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A Study of Gender Difference in Perceived Stress among College Students

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Abstract

Aim: The aim of the study was to observe gender difference in perceived stress among college students. **Materials and Methods**: A sample of 200 college students (100 males and 100 females) aged 18-22 were selected from Ludhiana, Punjab. A Cohen's Perceived Stress Scale (PSS-10) was used for data collection. **Results**: A statistical significant difference was found between the mean scores of perceived stress levels among male and female college students. **Conclusion**: It was concluded that gender do play a significant role in determining stress levels among college students.

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Introduction

"Stress is the Spice of Life; the absence of stress is death"

-Hans Selye

Stress is a term used regularly in books, in the media, and in daily life and we all experience a great deal of it in our everyday lives. According to World Health Organization (2023), Stress can be defined as 'a state of worry or mental tension caused by a difficult situation'. It is a natural human response that prompts us to address challenges and threats in our lives. McNamara (2000) refers to stress as the 'internal state of the individual, an external event, or the interaction between a person and his or her environment.' Pargman (2006) defined stress as an 'uncertain reaction to external and internal events.' The term 'stress' was first coined by endocrinologist Hans Selye to describe the "nonspecific response of the body to any demand". He proposed that stress was present in an individual throughout the entire period of exposure to a nonspecific demand and gave the concept

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of 'general adaptation syndrome' (Tan & Yip, 2018). The syndrome divides the total response from stress into three phases: the alarm stage, resistance and the exhaustion. Events that cause a stress reaction in an organism are called stressors. There are various sets of signs and symptoms to identify stress reaction in an organism. These include emotional, behavioural, physiological, psychological and cognitive symptoms. Physical signs include unusual fatigue, headaches or backaches, chest pains, nausea, insomnia, weight gain or loss, skin breakouts (hives, eczema), frequent colds, loss of sex drive, diarrhoea or constipation. Behavioural symptoms include eating too much or too less, dependency on alcohol, cigarettes or drugs to relax, nervous habits (nail biting, pacing), overreacting to unexpected problems, picking fights with others, crying a lot, procrastination and neglecting responsibilities. Emotionally, people under stress may experience anxiety, depression, restlessness, moodiness, irritability, sense of loneliness or isolation, feeling overwhelmed, inability to relax, feeling tensed and agitated, short temper as well as anger and frustration. Cognitive symptoms of stress include memory problems, inability to concentrate, poor judgement, anxious or racing thoughts, loss of objectivity, fearful anticipation, indecisiveness, poor decision making, loss of sense of humour. The causes and factors leading to stress are vast. Stressors that involve more important aspects of a person's life such as the death of a loved one, a divorce, a job loss, a serious illness, or negative social exchanges tend to be highly stressful for most people. Sometimes, there are major life changes in one's life such as transitioning from school to college, marriage etc. which require a person to make adjustments and changes leading to stress. It is found that stressors that are uncontrollable and unpredictable cause a large amount of stress. These include catastrophes like losing one's family members and home in disasters like hurricanes, tornadoes, tsunamis, earthquakes, floods etc. Social instability also leads to stress. People who are constantly migrating and acculturating to newer societies largely adapt and adjust to changing environments further contributing to stress. Low social status is directly linked to stress. Greater chronic stress is experienced by people who are the bottom of the socio-economic ladder. Imbalance between the demands of external events and the physiological and psychological resources a person possess to meet those demands also contribute to high stress. Moreover, when several stressors are encountered simultaneously and for longer duration causes more stress. Banu, and Vardhan (2015) conducted a study to investigate the perceived academic stress levels of Pondicherry University students across gender, academic streams, semesters, and academic performance. A group of 699 students from 3 academic streams viz. Humanities and Social Sciences, Science and Management was covered. Of these, 53.1% (n=355) were males and 46.9% (n=314) were females. About 61.9%, 30%, and 8.1% belonged to 21 to 22 years, 23 to 24 years and above 25 years age group respectively. The data was collected through specially designed Structured Questionnaire developed by Deb and Banu (2013) and a standardized psychological scale on academic stress. Findings disclosed that female students experienced more academic stress than male students (p<.01). Students from Humanities and Social Sciences found to be suffering more from academic stress as compared to Science and Management Students (p<.01). Semester 2 students (p<.01) and students with better academic performance (p<.01) reported experiencing more academic stress. Calvarese (2015) studied the effect of gender on stress factors among the university students at a state university locate in the Central Valley of California. A survey was administered on 224 university students. After data collection, cross tabulation and chi square analysis were done on 8 stress reaction variables and gender. The stress reaction variables were anger, depression, aggression, escape or hide, use stress reduction techniques, frustration, anxiety, or none. Results yielded that more females experience higher levels of depression, frustration, and anxiety than their male counterparts when reacting to stress. While the stress reaction of anger was barely statistically insignificant, more females expressed anger than males as a reaction to stress. In a study conducted by Graves et al.,(2021) on University students (n=448) of a large, suburban,

