

Original Research Article

Assessing the strategies for coping with academic stress among the undergraduate students of TNAU

ABSTRACT

Aims: College students experience stress from many different sources that ultimately have an impact on their academics. In order to cope with the academic stress, it is needed for them to undertake appropriate coping strategies. This study aimed to identify the extent of various strategies used among the students to cope with the academic stress and to compare coping strategies used by the male and female students.

Study design: Ex post facto research design was used in this study.

Place and Duration of Study: Study area: Four Constituent colleges of Tamil Nadu Agricultural University viz., Coimbatore, Madurai, Trichy and Killikulam. Sample: Third year B.Sc. (Hons.) Agriculture Undergraduate degree programme students.

Methodology: Sample: 180 students (90 male and 90 female) from the four colleges were chosen based on employing proportionate random sampling. The coping strategies were classified into five categories namely the relaxation, social support, personal, diet and exercise and psychological strategies. The most preferred coping strategies were identified by computing mean scores and z – test was employed to find the gender difference in terms of major stress coping strategies.

Results: The findings from the study showed that listening to music, seeking out friends for conversation, consulting with parents and relatives, using past experience to handle problems, getting enough sleep, look at the bright side of the things with mean scores of 2.48, 2.3, 2.29, 2.37, 1.99 and 2.35 respectively. There also existed a significant difference between male and female undergraduate students with regard to relaxation and personal strategies at 1% significance level.

Conclusion: It could be concluded that the students should regularly be encouraged and motivated to get involved and take up better-suited and also scientifically approved coping strategies to handle and get relieved from their academic stress.

Keywords: Stress; Academic stress; Undergraduate Students; Coping strategies.

1. INTRODUCTION

Modern life moves at a faster pace than ever before. We are frequently overwhelmed by the huge list of things to do each day. Stress has become a part of our daily life, and it affects everyone. A study by Ansbaugh, Hamrick and Rosato (2003) [1] found that stress takes different forms and affects different types of people at different ages and walks of life. It's a unique experience. What may appear to be a straightforward encounter to one person may be a source of worry for another. Stress has become an important topic in academic circles. Students today are facing new challenges in education, calling for greater effort from students. Young students, 15 to 22 years of age, are often more vulnerable to academic stress as they experience a transition in life [2]. The term "stress" refers to an individual's

internal state as a result of an infuriating or unpleasant situation. According to Selye (1980) [3], stress is caused by physiological, psychological, and environmental demands.

Academic stress is a mental distress with respect to some anticipated frustration associated with academic failure or even unawareness of the possibility of such failure [4]. Over the last few years, academic pressure has intensified; students must undergo tests, coursework, and a variety of other activities. Expectations are also raised for students to be all-rounders. Students' move from high school to university or college is a significant milestone in their lives. The stress experienced by male and female students is also different under various circumstances. Learning to manage stress may help students cope with everyday social and academic pressures, and have a better college experience. Having to cope with stress is critical in order for students to attempt to manage the waves and sail through. Coiro, Bettis, and Compas (2017) [5] explained that successful coping involves an accurate understanding of the level of control over the stressor as well as selecting an appropriate coping mechanism to handle the stressor. College students tend to utilise "healthy" coping mechanisms like listening to music, socialising with friends or family, sitting alone in a quiet place and exercising [6].

Agriculture being the backbone of our nation, is important to look after the stress faced by the upcoming undergraduate students studying agriculture courses since they are believed to improve the economy and well-being of society. The present study was conducted with the aim of achieving the following objectives: to identify the extent of various strategies used among the students to cope with academic stress and to compare coping strategies used by male and female students to overcome academic stress.

