

A Study on Stress, Health and Coping Strategies among Intermediate Students at Guntur and Krishna Districts, AP

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ABSTRACT

The present study is concerned with the study of relationship between student stress and various demographic variables, to make a comparative study on stress experienced by intermediate students belonging to different groups that are M.P.C, Bi.P.C, M.E.C & C.E.C, the effect of stress on physical and mental health of the intermediate students, and coping styles adopted by students to reduce their stress levels. A sample of 1000 intermediate students were drawn randomly from Guntur and Krishna Districts of Andhra Pradesh. It was observed that there is a significant association between demographic variables such as gender, type of stay, parents occupation, parents annual income and Stress of Intermediate students and it was observed that among the mean differences, the difference in stress levels experienced between Bi.P.C group and C.E.C group was higher and majority of the students experienced major health problems in the course period. It was also observed that majority of the respondents balance their work, rest and play and prefer to pray god in stressful situation. And most of the respondents chat with friends and play games as stress coping mechanisms.

Keywords: Student stress, Physical and Mental Stress, Coping Styles.

INTRODUCTION:

Student life is exciting but it can also be very pressured and stressful as it is a transitional period. It also involves many challenges at a practical level. A high stress level may affect not only academic performance but also all aspects of student's physical and mental health. Hans Selye originally suggested that stress is simply the rate of wear and tear in the body. Stress is a part of day-to-day living. It is a common human phenomenon and part of life as a college student. As college students they may experience stress meeting academic demands, adjusting to a new living environment, or developing friendships. Mild forms of stress can act as a motivator and energizer.

Teenagers often have stress in their lives. Whether caused by the loss of a friend or loved one, a recent move, being teased or bullied, difficulties at home, or problems at school, childhood stress can lead to behavioral problems, anxiety, depression, headaches, drug use, and insomnia, among many other symptoms and medical problems. However, if stress level is too high, medical and social problems can result.

REVIEW OF LITERATURE:

K. Jayasankara Reddy, Karishma Rajan Menon and Anjana Thattil (2018) in their article found that stress has become part of students' academic life due to the various internal and external expectations placed upon their shoulders. Adolescents are particularly vulnerable to the problems associated with academic stress as transitions occur at an individual and social level. It therefore, becomes imperative to understand the sources and impact of academic stress in order to derive adequate and efficient intervention strategies. The five dimensions of sources such as personal inadequacy, fear of failure, interpersonal difficulties with teachers, teacher pupil relationship

and inadequate study facilities were further analysed and gender differences were also obtained. Understanding the sources of stress would facilitate the development of effective counselling modules and intervention strategies by school psychologists and counsellors in order to help students alleviate stress.

Mohammed Amin Wani, Dr. R. Sankar (2016) the study investigated the effect of gender and faculty on stress, anxiety and depression. Further the study also strived to find the level of stress, anxiety and depression among boys and girls; science and arts students. The results revealed both gender and faculty have significant effect on stress, anxiety and depression as all obtained “F” ratio’s was found significant at 0.05 level of significance and on the basis of the findings the study it is found that both gender and faculty are influential factors in stress, anxiety and depression.

Sibnath Deb, Esben Strodl, Jiandong Sun (2015) in their work investigated the academic stress and mental health of Indian high school students and the associations between various psychosocial factors and academic stress. Academic stress was positively correlated with parental pressure and psychiatric problems, while examination-related anxiety also was positively related to psychiatric problems. Academic stress is a serious issue which affects nearly two thirds of senior high school students in Kolkata. Potential methods for combating the challenges of academic pressure are suggested.

Sangeeta Chaudhary and Priya Mary Joseph (2010) conducted a study on adolescent’s perceptions on coping with stress in middle income group. The results revealed that across the four domains, adolescents perceive parental support for their adaptive coping styles, whereas for adaptive coping, adolescents perceive guidance or no support. However, adolescent girls have perceived parents to be stricter with boys especially in academics.

The study conducted by Jigisha Gala and Sangeeta Chaudhary (2004) on seventeen to eighteen years old adolescents revealed that academics is the major stressor. Adolescents cope with stress in distinct ways; Two major ways to cope with stress one way is problem solving. This involves trying to deal with the problem. Another way of handling stress is managing emotions. This involves wielding the thoughts and feelings caused by the problem. Adolescents use both methods, and both can be effective, depending on the situation. Most adolescents seek help from their parents, as the parents are perceived to be understanding and supportive.

