

Examining the Stress of University Students – Factors and Coping Strategies

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ABSTRACT

Background: The incidence of stress among university students is well known, with reports suggesting that many slip into the moderate to severe range. In a study, for example, about two third of those involved experienced moderate stress particularly students suffering from chronic illness or going through academic issues. However, only chronic illness and academic pressure cannot be counted for students' stress there are several other factors like parental expectations, finances, social relationships, relocation of campus, accessibility to resources, negative thinking pattern, overthinking, etc. A further statistics reveal that 66 percent of college students felt stress on a daily basis, with emotional strain being a primary reason for dropout.

Objectives: This research examines how students at the Central University of Andhra Pradesh perceive stress and the methods they employ to manage it. Additionally, the investigation aims to identify the various elements that contribute to stress among these university students.

Method: The current research uses cross-sectional design. To determine stress among students (N=114) Perceived Stress Scale (PSS10) was used. Later the scores of PSS10 were correlated with brief cope questionnaire to identify the coping strategies among the university students which fall into three categories: Problem focused, Emotion focused and Avoidant coping. Further an independent sample t test was established to determine the mean differences of stress among first year students (N=64) and final year students (N=50). The study also assessed the factors contributing to stress which can be classified into three separate tiers: Internal factors, External factors or Both.

Results: The relationship between perceived stress and Problem focused coping was $r=-0.34$ ($p=.716$) which was not statistically significant.

The relationship between Perceived stress and Emotion focused coping was $r=.260$ at 0.01 level ($p<0.01$) and was statistically significant

The relationship between Perceived stress and Avoidant coping was $r=.349$ at 0.01 level ($p<0.01$) and was statistically significant.

An independent-samples t-test was conducted to compare the perceived stress for first year students and final year students. There were significant differences ($t(112) = -2.628$, $p = 0.10$ in the scores with mean score for first year ($M = 15.20$, $SD = 4.847$) was higher/lower than and final year ($M = 17.64$, $SD = 4.997$) 25.4% of the students reported the internal cause of stress. 36.0% of the students reported external causes of stress. 19.3% of the students reported the cause of stress is both internal and external.

Conclusion: As perceived stress increases, students are not likely to engage in Problem focused coping instead they are more likely to use emotion and avoidant focused coping strategies. Moreover, the first-year students significantly experience lower stress than the final year students.

Keywords: Perceived Stress, Coping mechanisms, University students

INTRODUCTION

University life marks a time of change and adaptation for students. While it presents chances for personal and scholarly development, it also introduces various difficulties that can lead to stress. Recognizing how common stress is among college students and what factors contribute to it is essential for creating effective support systems and interventions.

University students commonly experience high levels of stress, which can have detrimental effects on their psychological health, scholastic achievements, and quality of life. The combination of educational responsibilities, peer influence, monetary difficulties, and individual struggles frequently results in heightened stress among this demographic.

Stress however can influence one in a positive way. Positive influence of stress can help one to gain new perspective take them necessary course of action. In contrast negative influence of stress can bring feelings of distrust, anger, depression and can also contribute to health issues like heart disease, hypertension etc. Malach, Pines and Keinan (2007) defined stress as the perception of incongruity between environmental demands and an individual's capacity to meet these demands. Auerbach and Grambling (1998) posited that any situation that can elicit a perceived threat or danger to one's well-being can be considered stress.

Higher education demands that students acquire and demonstrate proficiency in a vast array of knowledge and abilities. To maintain competitive academic performance, undergraduates often find it necessary to make personal and social compromises. Numerous research studies (Schafer,1996; Fisher,1994; Altmaier,1983; Greenberg and Valetutti,1980) have identified a significant correlation between stress levels and college student experiences.

Elements That Induce Stress

Scholastic Challenges: University students often experience significant stress due to intense academic requirements, including substantial coursework, strict time constraints, and high-pressure learning environments.

Interpersonal Obligations: Juggling academic responsibilities with social commitments, extracurricular pursuits, and interpersonal connections can be a considerable source of stress.

Monetary Pressures: The economic strain of college fees, daily expenses, and other financial obligations can generate anxiety and stress among university attendees.