2. METHODOLOGY

Ex post facto research design was used for this study. The study was purposively selected and conducted in the Constituent colleges of Tamil Nadu Agricultural University (TNAU) and among the third-year Agricultural students. The four campuses viz., Agricultural College & Research Institute Coimbatore, Agricultural College & Research Institute Madurai, Agricultural College and Research Institute Killikulam and Anbil Dharmalingam Agricultural College and Research Institute Trichy offering B.Sc. (Hons.) Agriculture degree programme were taken. The third-year students (2019 – 2023 batch) were chosen for the study because they are in the process of deciding and finalizing their future after completing their degree programme. It was also assumed that they would be able to better analyze the stress they had experienced in their academics in their previous semesters and provide a better coping activity. Among the 530 students who had registered in the B.Sc. (Hons.) Agriculture degree programme at TNAU's selected four Constituent colleges, 180 students which is almost one third of the population were decided to be selected and fixed as respondents. Boys and girls were taken in equal numbers (90 boys and 90 girls) to ensure equality by using the proportionate random sampling method.

A well-structured and pre-tested interview schedule was used to collect data. The scale developed and followed by Anjali Negi (2018) [7] for managing stress was taken with slight modification for the study. The responses of the students were scored on a three-point scale: Always, Sometimes and Never. The extent of stress coping strategies was determined by computing mean scores for each item connected to the relevant outcomes, which are summarized below. The male and female were compared using z-test.

3. RESULTS AND DISCUSSION

3.1 Extent of Stress coping strategies

Coping is seen as a stabilizing factor that may support an individual in psychosocial adaptation during stressful situations [8]. To obtain the results based on the objective, the various stress coping strategies of students for handling stress were reported in terms of the five categories namely: relaxation strategies, social support strategies, personal strategies, diet and exercise strategies and psychological strategies.

3.1.1 Relaxation strategies

The Relaxation strategies refer to the methods or activities that students use to relieve themselves from stressful situations. A total of 11 items were considered under this strategy.

From the data in Table [1], it could be understood that the most preferred relaxation techniques among Undergraduate students was “listening to music” with a mean score of 2.48, followed by “taking a nap” and “going for a walk or drive” with mean scores of 2.23 and 2.13, respectively. The relaxation strategies “do yoga or meditation” and “write problem in diary” were the least used with mean scores of 1.61 and 1.52 respectively.

It was observed from the findings of the study that the obtained results were in congruence with the result of the study conducted by Anjali Negi and Knawaljit Kaur (2018) [9] where students preferred listening to music as the major coping activity to release their stress and doing yoga was the least preferred one.

Table 1. Distribution of respondents according to the usage of Relaxation strategies to overcome Academic stress

n=180					
S. No	Relaxation Strategies	Extent of relaxation strategies			Mean score
		Always f (%)	Sometimes f (%)	Never f (%)	
1	Listen to music	93 (51.7)	82 (45.6)	5 (2.8)	2.48
2	Watch favourite TV serials	30 (16.7)	94 (52.2)	56 (31.1)	1.85
3	Go out for movies	22 (12.2)	93 (51.7)	65 (36.1)	1.76
4	Take a nap	62 (34.4)	99 (55)	19 (10.6)	2.23
5	Read favourite novels and books	31 (17.2)	94 (52.2)	55 (30.6)	1.86
6	Go for a walk or drive	36 (20)	84 (46.7)	60 (33.3)	2.13
7	Travel on holidays	40 (22.2)	92 (51.1)	48 (26.7)	1.95
8	Write problem on a dairy	18 (10)	59 (32.8)	103 (57.2)	1.52
9	Spend time with loved ones	58 (32.2)	77 (42.8)	45 (25)	2.07
10	Join various recreational activities	22 (12.2)	99 (55)	59 (32.8)	1.79
11	Do yoga / Meditation	13 (7.2)	85 (47.2)	82 (45.6)	1.61

3.1.2 Social support strategies

The Social support strategies are the social activities that students engage in to seek assistance during stress. A total of 7 items were considered under this strategy.

From the data in Table [2], it could be interpreted that the most preferred social support strategies among students were “seek out friends for conversation” and “consult with parents and relatives” with mean scores of 2.3 and 2.29 respectively. “Getting professional counselling” was the least used social support strategy used by the students with a mean score of 1.51.