OBJECTIVES OF THE STUDY:

The following are the objectives of the present study.

- To Study the Relationship between Student Stress and various Demographic Variables.
- To make a Comparative Study on Stress Experienced by Intermediate Students Belonging to Different Groups.
- To study the effect of stress on physical and mental health of the students.
- To study the coping styles adopted by the students to reduce their stress levels.

METHODOLOGY:

The population for the present study consists of Intermediate students belonging to Guntur and Krishna Districts of Andhra Pradesh. The total population was first stratified on the basis of different groups that are M.P.C, Bi.P.C, M.E.C & C.E.C. The sample was selected from 18 colleges (9 colleges from Guntur District and 9 colleges from Krishna District). For the purpose of present study 1650 questionnaires were administered to the students and only 1000 questionnaires (M.P.C-340, Bi.P.C-250, M.E.C-225 and C.E.C-185) were returned which were filled in all respects. Data was collected with the help of a well designed questionnaire. Analysis was done with the help of simple percentages and averages. The questions were formulated based on the factors which were arrived from a pilot study of stress among students carried out on a sample of 100 students.

Objective I:

To Study the Relationship between Student Stress and various Demographic Variables.

The following hypothesis was framed for the study.

H₀: There is no significant association between Demographic variables such as gender, type of stay, parents occupation, parents annual income and Stress of Intermediate students.

H_a: There is a significant association between Demographic variables such as gender, type of stay, parents occupation, parents annual income and Stress of Intermediate students.

Chi-square, t – test and Karl Pearson’s Correlation were computed to examine the relation between Stress and Demographic Variables such as Gender, Course studying, Type of stay, Parents Occupation and Annual Income of the Parents.

Association between Student Stress, Gender and Parents Occupation:

Chi – square test was done to know the association between Gender, Parents Occupation and Stress.

Table 1.1 Association between Student Stress, Gender and Parents Occupation

Demographic Variables	Chi – Square
Gender Vs Stress	276.867
Fathers Occupation Vs Stress	992.946
Mothers Occupation Vs Stress	443.962

The above table shows the association between student stress and various demographic variables such as Gender, Father's Occupation and Mother's Occupation.

- The Chi-Square value for Gender and Stress was $\chi^2 = 276.867$, which shows that there is a significant association between Gender and Student Stress.
- The Chi-Square value for Fathers Occupation and Stress was $\chi^2 = 992.946$, which showed that there is a significant association between Fathers Occupation and Student Stress.
- The Chi-Square value for Mothers Occupation and Stress was $\chi^2 = 443.962$, which showed that there is a significant association between Mothers Occupation and Student Stress.

Relationship between Student Stress and Type of Stay:

t – test was done to show the relation between Stress and Type of stay i.e Hostlers and Day scholars.

Table: 1.2 Relationships between Student Stress and Type of Stay

Group Statistics					
	Level of Stress	N	Mean	Std. Deviation	Std. Error Mean
H/D	Hostlers	215	2.00	.000	.000
	Day scholars	433	1.97	.183	.009

From the above table it is observed that the mean level of stress among Hostlers was 2.00 and mean level of stress among Day scholars was 1.97

Table 1.2.1: t-test for Measuring Difference between Mean Stress levels of Hostlers and Day Scholars

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	T	Df
H/D	Equal variances assumed	33.099	.000	2.773	646
	Equal variances not assumed			3.937	432.000

The t – test value for Day scholars/Hostlers and Stress was $t = 2.773$, which showed that there was a significant difference in the Stress experienced by Day scholars and Hostlers.

Relationship between Student Stress and Annual Income of the Parents:

Karl Pearson Correlation was done to show the relationship between Student Stress and Annual Income of the Parents.

Table 1.3: Relationship between Student Stress and Annual Income of the Parents

		Annual Income	Level of stress
Annual Income	Pearson Correlation	1	-.616**
	Sig. (2-tailed)		.000
	N	1000	1000
Level of stress	Pearson Correlation	-.616**	1
	Sig. (2-tailed)	.000	
	N	1000	1000
**. Correlation is significant at the 0.01 level (2-tailed).			

The above table shows the correlation between Annual Income of Parents and Level of Stress experienced by the students. The r value was found to be -0.616** at 0.01% level of significance, which indicates that there is a significant association between Stress and Annual Income of Parents.

