



**A STUDY OF STRESS AND ANXIETY AMONG +2 SCIENCE STUDENTS
INRELATION TO SOCIO ECONOMIC STATUS AND ACADEMIC
ACHIEVEMENT**

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Abstract

College life is one of the most scintillating and memorable experience in an adolescents life. It is in college that an adolescent enjoys the vibrant environment, the company of friends, and the various academic and co-curricular activities, which enriches, nurtures and prepares the adolescent for adulthood. College students are at a critical period where they will enter adulthood. They are expected to be the elites in the society. Thus, they should enhance their stress, Anxiety, and Socio-economic status management abilities so as to live a healthy life after entering the society. Adolescence is a stage of human development that occurs between childhood and adulthood. Due to fast physical changes and mental development at this stage, students may experience incompatibility of their mental development with their physical changes or with the social environment and then suffer from problems arising Stress, Anxiety and Socio-economic status that influence on their Academic achievement. These problems may further cause psychological troubles and even induce deviant behaviors. The present research paper investigates how for the levels of Stress, anxiety, and Scio-economic status affecting on +2 level science student's Academic Achievement. The investigator selected randomly 20 colleges and from each college 30 students were selected as a sample for data collection. The total sample selected for data collection is 600 students. Normative survey method was adopted, the standardized tool on Stress, Anxiety and Socio-economic status were used for data collection. The findings of study reveals that the level of Stress, anxiety and Socio-economic status affect on academic achievement of +2 science students. However, Socio-economic status does not affect directly on the academic achievement of +2 Science students.

Keywords:- Stress, Anxiety, Socio-economic status, Interaction affect and Academic achievement



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Introduction:-

Now a day's education being given a lot of importance. It has become a powerful means of bringing about a change in human life. Knowing its importance new educational

institutions have come up to en-cash the situation by educating students to lead their new life. Of course, this is the need of the hour. But every change may not bring positive development in the society. Because, if we look at in other angle, today's education system has created a lot of pressure on students especially on +2 Science students.

Pre-University education has become a greater turning point in student's life. Therefore, today parents and children are giving much importance. The main reason for this is that after this level of education, students are offered a professional and technical course such as Medical, Engineering, Veterinary, Agricultural etc. As medical and engineering degrees are fetching a lot of money, so parents are forcing their children should get through with excellence Therefore, the parents are pressuring their children to work hard and hard. Naturally this leading to the problems of stress and anxiety at + 2 level science students.

Another important point to be considered is that teenage students naturally under mental and physical changes in addition to their emotional changes. At this stage, they are trying to adjust themselves with these changes. Now if students are forced to concentrate on their academic achievements, they will be mounted with more stress where this stress and anxiety of students lead them to, is the main objective of this research.

Significance of Study

Now a day is bearing education given a lot of importance. It has become a powerful Means of bringing about change in human life. Knowing its importance now, new educational institutions have come up to en-cash the situations. After the completion of some courses {B.E, MBBS,} students have different avenues and opportunities in different occupation. Of course, this is the need of the hour. However, not every change may bring positive development in the society, because if we look at it in another angle parent's ambitions mentality has created a lot of pressure or stress on the students.

Pre university education has become a greater turning point in student's life. The main reasons for this is, that after this level of education students are offered professional and technical courses, such as Medical, Engineering, veterinary, agricultural science etc. irrespective of their interest, aptitude and attitude etc. As medical and engineering degrees are fetching a lot of money. Therefore, parents are forcing their children that they should get through with excellence. Therefore, the parents are pressuring their children to work hard and hard without knowing their Socio-economic status and capacity. Naturally, this leads to the problems of stress and anxiety and it affects on Academic achievement of +2level science students.

Another important point to be considered is the teenage students naturally under mental and physical changes in addition to their emotional changes. At this stage, they are trying to adjust themselves with their changes. Now if students are forced to concentrate on their academic achievements, they will be mounted with more stress. This stress and anxiety of students lead to some problems.

At present day students are joining professional and technical courses as mentioned above basic science are being neglected, infarct, the percentage of students studying basic science has drastically come down. So there courses are lacking bright students studying basic science has drastically come down. So there courses are lacking bright students and naturally “No inventions”, the one of the former presidents of ISRO **Mr.Madhavan Nayar’s** words “Today we have its ability to send satellites to space using indigenous technology. We also have a have a technology to prepare a satellite and land on the moon. However, we have no experts having the capacity to study the things available on the moon and interpret. The youth of the today can do this. But many are not showing any interest in studying basic science like B.Sc,M.Sc.,This tell us the important of basic science with or without knowing this our parents are admitting their children to MBBS or B.E courses. Right from the childhood, parents are preparing their children for this, their parent’s satisfaction, for having social status and to earn more money, students go for these courses. However, parents not all think about what is there in the mind of students, in which courses their real interest lies? By studying other courses also, they can achieve their goals but this idea will not be there in the minds of the parents and students. Therefore, students are in stress to find out the effects of their stress is the main aims of their research.