Thus, seeking out friends, parents and relatives for conversation and consultation were found to be major social support strategies preferred among the students. The results obtained were also found to be in congruence with the findings from the study conducted by Chew *et al* (2003) [10] .

Table 2. Distribution of respondents according to the usage of social support strategies to overcome Academic stress

S. No	Social support Strategies	Extent of Social support strategies			
		Always f (%)	Sometimes f (%)	Never f (%)	Mean score
1	Seek out friends for conversation	68 (37.6)	98 (54.1)	14 (7.7)	2.30
2	Go out for shopping with friends	47 (26)	92 (50.8)	41 (22.7)	2.03
3	Consult with parents and relatives	82 (45.3)	69 (38.1)	29 (16)	2.29
4	Join in supportive groups	28 (15.5)	75 (41.4)	77 (42.5)	1.72
5	Get professional counselling	15 (8.3)	63 (34.8)	102 (56.4)	1.51
6	Online chatting	42 (23.2)	80 (44.2)	75 (41.4)	1.93
7	Visit relatives	25 (13.8)	80(44.2)	75 (41.4)	1.72

3.1.3 Personal strategies

Those activities through which students engage themselves on a personal level to cope with stressful situations are personal strategies that are adopted to overcome the academic stress. A total of 16 items were considered under this strategy.

The data represented in the Table [3] showed that the most preferred personal strategies among students were “Use past experience to handle problems” with mean score of 2.37 and is followed by “Making plan of action” and “Sit alone in peaceful outdoors” with mean scores 2.33 each. It was also found that the least coping activities preferred by the students to overcome their stress were “Joining in religious activities and going on a pilgrimage” both with mean score of 1.74 and “ writing poetry” with mean scores of 1.59.

The findings are validated by the study conducted by Sami *et al* (2011) [11] in designing plan of action for coping activity.

Table 3. Distribution of respondents according to the usage of personal strategies to overcome Academic stress

S. No	Personal Strategies	Extent of Personal strategies			
		Always f (%)	Sometimes f (%)	Never f (%)	Mean score

1	Reset priorities and eliminate time wasting activities	62 (34.4)	106 (58.9)	12 (6.7)	2.27
2	Work on a hobby	48 (26.7)	106 (58.9)	26 (14.4)	2.12
3	Sit alone in peaceful outdoors	79 (43.9)	82 (45.6)	19 (10.6)	2.33
4	Writing poetry	19 (10.6)	69 (38.3)	92 (51.1)	1.59
5	Organizing desk or work area	48 (26.7)	84 (46.7)	48 (26.7)	2.00
6	Reading religious books	27 (15)	54 (30)	99 (55)	1.60
7	Joining in religious activities	31 (17.2)	71 (39.4)	78 (43.3)	1.74
8	Go to pilgrimage	29 (16.1)	75 (41.7)	76 (42.2)	1.74
9	Pray daily	50 (27.8)	91 (50.6)	39 (21.7)	2.06
10	Try to anticipate worst possible outcomes	36 (20)	107 (59.4)	37 (20.6)	1.99
11	Reframe problems	37 (20.6)	106 (58.9)	37 (20.6)	2.00
12	Set realistic goals	64 (35.6)	103 (57.2)	13 (7.2)	2.28
13	Make plan of action	75 (41.7)	91 (50.6)	14 (7.8)	2.33
14	Try to come up with different possible solutions	61 (33.9)	109 (60.6)	10 (5.6)	2.28
15	Use past experience to handle problems	82 (45.6)	83 (46.1)	15 (8.3)	2.37
16	Fixing study hours	45 (25)	113 (62.8)	22 (12.2)	2.12

3.1.4 Diet and Exercise strategies

Diet and exercise strategies are referred to as those numerous activities that students engage in to control their nutrition and body. A total of 5 items were considered under this strategy.

Data from the Table [4] show that the major strategy that was undertaken by the students to overcome their stress were "Getting enough sleep" with mean score 1.99 and was followed by "taking balanced diet" with the mean score of 1.94. The least preferred coping activity was "Consuming food more than usual" with the mean score of 1.70.