Individual Struggles: Stress can also stem from personal matters, such as domestic issues, medical concerns, and difficulties in romantic relationships.

Contextual Influences: Stress levels can be intensified by factors such as congested living spaces, insufficient rest, and poor lifestyle choices.

In terms of coping strategies, students employ a combination of problem-focused, emotion-focused, and avoidance strategies (Vetrivel et al., 2024). Positive coping mechanisms include planning and prioritizing, taking study breaks, practicing mindfulness and deep breathing, setting realistic goals, making healthy lifestyle choices, utilizing university resources, using time management apps, and engaging in hobbies (Islam & Rabbi, 2024). Social support and optimism are also identified as effective coping strategies (Yavuz, 2020). However, reliance on avoidance strategies, such as excessive gaming or substance use, often correlates with increased stress levels (Vetrivel et al., 2024). Students who experience life stressors and engage in more negative than positive coping strategies are 2.49 times more likely to experience depression (Terrell et al., 2022). Therefore, it is crucial for universities to establish stress counselling

programs and provide workshops on effective coping strategies, particularly for first-year students (Amponsah & Akosah, 2022; Bastani et al., 2021).

AIM

The aim of the study is to examine the Stress among university students, identify their coping strategies and factors contributing.

METHODOLOGY

A. RESEARCH DESIGN

The study utilized a cross-sectional approach with a correlational design to examine the connection between students' perceived stress and their coping mechanisms. Additionally, an Independent Sample t-test was conducted to examine variations in stress levels across different academic years. This statistical analysis compared the stress levels of students in their first year to those in their final year, providing insights into how stress perceptions might change over time.

B. PARTICIPANTS

The participants were selected from Central University of Andhra Pradesh (N=114). Random sampling was established to ensure the diversity. The age of the sample ranges between 18-25 years. Participation in the study was voluntary and the participants were completely aware of risk and benefits caused during the study. Ethical Consideration was ensured during the study. Moreover, the participants details are kept confidential.

Inclusion Criteria

- Participants belonging to age group 18-25
- Participants who are the students of Central University of Andhra Pradesh
- Participants who are Indians.

Exclusion Criteria

- Participants with congenital, development or Mental Disorders
- Participants who are enrolled in the program of Psychology.

C. DATA COLLECTION

Participants completed validated questionnaires measuring Perceived Stress and Coping Strategies. The data were collected using two psychological measures:

1. Perceived Stress Scale (PSS10)

Sheldon Cohen created the Perceived Stress Scale, which is now the most commonly utilized psychological tool for assessing stress perception. This instrument evaluates the extent to which individuals view situations in their lives as stressful. The scale's items were crafted to gauge how unpredictable, unmanageable, and overwhelming respondents find their lives. Additionally, it incorporates several direct questions about current experienced stress levels. Designed for use in community samples with a minimum of junior high school education, the PSS features easily comprehensible items and straightforward response options. The questions are general in nature, making them largely free from content specific to any particular subgroup. The PSS inquires about feelings and thoughts over the past month, asking respondents to indicate the frequency of certain experiences. To calculate PSS scores, responses to the four positively worded items (4, 5, 7, and 8) are reversed (0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0), and then all scale items are summed. A condensed 4-item version can be created using questions 2, 4, 5, and 10 from the PSS 10-item scale.

2. Brief Cope

Charles S Carver introduced the Brief Cope in 1997. This assessment tool is frequently utilized in healthcare environments to evaluate patients' emotional responses to challenging situations. It can assess how individuals cope with various adversities, such as cancer diagnoses, cardiac issues, physical trauma, violent incidents, environmental catastrophes, financial difficulties, or mental health concerns. In counseling settings, the scale proves valuable for identifying both beneficial and detrimental ways people react to stressors.

The scale identifies an individual's primary coping mechanisms through scores on three subscales:

- Problem-Focussed Coping
- Emotion-Focussed Coping
- Avoidant Coping

Results are displayed as average scores for these three overarching coping styles. These scores are calculated by dividing the sum of item scores by the number of items, indicating the extent to which the respondent employs each coping style. The scoring system is as follows: 1 = "I haven't been doing this at all," 2 = "A little bit," 3 = "A medium amount," and 4 = "I have been doing this a lot."