public university in Boca Raton, Florida to investigate the gender differences in perceived stress and coping among college students yielded the similar results. Perceived Stress and Scale (Cohen et. Al) and brief COPE was used for measurements. For the study, the stress levels were distributed into three categories of their total scores (mild, 0 to13; moderate, 14–26; and severe 27–40). Independent t-tests evaluated gender differences in Total PSS score. Overall, the females (n=269) reported higher total PSS than their male counterparts (n=154). In addition, more female students reported "moderate" levels of stress than male students ($p < .001$).

Materials and Methods

The present study was conducted on 200 college students. From which 100 were males and 100 were females from Ludhiana, Punjab. The age range of the students were between 18-25 years. To assess the levels of Perceived Stress in college going students, Cohen's Perceived Stress Scale (PSS-10) (Cohen et al. 1983) was used.

Results and Discussion

Table 1 shows the values of mean, median, mode of the scores of college students on the variable of perceived stress as 20.48, 20.00, and 20.00 respectively, which are quite proximate to each other. The values of skewness and kurtosis in case of the college students are 0.202 and 0.135 respectively showing the distribution as positively skewed and leptokurtic. But these distortions are quite small. Therefore, the distributions can be taken as normal.

Table 1. Mean, Median, Mode, Standard Deviation, Skewness, Kurtosis of scores of perceived stress

Variable	Mean	Median	Mode	S.D.	Skewness	Kurtosis
Perceived Stress (N=200)	20.48	20.00	20.00	5.11	0.202	0.135

Table 2 shows that the values of mean, median, mode of the scores of male students on the variable of perceived stress levels are 19.45, 19.00, 19.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of male students are 0.134 and –0.111 respectively showing the distribution as positively skewed and negatively platykurtic. But these distortions are quite small. Therefore, the distributions can be taken as normal. The values of mean, median, mode of the scores of female students on the variable of perceived stress levels are 21.50, 21.00, 20.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of female students are 0.194 and 0.294 respectively showing the distribution as positively skewed and leptokurtic. But these distortions are quite small. There, the distribution can be taken as normal.

Table 2: Mean, Median, Mode, Standard Deviation, Skewness and Kurtosis of scores of perceived stress of male and female students

Variable	Mean	Median	Mode	S.D.	Skewness	Kurtosis
Male	19.45	19.00	19.00	4.82	0.134	-0.111
Female	21.50	21.00	20.00	5.02	0.194	0.294

Table 3 revealed that the mean scores of males and females on the variable of perceived stress levels are 19.45 and 21.50 respectively. The t-ratio is calculated as 2.88 with d_f =198 which is significant at both 0.05 and 0.01 levels of significance. This revealed that there exists a significant difference between mean scores of perceived stress levels of male and female college students.

Table 3. Significance of Difference between Mean Scores of Perceived Stress Levels among Male and Female students

Group	Variable	N	M	S.D	SE_M	t-ratio	Sig./Not Sig.
Male	Perceived Stress	100	19.45	4.82	0.5	2.88	Significant
Female		100	21.50	5.02	0.5		

Conclusion

It was concluded that there exists a statistically significant difference between the mean scores of the male and female college students on the variable of perceived stress levels. This indicates that gender do play a significant role in determining perceived stress levels among college students.

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Conflict of Interest: None declared