Table 4. Distribution of respondents according to the usage of Diet and Exercise strategies to overcome Academic stress

S. No	Diet and Exercise Strategies	n=180			
		Extent of Diet and Exercise strategies			Mean score
		Always f (%)	Sometimes f (%)	Never f (%)	
1	Take balanced diet	35 (19.4)	100 (55.6)	45 (25)	1.94
2	Practice breathing exercise	24 (13.3)	84 (46.7)	72 (40)	1.73
3	Get enough sleep	42 (23.3)	95 (52.8)	43 (23.9)	1.99
4	Drink lot of caffeinated beverages like tea and coffee	42 (23.3)	81 (45)	57 (31.7)	1.91
5	Consuming food more than usual	23 (12.8)	81 (45)	76 (42.2)	1.70

3.1.5 Psychological Strategies

From the 11 items selected under this strategy for the study, it is found from the Table [5] that the most preferred psychological strategies by the students were “look at the bright side of the things” with the mean score of 2.35 and is followed by “accept things that are out of control or wait for the time to change” and “use experience of other people to deal with problems” with the mean score of 2.25 and 2.24 respectively. It was also found that “yelling at friends and people”, “have plants in the room” and “blame others” were least preferred strategies with the mean scores of 1.87, 1.75 and 1.47 respectively.

Table 5. Distribution of respondents according to the usage of psychological strategies to overcome Academic stress

S. No	Psychological Strategies	Extent of Psychological strategies			Mean score
		Always f (%)	Sometimes f (%)	Never f (%)	
1	Look on the bright side of the things	77 (42.8)	89 (49.4)	14 (7.8)	2.35
2	Change the outlook of the problem	48 (26.7)	118 (65.6)	14 (7.8)	2.18
3	Accept things that are out of control/ Wait for the time to change	67 (37.2)	92 (51.1)	21 (11.7)	2.25
4	Use experience of other people to deal with problems	61 (33.9)	102 (56.7)	17 (9.4)	2.24
5	Day dream	50 (27.8)	90 (50)	40 (22.2)	2.05
6	Have plants in the room	30 (16.7)	76 (42.2)	74 (41.1)	1.75
7	Being assertive	31 (17.2)	118 (65.6)	31 (17.2)	2.00
8	Yell at friends and people	28 (15.6)	101 (56.1)	51 (28.3)	1.87
9	Procrastinate work and duties	25 (13.9)	112 (62.2)	43 (23.9)	1.90
10	Cry excessively	31 (17.2)	98 (54.4)	51 (28.3)	1.88
11	Blame others	13 (7.2)	59 (32.8)	108 (60)	1.47

As a result, from the Table [6], it is possible to conclude that the most preferred coping strategy by the students among the five different strategies taken for the study, has personal strategies, which ranked first and is followed by relaxation strategies, based on computing average mean score. Diet and exercise methods, on the other hand, were the least preferred coping strategies among students. This clearly showed that students indulge themselves highly in stress-relieving activities in order to cope with the academic stress experienced by them.

Table 6. Ranking of coping strategies

S. No:	Coping strategies	Mean score (Avg)	Rank
1	Relaxation strategies	1.94	II
2	Social support strategies	1.93	III
3	Personal strategies	2.05	I
4	Diet and exercise strategies	1.85	V
5	Psychological strategies	1.90	IV

3.2 Comparison between Male and Female students in terms of major stress coping strategies

The computed data represented in the Table [7], revealed significant differences in terms of major stress coping strategies among the undergraduate students based on their gender at 1% level of significance (p value = <0.01) in case of relaxation and personal strategies used by undergraduate male and female students to cope up their academic stress. Others like the social support strategy, diet and exercise strategy and the psychological strategy showed no significant difference between the male and female students.