Therefore based on the above results, the null hypothesis was rejected as the Stress experienced by the students and Demographic Variables such as Gender, Parents Occupation, Type of Stay and Annual Income of Parents were significantly related to each other.

Objective – II:

To make a Comparative Study on Stress Experienced by Intermediate Students Belonging to Different Groups. The following hypothesis was framed for the study.

H₀ : There is no significant difference in the level of stress experienced by intermediate students belonging to different groups.

H_a : There is a significant difference in the level of stress experienced by intermediate students belonging to different groups.

ANOVA was computed to test the variance in the level of stress among the students belonging to four different courses such as M.P.C, Bi.P.C, M.E.C and C.E.C. The ANOVA results pertaining to the difference in stress among students of different courses are presented below.

Table 2.1 Analysis of Variance in Stress Levels of Intermediate Students Belonging to Different Groups

ANOVA					
Source of Variation	SS	Df	MS	F	Sig
Between Groups	130.382	3	43.461	103.594	.000
Within Groups	417.849	996	0.420		
Total	548.231	999			

From the results of the above table, it is found that the level of stress experienced by the Intermediate students significantly differed in different groups as the F – value (F=103.594, p<0.05) was found to be highly significant. Hence there is enough evidence to reject null hypothesis.

Post – hoc tests is done to find out the mean difference at each level:

**Table: 2.2 Post hoc tests (Multiple Comparisons)
Level of Stress**

(I) Course	(J) Course	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
MPC	BiPC	-.590 [*]	.045	.000	-.71	-.47
	MEC	.229 [*]	.060	.001	.07	.39
	CEC	.415 [*]	.066	.000	.24	.59
BiPC	MPC	.590 [*]	.045	.000	.47	.71
	MEC	.819 [*]	.057	.000	.67	.97
	CEC	1.005 [*]	.063	.000	.84	1.17
MEC	MPC	-.229 [*]	.060	.001	-.39	-.07
	BiPC	-.819 [*]	.057	.000	-.97	-.67
	CEC	.186	.075	.078	-.01	.38
CEC	MPC	-.415 [*]	.066	.000	-.59	-.24
	BiPC	-1.005 [*]	.063	.000	-1.17	-.84
	MEC	-.186	.075	.078	-.38	.01

*. The mean difference is significant at the 0.05 level.

From the above table it is observed that among the mean differences, the difference in stress levels experienced between Bi.P.C group and C.E.C group was higher.

Objective III:

To Study the Effect of Stress on the Physical and Mental Health of Intermediate Students

In order to analyze the above objective the following analysis was done.

Null hypothesis framed for the study is as follows.

H₀: There is no significant effect of stress on physical and mental health of Intermediate students.

H_a: There is a significant effect of stress on physical and mental health of Intermediate students.

Simple Regression Analysis was done to analyze the extent to which stress had an impact on the physical and mental health of the students.

**Table 3.1: Regression Analysis of Stress on Physical and Mental Health Variables
Model Summary**

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
dimension0	1	.687 ^a	.472	.471	2.965

From the above table it is observed that 68.7% of students physical and mental health problems were due to the stress experienced by them.

In order to check the significance of the regression, ANOVA was computed.

**Table: 3.2 Significance of Regression Analysis
ANOVA^b**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7831.490	1	7831.490	890.671	.000 ^a
	Residual	8775.214	998	8.793		
	Total	16606.704	999			

a. Predictors: (Constant), LEVEL OF STRESS

b. Dependent Variable: HEALTH PROBLEM

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.041	.286		52.513	.000
	Level of Stress	-3.780	.127	-.687	-29.844	.000

a. Dependent Variable: HEALTH PROBLEMS

The Regression analysis of Health problems and Level of Stress is shown in the following equation.

Regression Equation:

$$Y = a + b x$$

$$\text{Health problems} = 15.041 - 3.780 (\text{Stress})$$

From the results of the above table, it is found that stress had a significant impact on the physical and mental health of the students as the F-value ($F=890.671$, $p<0.05$) was found to be highly significant. Hence the null hypothesis was rejected.

Objective – IV:

To Study the Coping Styles Adopted by the Students to Reduce their Stress Levels

Null hypothesis framed for the study is as follows.

H_0 : There is no significant difference in the coping styles adopted by the students to reduce their stress levels.

H_a : There is a significant difference in the coping styles adopted by the students to reduce their stress levels.