Not only had that stress existed from the changes an individual is thinking and their life style. Now individuals have changed in their life. Students in their teens are the one who are going through the transitional phase, which is an intermediate of child and adulthood, mental and emotional changes are happening as well as the changes in responsibility and role in order to stabilize their changes the students are always confronted with problems and conflicts (Asri-2002) according to the Newman 2005 for some students who are not capable of dealing with it changes will face stress and tension. If it is not dealt with in the early stage, the students may experiences mental problems. Thus, the present selected topic is very relevant to study how stress, Anxiety, and socio-economic status play its role on Academic achievement of +2 level Science students.

Statement of the Problem

The purpose of the study was to: **A STUDY OF STRESS AND ANXIETY AMONG +2 SCIENCE STUDENTS INRELATION TO SOCIO ECONOMIC STATUS AND ACADEMIC ACHIEVEMENT”**.

Objectives of the study

The present study was undertaken with the following general objectives in view. The present study was undertaken with the following general objectives in view.

1. To study and find out the differences between different factors with respect to the stress, anxiety and socio economic status of +2 science students.
2. To find out the interaction effects of independent variables i.e. stress, anxiety and socio economic status on academic achievement of +2 science students
3. To find out relationship between academic achievement of +2 science students and independent variables i.e. stress, anxiety and socio economic status.
4. To find out influence of independent variables i.e. stress, anxiety and socio economic status on academic achievement of +2 science students.
5. To study the direct and indirect effects of independent variables i.e. stress, anxiety and socio Status

Hypothesis of the study

Hypothesis 1: There is no significant difference between male and female +2 science students with respect to Stress, Anxiety, Socio-economic Status academic achievement scores

Hypothesis 2:- There is no significant difference between +2 science students with low and high stress, Anxiety, and Socio-economic status with respect to academic achievement scores

Hypothesis 3:- There is no significant relationship between academic achievement with stress, anxiety and socio economic status scores of +2 science students

Hypothesis 4:- Stress, anxiety and socio economic status are would not be significant predictors of academic achievement scores of +2 science students

Hypothesis 5: There is no significant direct and indirect effect of stress, anxiety, and socio economic status on academic achievement scores of +2 science students

POPULATION AND SAMPLE

The investigator has chosen simple random sampling techniques in which investigator selected 20 PU colleges were included, in which 30 students were selected randomly from each school (600 students) were included and selected from including

government, aided and unaided schools in rural and urban areas with Kannada and English medium in the present study.

Variables

An expression that can be assigned any of the set of the value is known as variable. It is the condition or characteristic that the investigator manipulates controls or observes. Thus, it is likely to change at any time, having a range of possible value. The present study was the survey type of research that involved various variables as following.

Presentation of the Variables of the study

Table presented the dependent and the independent variables included in the study.

Variables of the present study

Sl.No.	Name of variable	Type of level
1.	Gender	Independent
2.	Medium of studied	Independent
3.	Locality wise	Independent
4.	Type of management	Independent

TOOLS USED

As far the tools of the study were concerned only the standardized test were employed for obtaining a reliable and valid data for dependable result. The tools used in the present investigation are listed below.

1. Anxiety Scale (Self Analysis form) 1976 edition Institute for personality and ability, P.O. Box 1188, Champaign, Illinois 61824.US,Aand also 1999 by The psycho-Centre ,G-19,H-Saket,New Delhi- 110017,India.
2. Student Stress Scale-AZ, Developed by Dr,Zaki Akhtar H.P.Bhargava Book House National Psychology corporation \$/230,Kaheri Ghat,Agra-282004.
3. Socio-Economic Status Scale Developed by R.L.Bharadwaj, Department of psychology D.S College Aligarh , National Psychology corporation 4/230,Kaheri Ghat,Agra-282004.
4. Academic Achievement: - The Previous class academic marks of the students.