D. PROCEDURE

The present study was conducted among adults of age group of 18-25 years studying in Central University of Andhra Pradesh. The responses from the participants were collected online via Google Forms. The first step was to collect demographic data like Name, age, Gender, Semester, State, Religion and Annual income (optional). Participants consent was also taken before the assessment. In the next step participants perception of stress and coping was evaluated using the Perceived Stress Scale (PSS10) and Brief Cope Inventory. Instructions were provided at the beginning of the questionnaires and then the data collection was made. Participants were informed that the data were collected for research purpose and all information will be treated confidentially and will not be used for any other purpose except for research. Informed Consent was acquired by asking the participant to read all the information provided and proceed by starting whether willing or unwilling. The statistical analysis to analyse the data were Pearson Correlation and independent sample t test. The analysis was carried out in SPSS.

RESULTS

1. A Pearson Correlation examined the relationship between Perceived Stress and Problem focused Coping Strategies among students. The mean of Perceived Stress was 16.27 (SD=5.040) and the mean for Problem focused Coping was 20.91 (SD=4.902). The relationship was negligible and not statistically significant $r=-.034$ ($p=.716$)

Table 1 Shows the correlation between perceived stress and Problem focused coping

Correlations			
		PSS	PFC
PS	Pearson Correlation	1	-.034
	Sig. (2-tailed)		.716
	N	114	114
PFC	Pearson Correlation	-.034	1
	Sig. (2-tailed)	.716	

	N	114	114
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2. A Pearson correlation examined the relationship between Perceived stress and emotion focused coping. The mean of perceived stress was 16.27 (SD= 5.040) and the mean for emotion focused coping was 27.22 (SD=5.774). The relationship was positive relationship between the variables and statistically significant $r = .260$ at 0.01 level ($p < 0.001$).

Table 2 Shows the correlation between perceived stress and Emotion focused coping

Correlations		PSS	EFC
PS	Pearson Correlation	1	.260**
	Sig. (2-tailed)		.005
	N	114	114
EFC	Pearson Correlation	.260**	1
	Sig. (2-tailed)	.005	
	N	114	114

3 A Pearson correlation examined the relationship between Perceived stress and Avoidant coping. The mean of perceived stress was 16.27 (SD= 5.040) and the mean for Avoidant coping was 16.54 (3.565). The relationship was positive relationship between the variables and statistically significant $r = .349$ at 0.01 level ($p < 0.001$).

Table 3 shows the correlation between perceived stress and avoidant coping

Correlations		PSS	AC
PS	Pearson Correlation	1	.349**
	Sig. (2-tailed)		<.001
	N	114	114
AC	Pearson Correlation	.349**	1
	Sig. (2-tailed)	<.001	
	N	114	114

** . Correlation is significant at the 0.01 level (2-tailed).

4 **H0:** there is significant difference between the perception of stress among first year students and final year students

H1: there is significant difference between the perception of stress among first year students and final year students

An independent-samples t-test was conducted to compare the perceived stress for first year students and final year students. There were significant differences ($t(112) = -2.628, p = 0.10$ in the scores with mean score for first year ($M = 15.20, SD = 4.847$) was lower than and final year ($M = 17.64, SD = 4.997$). The magnitude of the differences in the means (mean difference = -2.437, 95% CI: -4.27 to -0.599) was significant. Hence, H0 was rejected.

Table 4 shows the independent sample t test between the first year and final year students

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Significance		Mean Difference	Std. Error Difference	Lower	Upper
						One-Sided p	Two-Sided p				
PSS	Equal variances assumed	.180	.673	-2.628	112	.005	.010	-2.437	.927	-4.274	-.599
	Equal variances not assumed			-2.618	103.8	.005	.010	-2.437	.931	-4.283	-.591

DISCUSSION

This research aimed to investigate stress levels among students enrolled at the central university of Andhra Pradesh. The study also aimed to find out the coping mechanisms used by the students which falls into three categories: Problem Focused, Emotion Focused and Avoidant Coping. The Statistical analysis used to determine the Coping Strategies and Stress was Pearson Correlation. The Perceived Stress was correlated with different coping strategies and the results was tabulated as shown in table 1,2 and 3.