Table 7. Comparison between Male and Female students in terms of major stress coping strategies

n=180					
S.No:	Coping strategies	Male (90) (mean)	Female (90) (mean)	Z value	P value
1	Relaxation strategies	23.65	18.95	10.24	.000**
2	Social support strategies	13.50	13.55	-0.12	.89 ^{NS}
3	Personal strategies	34.38	31.46	3.50	.000**
4	Diet and exercise strategies	9.50	9.08	1.28	.19 ^{NS}
5	Psychological strategies	22.30	21.66	1.21	0.22 ^{NS}

** : Significant at 0.01 (1%) level of probability

NS: Non-significant

4. CONCLUSION

Listening to music, taking a nap, going for a walk or driving as a relaxation strategy, consulting with parents and relatives as a social support strategy, using past experience to handle problems, making a plan of action, sitting alone in a peaceful environment as a personal strategy, getting enough sleep and eating a balanced diet as a diet and exercise strategy, and psychological strategies such as looking on the bright side, accepting the things that are out of control, and using past experience to handle the problems were found to be the most preferred coping activities among the undergraduate students. In terms of relaxation and personal strategies, it was discovered that there are significant differences in major stress coping strategies among undergraduate agriculture degree programme students based on their gender. The findings from the study showed that undergraduate students performing in agriculture degree programmes were highly indulged in utilizing

various stress relieving activities to cope with the academic stress that needs to be handled by them over the period of completion of their degree.

It is necessary to motivate the students to adopt even the least preferred positive coping strategies for their betterment. The students could also be encouraged to participate in stress management courses consisting of Relaxation, Positive outlook towards works / responsibilities, Self-analysis through personality type test, Inter personal skill development, Protection yoga cum meditation and time management [13].

REFERENCES

1. Ansbaugh D, Hamrick M, Rosato F. Wellness: Concepts and applications. 5th ed. New York: McGraw-Hill; 2003.
2. Reddy KJ, Menon KR, Thattil A. Academic Stress and its Sources Among University Students. Biomedical and Pharmacology Journal. 2018;11(1):531-537.
3. Selye H. The stress concept today. Jossey-Bass: Sanfrancisco; 1980
4. Gupta K and Khan B. A Study of the Trait, Anxiety, Psychological Stress and Intelligence on state and Performance. Indian Abstract. 1987;3(7):360-365.
5. Coiro M, Bettis A, Compas B. College students coping with interpersonal stress: Examining a control-based model of coping. Journal of American College Health. 2017;65(3):177-186.
6. Kelsey Gallagher M, Tiara Jones R, Nicole Landrosh V, Samuel Abraham P, Deborah Gillum R. College Students Perceptions of Stress and Coping Mechanisms. Journal of Education and Development. 2019;3(2):25-34.
7. Anjali Negi. Exploratory study of perceived stress among students of selected state Agricultural universities (SAUs) of Northern India. Krishikosh. Doctoral thesis. Punjab Agricultural College. Ludhiana. 2018.
8. Bamuhair S, Farhan A, Althubaiti A, Agha S, Rahman S, Ibrahim N. Sources of Stress and Coping Strategies among undergraduate Medical Students Enrolled in a Problem-Based Learning Curriculum. Hindawai Publishing Corporation. Journal of Biomedical Education. 2015:1-8.
9. Anjali Negi and Knawaljit Kaur. Stress Coping Strategies used by Students of State Agricultural Universities (SAUs) of Northern India. Indian Journal of Extension Education. 2018;54(1):161-167.
10. Chew-Graham CA, Rogers Aand Yassin N. I would not want it on my CV or their records: Medical students' experiences of help-seeking for mental health problems. Medical Education. 2003;37:873-880.
11. Sami A Radman Al-Dubai, Redhwan AAl-N, Mustafa AA, Krishna GR. Stress and Coping Strategies of Students in a Medical Faculty in Malaysia. 2011;18(3):57–64.

12. Hemamalini R, Ashok V, Sasikala V. A Study on Stress Management and its Impact among Students. International Journal of Academic Research in Economics and Management Sciences. 2018;7(3):101–110.

UNDER PEER REVIEW