Table 4.1: Regression Analysis of Coping Styles adopted by Students to Reduce Stress.

Model Summary

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
A, medita	1	.471 ^a	.222	.221	.654

a. Predictors: (Constant), COPING MECHANISMS

From the above table it is observed that there is a significant difference in the coping style adopted by 47.1% of the students to reduce their stress levels.

In order to check the significance of the regression, ANOVA was computed.

**Table: 4.2 Significance of Regression Analysis
ANOVA^b**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.733	1	121.733	284.855	.000 ^a
	Residual	426.498	998	.427		
	Total	548.231	999			

a. Predictors: (Constant), COPING MECHANISMS

b. Dependent Variable: LEVEL OF STRESS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.007	.113		35.556	.000
	Coping Mechanisms	-.444	.026	-.471	-16.878	.000

a. Dependent Variable: LEVEL OF STRESS

$$Y = 35.556 - 16.878 (\text{Cop Mech})$$

The above table shows the result of regression. The calculated F – ratio (284.855) is significant at 0.05 level. R-value = 47.1% of the dependent variable stress is explained by the coping mechanisms like yoga, meditation, physical exercises, walking, chatting, playing games and others.

From the results it is found that there is a significant difference in the coping styles adopted by the students to reduce their stress levels as the F-value ($F=284.855$, $p<0.05$) was found to be significant. Hence there is enough evidence to reject null hypothesis.

CONCLUSION:

The study shows that there is a significant relationship between stress experienced by intermediate students and the effect on physical and mental health of the students. It shows that there is a high significant relationship between academic stress and parent's expectations of science group towards the studies. Different stress management techniques such as meditation, support groups, games etc., help in better adoption of coping skills, improved knowledge of stress and enhanced ability to resolve conflicts (Shapiro et al., 2000). 'Stress management' and 'Time management' taught along with first and second year curricula may assist students in dealing with stress due to study loads (Lee & Graham, 2001). Health education programs, mentorship and extracurricular activities can be important strategies to enable undergraduates cope better with the demands of this tertiary level of education. There is a definite need for regular surveys to be undertaken to monitor the levels of health among youth, especially the students, whose well-being guarantees the future.

REFERENCES:

- By Guy Brandonon (November 20, 2010) Under Applied Psychology, Guest Posts, Health and Clinical 17 Comments http://www.it-tallaght.ie/contentfiles/Documents/counsellor/stress_management.pdf
- Verma, S., & Gupta, J. (1990). Some aspects of high academic stress and symptoms. *Journal of Personality and Clinical Studies*, 6, 7-12.
- Jigisha Gala and Sangeeta Chaudhary (2004). Coping with Stress among Indian Adolescents belonging to the High Income Group. Department of Human Development and Family Studies. Maharaja Sayajirao University, Baroda. <http://ipi.org.in/texts/ipyc/ipyc-full/s-jgala.php>
- Sangeeta Chaudhary and Priya Mary Joseph (2010). Adolescents perceptions about coping with stress: A Qualitative view from India. *International journal of Humanities*, vol 7, issue 11, pp 87-110.
- B. P. Singh, JULY-AUG, 2014. VOL-II/XIII www.srjis.com Page 1751 *scholarly Research Journal's* is licensed Based on a work at www.srjis.com 4.194, 2013 SJIF@SRJIS 2014.
- Shapiro, S.L, et al. (2000). Stress management in medical education. *Academic Medicine*, 75, 748 – 759.
- Lee, J. & Graham, A.V. (2001). Students' perception of medical school stress and their evaluation of wellness elective. *Medical Education*, 35, 652 – 659.
- Reddy K. J, Menon K. R, Thattil A. (2018). Academic Stress and its Sources Among University Students. *Biomed Pharmacol J*. 2018;11(1). DOI : <http://dx.doi.org/10.13005/bpj/1404>
- Mohammed Amin Wani, Dr. R. Sankar, September (2016). Stress Anxiety and Depression Among Science and Arts Students, *International Journal of Education and Psychological Research(IJEPR)*, Volume 5, Issue 3.
- Sibnath Deb, Esben Strodl, Jiandong Sun (2015). Academic Stress, Parental Pressure, Anxiety and Mental Health among Indian High School Students, *International Journal of Psychology and Behavioural Sciences*, 5(1):26-34, DOI: 10.5923/j.ijpbs.20150501.04