An analysis of the connection between Perceived Stress and Problem Focused coping is presented in Table 1, utilizing data from 114 participants. The Pearson Correlation coefficient (r) was employed to assess the relationship's intensity and direction. The resulting correlation coefficient of -0.34 between Perceived Stress and Problem focused coping was found to be statistically insignificant (p=.716), suggesting no substantial link between these variables. The data does not support a significant association between perceived stress and problem focused coping in this sample. Table 2 investigates the relationship between Perceived Stress and Emotion focused coping using the same sample size. A correlation coefficient of 0.260 was found between Perceived Stress and Emotion Focused coping, which is statistically significant at the 0.1 level. This indicates a positive association between the two variables, suggesting that individuals are more likely to employ emotion focused coping strategies as their perceived stress increases. In essence, people experiencing higher stress levels tend to manage their stress by addressing their emotions and thoughts related to the stressful situation. The connection between Perceived Stress and Avoidant coping is examined in Table 3, using the same 114 participants. The correlation coefficient between these variables is 0.349, which is statistically significant at the 0.1 level (p<.001). This signifies a positive relationship between perceived stress and avoidant coping. The findings suggest that as perceived stress rises, individuals are more prone to engage in avoidant coping strategies. In general terms, people experiencing higher stress levels are more likely to cope by avoiding or withdrawing from stressful situations. This study also compared stress perception levels between first-year and final-year students. An independent

sample t-test was conducted to explore this further. The null hypothesis stated that there was no significant difference in stress perception between the two groups. Table 4 displays the t-test results; the negative t-value (-2.628) indicates that first-year students experience lower stress levels. The two-sided p-value of 0.010, being less than the conventional 0.05 level, allows for the rejection of the null hypothesis.

This research also explored the factors contributing to stress among 114 students focusing on both internal and external factors. 25.4% of the students reported the internal cause of stress which included students' personality, thinking patterns like overthinking and negative thinking, irrational beliefs, health conditions, Time Management issues etc. 36.0% of the students reported external causes of stress which comprises workload, high expectations from family members, difficulty in adjusting to academic demands, lack of social support, poor interpersonal relationships, financial difficulties etc. 19.3% of the students reported the cause of stress is both internal and external. Moreover, 19.3% of students chose not to respond about their cause of stress. Notably there was some overlap between students who reported internal and external causes of their stress (19.3%) demonstrating the complexity that may be involved in understanding academic related and anxiety among students.

CONCLUSION

The research examining the connection between Perceived stress and Problem focused coping revealed no significant correlation in the sample studied. This outcome may be attributed to various factors, including individual coping strategy differences, cultural influences, or specific stressor characteristics. Additionally, a relationship was observed among Perceived stress, emotion focused coping, and problem focused coping. The results indicate a notable link between these variables, suggesting that highly stressed individuals often employ emotion focused coping mechanisms and withdraw from stressful situations to avoid discomfort. Although Avoidant coping may offer short-term relief, it is generally considered less effective in the long run and can lead to negative outcomes such as chronic stress, anxiety, and depression. The independent t test analysis results show a significant difference in perceived stress levels between the two groups, with first-year students experiencing significantly lower perceived stress compared to final-year students.

An examination of the factors in this study highlights the complex nature of stress among students. With many participants reporting both internal and external causes, it is crucial for educational institutions to create an environment that comprehensively addresses these diverse factors. This approach can contribute to improved student well-being and academic performance.

FUTURE RECOMMENDATIONS

- Universities could develop tailored workshop on effective coping strategies, they could also emphasize problem focused approaches alongside emotion focused and avoidant coping
- The significance can be given to longitudinal studies to assess the long-term effects of stress and different coping strategies on academic performance and other areas.
- Establish healthy peer and interpersonal relationship to foster social support, encouraging students to share their coping techniques.
- Provide workshops focusing on stressors and coping mechanisms particularly to final year students who are about to face significant transition.

LIMITATIONS

- The sample size was relatively small and the study was conducted across one university.
- The sample may not represent all university students, particularly those from different backgrounds, limiting the generalizability of the finding.
- The research uses correlational design; hence it does not allow causal inferences, meaning that the relationship between perceived stress and coping strategies were determined, it cannot employ cause and effect dynamics.

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