DATA COLLECTION PROCEDURE

For the purpose of data collection, the researcher selected **20** colleges (from each college **30** students) from Bellary district. The investigator explained the purpose of research to the Principals and they were very willing to co-operate. The +2 level students were asked to sit comfortably and instructions were given to them on how to go with tools. In the meanwhile, they were eager to motivate and pursued to give honest and frank response. In

addition, they were ensured that the data would be used only for the research purpose. The printed along with answer sheets were distributed among students in each + 2 level Science colleges. There is time limit and there is no right or wrong answers in the responses. Since the individual students may complete their responses in data sheets as early as possible. The response sheets were collected back from each student. The same procedure has been followed for all selected PU colleges.

Scoring Procedure:-After collecting the data, the investigator scored the tool as per procedure given each tools manual.

Statistical Techniques Used

After the data had been collected, it was entered and processed using Microsoft Excel - 2007, and then data transferred in SPSS software. The data were collected on academic achievement, stress, anxiety, and socio economic status from +2 science students. Then, the data were analyzed with according to the objectives and hypotheses by interms of descriptive statistics, differential analysis including unpaired t-test, one way ANOVA and 2-way ANOVA followed by Tukeys multiple posthoc procedures, correlation analysis, multiple regression analysis and path analysis by using SPSS 20.0 statistical software and the results obtained thereby have been interpreted.

Analysis and Interpretation of Data

Table 1: Results of t test between male and female +2 science students with respect to academic achievement, Stress, Anxiety and Socio-economic Status scores

Sl.No	Variable	Mean	SD	S.E	T value	P-value	Sign
1.Academic Achievement	Male	64.34	12.72	0.75	-	0.0001	S
	Female	71.65	13.45	0.76	6.8312	<0.05	
2.Stress	Male	162.44	23.01	1.35	6.4912	0.0001	S
	Female	150.67	21.38	1.21		<0.05	
3.Anxiety	Male	41.83	7.45	0.44	6.0700	0.0001	
	Female	38.05	7.76	0.44		<0.05	S
4.S.E.S	Male	514.43	54.98	3.23	-	0.0001	
	Female	538.40	45.10	2.56	5.8541	<0.05	S

From the above table it implies that the calculated t values are greater than the table t values in all cases. Therefore, there is significant differences exists among male and female +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status.

Table 2: Results of t test between rural and urban +2 science students with respect to academic achievement, Stress, Anxiety and Socio-economic status scores

Sl.No	Variable	Mean	SD	S.E	T value	p-value	Sign
1.Academic achievement	Rural	64.86	12.91	0.79	-5.3483	0.0001	S
	Urban	70.70	13.58	0.74			
2.Stress	Rural	161.48	22.78	1.40	4.9581	0.0008	S
	Urban	152.31	22.27	1.22			
3.Anxiety	Rural	41.68	7.85	0.48	5.1147	0.0001	S
	Urban	38.45	7.54	0.41			
4.S.E.S	Rural	515.74	54.79	3.37	-4.7736	0.0001	S
	Urban	535.59	46.98	2.57			

From the above table it implies that the calculated t values are greater than the table t values in all cases. Therefore, there is significant differences exists among male and female +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status

Table 3: Results of t test between Kannada and English medium +2 science students with respect to academic achievement, Stress, Anxiety and Socio-economic status scores

Sl.No	Variable	Mean	SD	S,E	T value	p-value	Sign
1.Academic Achievement	Kannada medium	65.82	12.95	0.80	-3.7142	0.0002	S
	English medium	69.93	13.82	0.75			
2.Stress	Kannada medium	159.90	22.39	1.38	3.3785	0.0008	S
	English medium	153.58	23.00	1.25			
3.Anxiety	Kannada medium	41.09	7.55	0.46	3.3936	0.0007	S
	English medium	38.93	7.94	0.43			
4.S.E.S	Kannada medium	519.92	53.65	3.30	-2.9286	0.0035	S
	English medium	532.24	49.13	2.68			

From the above table it implies that the calculated t values are greater than the table t values in all cases. Therefore, there is significant differences exists among Rural and Urban +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status

Table 4: Results of ANOVA test between government, aided and unaided +2 science students with respect to academic achievement, Stress, Anxiety and Socio-economic status scores

Sl.No	Sources of variance	DF	Sum of Squares	Mean sum of Squares	F-value	p-value	sign
1.Academic achievement	Between managements	2	29038.79	14519.3934	106.2579	0.0001	S
						<0.05	

	Within managements	597	81575.81	136.6429			
	Total	599	110614.60				
2.Stress	Between managements	2	77996.61	38998.3042	98.2306	0.0001	S
						<0.05	
	Within managements	597	237013.63	397.0078			
	Total	599	315010.24				
3.Anxiety	Between managements	2	9772.20	4886.0996	107.8726	0.0001	S
						<0.05	
	Within managements	597	27041.16	45.2951			
	Total	599	36813.36				
4.S.E.S	Between managements	2	325235.63	162617.8137	76.8747	0.0001	S
						<0.05	
	Within managements	597	1262871.57	2115.3628			
	Total	599	1588107.20				

