personality traits was responsible for variance in academic stress is 5% by extroversion and 3% by neuroticism.

Stress was correlated positively with neuroticism, but not with any other personality traits (Allred, Granger, & Annalakshmi; 2018, Hogstrom,2013). A study was conducted on personality traits and academic stress by Bob, Popescu, Pirlog, Buzoianu (2014). Hystad, Eid, Laberg and Johsen (2009) also explored the capacity of hardiness personality to buffer the relationship between academic stress and health. Results indicated that hardiness was negatively correlated with academic stress and the number of health complaints and moderately with academic stress and health. The relationship between personality traits, academic stress and academic performance in students were studied by Shokri (2007) in which a significant positive correlation between neuroticism and academic stress was found. There is a significant negative correlation between extraversion and academic stress. A similar study was conducted by Rentala, Nayak, Patil and Aladakatti (2019) where they examined educational stress and their predictors among adolescent girls. Results showed that the number of siblings and personality negatively predicted stress and were considered as protective factors. Results also found that neuroticism positively predicted stress among adolescent girls and was considered a risk factor. Sahu and Jha (2020) conducted a study on students of the Baster district of Chhattisgarh. Eysenck's Maudsley Personality Inventory (MPI) and Academic Stress Scale for Students was used. Data were obtained and analysed using descriptive statistics, t-test, and regression analysis. The results show significant differences between academic stress and gender, academic stress and locale, personality and locale of students. There was no difference in terms of gender with respect to the personality of male and female students. Make students experience more academic stress as compared to girls. Similarly, stress was experienced more by non-tribal students as compared to tribal students. The result of regression analysis showed that personality emerged as a significant predictor of students' academic stress explaining about 30.5% variation

Purpose

The purpose of the study is to analyse the effect of perceived academic stress on males and females ranging from 18 to 25 years of age with respect to extraversion and neuroticism personality traits.

Hypothesis

- H1- There would be a significant correlation between neuroticism personality trait and perceived academic stress.
- H2- There would be significant correlation between extraversion personality traits and perceived academic stress.
- H3- There would be no difference in the way males and females perceive academic stress regardless of their personality (neuroticism and extraversion dimension)

METHODOLOGY

Sample

The sample consisted of 100 males and females from New Delhi, India.

Measures

The following standardised tests were used

- *Eysenck's Maudsley Personality Inventory (M.P.I.): developed by Jalota and Kapoor (1975)* was used to measure the personality of the subjects. Total of 24 items were distributed among the two personality dimensions neuroticism and extroversion.
- *Perceived Academic Stress Scale: Perceived Academic stress scale by D. Bedewy and A. Gabriel (2015)* for university students was used to assess the perceived academic stress and its sources of the students. This scale consists of 18 items based on five- point Likert scale and measures three main areas of academic stress namely, the academic expectations, workload and examination and student's academic self-perception.

RESULTS AND ANALYSIS

Table 1: Showing mean, median and standard deviation of N=100

	Gender	Extraversion	Neuroticism	Perceived Academic Scale
N	Male	50	50	50
	Female	50	50	50
Mean	Male	2.26	3.52	52.4
	female	1.96	3.94	53.4
Median	male	2.00	3.00	53.0
	female	2.00	4.00	54.0
Standard deviation	male	0.986	1.46	12.1
	female	0.903	1.13	8.05

Table 2: showing correlation of 3 variables

		Extraversion	Neuroticism	Perceived Academic Scale
Extraversion	Pearson's r p-value	— —		
Neuroticism	Pearson's r	0.016	—	
	p-value	0.876	—	
Perceived Academic Scale	Pearson's r	0.172	0.310 **	—
	p-value	0.087	0.002	—

Note. * p < .05, ** p < .01, *** p < .001

Table 3: showing Independent Samples T-Test

		Statistic P	df	P
Extraversion	Student's t	1.587	98.0	0.116
Neuroticism	Student's t	-1.607 [a]	98.0	0.111
Perceived Academic Scale	Student's t	-0.456 [a]	98.0	0.649

Levene's test is significant ($p < .05$), suggesting a violation of the assumption of equal variances

Table 4: Showing Group T test scores

		Group	N	Mean	Median	SD	SE
Extraversion		male	50	2.26	2.00	0.986	0.139
		female	50	1.96	2.00	0.903	0.128
Neuroticism		male	50	3.52	3.00	1.460	0.207
		female	50	3.94	4.00	1.132	0.160
Perceived Academic Scale		male	50	52.42	53.00	12.146	1.718
		female	50	53.36	54.00	8.045	1.138

DISCUSSION OF RESULTS

The results found out that the average perceived academic stress scores of male and female par5tcipatnts are 52.4 and 53.4 respectively. The average extraversion personality scores of male and female subjects are 2.26 and 1.96 respectively. The average neuroticism personality scores of male and female subjects are 3.52 and 3.94 respectively. However, the standard deviation of perceived academic scale for males is 12.1 and for females, it is 8.05. Also, it was found that there is a positive significant correlation between neuroticism personality trait and perceived academic stress ($r=0.310$, $p<0.1$) as shown in Table 2. Research conducted by Ebstrup, Eplov, Pisinger & Jorgensen (2011) supports our results that there is a positive correlation between neuroticism and academic stress. Self-report measure of neuroticism showed significant correlation with both physical and psychological stress responses (Xin et al, 2017) Thus, the hypothesis "there would be significant correlation between neuroticism personality trait and perceived academic stress" stands approved. No correlation has been found between extraversion and perceived academic scale. Therefore, the hypothesis "there would be significant correlation between extraversion personality traits and perceived academic stress" stands rejected.

A study was conducted by Ciorbeaa and Pasaricaa(2012) which showed a weak relationship between extraversion and academic performance. Thus, no significant correlation between extraversion trait and academic stress has been found. The t test scores are more than 0.05

which means that there is no difference in the way males and females perceive academic stress regardless of their personality (neuroticism and extraversion dimension). Thus, this hypothesis has been proved. However, there are studies which show that academic stress levels in female students are higher as compared to male students (Prowse et al, 2021). Academic stress differs significantly across males and females. Females reported to have higher scores than males (Reddy, Mennon & Thatitil, 2018; Ghosh, 2016).

CONCLUSION

Academic stress has become a huge and a prevalent issue across continents, cultures, and ethnic groups (Wong, Wong & Scott, 2006). Its impact has increased in COVID, with the shutting down of schools and educational institutions. The present study brought our focus to the fact that academic stress still continues to be a problem affecting thousands of males and females which further affects their well-being. In the present study, it was found that males and females react to stress in the same manner. However, drawing from previous studies we observed that our result contradicts what has been found in the past. It has been shown that females are more likely to experience academic stress as compared to males. Personality-wise differences with respect to neuroticism and extraversion traits were also highlighted. Thus, it becomes important that people with neurotic personality traits learn to manage stress not at the institutional level but personal and social level as well. Techniques like guided self-help, mindfulness- and compassion-based meditation, individual and group therapy, good self-care, and engaging in activities that address issues and challenges and work on improving those areas can, among other things, help make a positive impact (Brenner,2018). Thus, improving the holistic well-being of the student would aid him/her to perform better academically. As far as academic stress is concerned, the education authorities and the government should take measures to revise the syllabus. Schools and colleges can aid students' psychological wellbeing by being proactive by proving students with individual counselling sessions on a regular basis.

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Bedi B. & Nayyar N. (2022). Academic Stress in Relation to Personality and Gender in College Students. *International Journal of Indian Psychology*, *10(2),* 595-603. DIP:18.01.061.20221002, DOI:10.25215/1002.061