From the above table it implies that the calculated F values are greater than the table F values in all cases. Therefore, there is significant differences exists among Rural and Urban +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status

Table 5: Results of 2-way ANOVA with interaction effects of stress (Low and High) and anxiety (Low and High) on academic achievement scores of +2 science students

Sources of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	P-value
Main effects					
Stress	1	9137.45	9137.45	145.7564	0.0001*
Anxiety	1	3354.92	3354.92	53.5161	0.0001*
2-way interactions					
Stress x Anxiety	1	3750.86	3750.86	59.8320	0.0001*
Error	596	37363.17	62.69		
Total	599	53606.39			

The interaction effect of stress (Low and High) and anxiety (Low and high) on academic achievement scores of +2 science students is found to be significant (F=59.8320, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected. It means that, the +2 science students with low and high stress with low and high anxiety have different academic achievement scores

Table 6: Results of 2-way ANOVA with interaction effects of stress (Low and High) and socio economic status (Low and High) on academic achievement scores of +2 science students

Sources of variation	of	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	P-value
Main effects						
Stress		1	6096.73	6096.73	96.2830	0.0001*
Socio economic status		1	505.03	505.03	7.9757	0.0049*
2-way interactions						
Stress x Socio economic status		1	390.12	390.12	6.1610	0.0133*
Error		596	37739.31	63.32		
Total		599	44731.19			

The interaction effect of stress (Low and High) and socio economic status (Low and high) on academic achievement scores of +2 science students is found to be significant (F=6.1610, p<0.05) at 5% level of significance. Hence, the null hypothesis is rejected. It means that, the +2 science students with low and high stress with low and high socio economic status have different academic achievement scores

Table 7: Results of 2-way ANOVA with interaction effects of anxiety (Low and High) and socio economic status (Low and High) on academic achievement scores of +2 science students

Sources of variation	of	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	P-value
Main effects						
Anxiety		1	7134.49	7134.49	107.9292	0.0001*
Socio economic status		1	1.07	1.07	0.0161	0.8990
2-way interactions						
Anxiety x Socio economic status		1	1267.42	1267.42	19.1733	0.0001*
Error		596	39397.64	66.10		
Total		599	47800.62			

The interaction effect of anxiety (Low and High) and socio economic status (Low and high) on academic achievement scores of +2 science students is found to be significant (F=19.1733, p<0.05) at 5% level of significance. Hence the null hypothesis is rejected. It means that, the +2 science students with low and high anxiety with low and high socio economic status have different academic achievement scores

Findings of the study

1. There is significant differences exists among male and female +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status.
2. There is significant differences exists among male and female +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status
3. There is significant differences exists among Rural and Urban +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status
4. There is significant differences exists among Rural and Urban +2 Science students with reference their Academic achievement, Stress, Anxiety and Socio-economic Status.
5. The interaction effect of stress (Low and High) and anxiety (Low and high) on academic achievement scores of +2 science students is found to be significant ($F=59.8320$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected. It means that, the +2 science students with low and high stress with low.
6. The interaction effect of stress (Low and High) and socio economic status (Low and high) on academic achievement scores of +2 science students is found to be significant ($F=6.1610$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected. It means that, the +2 science students with low and high stress with low and high socio economic status have different academic achievement scores and high anxiety have different academic achievement scores
7. The interaction effect of anxiety (Low and High) and socio economic status (Low and high) on academic achievement scores of +2 science students is found to be significant ($F=19.1733$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected. It means that, the +2 science students with low and high anxiety with low and high socio economic status have different academic achievement scores

Conclusion

Achievement in different fields of life such as sports, academics, industry, business etc. has great importance for both the student, and those around him/her. There can be no doubt that it is affected by many factors that may hinder the academic performance of +2 level Science students. The findings of study reveals that the level of Stress, anxiety and Socio-economic status affect on academic achievement of +2 science students. However,

Socio-economic status does not affect directly on the academic achievement of +2 Science students.

The levels of stress, Anxiety and Socioeconomic status found out in through the study have a direct relation with the academic achievement level of students. The reasons for stress, anxiety cannot be limited to these. It varies according to students and their psychology. In conclusion, the results of this study are suggestive as to the necessary components of a stress and anxiety management program specific to the needs of college students.

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