

**ANALYSIS OF STRESS AMONG HIGHER SECONDARY SCHOOL STUDENTS
(With special reference to rural schools)**

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Abstract

The purpose of this study is to determine the relationships between stress level and academic achievement among students in rural secondary schools. A study of stress, especially an approach towards measuring level of stress among adolescents is quite new in Tamil Nadu. So, an attempt to study this condition, starting with normal adolescents, is the purpose of this study.

Introduction

Stress exists from the change in an individual's thinking and their lifestyle nowadays. Now, individuals have changed in their perceptions and the way they interpret this life. Students in their teens are the ones who are going through the transitional phase, which is an intermediate of childhood and adulthood. During the teen years, a lot of biological, physical, mental and emotional changes are happening, as well as the changes in responsibility and role. In order to stabilize these changes, the students are always confronted with problems and conflicts (Asri, 2002). For some students who are *European Journal of Social Sciences – Volume 10, Number 2 (2009)* 180 not capable of dealing with it, the changes will create stress and tension to them. If it is not dealt with in the early stages, the student may experience mental problems (Newman, 2005).

Stress is believed to be caused by various problems that exists such as problems at school, financial problems, family problems and problems in their surroundings. Teenagers also experience stress because they are sometimes trapped between making decisions which is to follow rules and orders or to be free and discover the world like they should. Teenagers in the past were trained for things that were suitable with their age so that they could use it to manage their lives. But now, teenagers have to follow their parents' desire which is preparing them to compete in the social system where the society is scrambling towards modernization so that they are not left behind. If it is not managed well, stress can ignite psychological disturbances among them when they are grown up.

These disturbances will cause stress to the teenagers in the future if they are not overcome now. According to Zulkifli (1988), teenagers always face problems in adjusting. Teenagers especially those who are students always face learning problems, career management and also problems in solving personal and social matters. These are the factors that contribute to stress in life. Students are starting to shift from a life that is dependent on others to a life that needs them to release the dependency and start carrying their own responsibilities.

Morris (1990) stated that teenagers always face stress in school and they compete each other to get better grades. Levine, 1970 (in Dobson, 1980), explained that stress has a relationship with a

specific situation like a learning environment in school and the inability to do work perfectly and the failure to achieve anything that is desired. The issues of students doing things like punching teachers, cursing, slandering and hurting teachers, prostitution and others calls for researchers to see the mentioned phenomena is connected to the stress situation among teenagers.

Adams (1983, in Kamaruddin, 1997) stated that the biggest problem among schooling teenagers is the matters associated with their schooling. Other than that, problems that female students have to deal with are communication and family problems. For the male students, their side problems are problems with getting involved in sports, recreation and also financial matters. A number of responsibilities and pressure cause stress to the teenagers like the need to achieve good academic grades, character building and also good attitude besides trying to comprehend with their personal needs.

Research based on the stress levels that are experienced by student have been done by Chin (2005) on students form Tunku Abdul Rahman (TAR) College, Malaysia. Meanwhile, Gadzella (2006) conducted a research on the stress levels in female students in a university. Although past researches have been on the stress phenomena, the findings of these researches is hoped to be able to assist directly or indirectly in managing students who are dealing with stress. With that, it is hoped that an effort or a program that can prevent stress among students will be planned out. Information about the stress that is experienced by students can also help the more authorized group like parents, school and society in giving guidance to students on handling the stress that exist in them.

Fariza (2005) who conducted a research on the stress among teenagers found that this age group has to deal with the academic world. Therefore there exists demand and hope for themselves, their parents, teachers and the society to see them succeed. This is parallel to the research by Mates and Alisson (1992) which finds that among the academic factor that contribute to the stress in teenagers is their achievement in academics.

This research is also conducted to detect the difference of stress level with rural students. The reason is the same as the research that was conducted by Muhammad Shah (1993) and Asri (2002) which was about stress among urban and rural secondary school students. The researchers felt that further research should be done to review the conclusions of previous researches so that other methods or ways can be designed to overcome this problem.

Researches on the difference of stress levels between sexes are usually conducted directly or indirectly. Therefore, the purpose of this research is to verify the results of previous researches that concluded female students experience more stress compared to the male students. Gadzella and Baloglu (2001) found that female students experience stress during changes in their life. While Muhammad Shah (1993) found that there is a significant difference between the stress experienced by male and female students and the research by Mohd Jafri (1991) shows that female students experience more stress when faced with problems compared to the male students.

Research questions: Continued stress on students affects their economic, social, physical and psychological status. It is not enough if the factors that cause stress are identified. The students should be trained to manage the stress. Unmanaged and uncontrolled stress ultimately results in the growth of unbalanced youngsters, who can neither be useful to the family or the society, but in due course turn out to be a threat. Further when students perform under stress, they tend to ignore their attitude and health, with the result they become a source of nuisance to others in the school. While the parents pressurize the students to perform, the students are exposed to different other pressures causing enormous stress. Students who are unable to get help or manage their stress ultimately commit suicide causing a permanent agony to both the parents and society. Such youngsters fail to also remain productive and in the absence of any intervention, the country loses the full potential of the youngsters. Therefore, it is necessary to undertake an in-depth research among the school children so as to design suitable methods to protect the children from the stressful life. Further a number of changes are made in the curriculum, text books used and pedagogy at different points of time and so a periodical study of stress among students would go a long way to evolve a system which brings down the stress and also helps the students to enjoy their life at school.

Research Objectives

The research objectives are:

1. To identify the stress levels among the school students.
2. To identify the factors causing **stress**

Research Methodology

Nature of the study: This study is a descriptive study.

Data: Essentially primary data were used for the purpose of this study. The data were collected through a structured questionnaire, which was field tested before finalized and administered.

Sample : Two schools – one government and one private school were selected for this study in rural set up. The two schools are located at Guduvancherry, a small town in Chengalpattu taluk. Totally 100 students in the plus two course were selected. The sample contained 75 male students and 25 girls.

Survey: The survey was conducted during July – August, 2011.

Data analysis: Data were analyzed using SPSS 18 package

RESULTS WITH INTERPRETATION

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1. THE AVERAGE STRESS LEVEL AMONG BOYS WAS 76.48% AND AMONG GIRLS 85.53% This indicates that the girls at the plus two level undergo more stress on an average than the boys. It is further supported by a low Coefficient of variation of stress among girls [15.21%] than the boys [23.47%]. In other words, stress among girls is more or less stable compared to boys. This goes to prove that among the school children the girls are subjected to higher stress than boys. This gender influence of stress highlights that the schools concerned have to consider measures to study the reasons for higher stress level among the girls than the boys and evolve measures to help the girls to manage their stress. This does not mean that the stress among the boys can be ignored. The stress among the boys needs to be carefully monitored so as to help them to perform better. Generally boys are found to share the reasons for stress among their friends and use games or sports or going to films to manage their stress. But girls are generally introverts and they have relatively lesser opportunities available for them to share their stress with others and so they remain under stress without any significant attempt to manage it.

In order to verify the above result, Karl Pearson's correlation was worked out between gender and stress level and the result indicated statistically significant relationship [0.296^{**}]

2. As the stress level varied between gender, it was felt necessary to find out the stress level varies between the category of schools. For this purpose Chi-square test was conducted and the result indicated a statistically significant association between the type of school and stress level. The result was : Calculated value of $X^2 = 42.864$ which is considerably higher than the Table value of X^2 This means that the stress level at the Private school and Government school differ significantly.
3. Next the stress level between the two types of schools was examined. It was found that the average stress level is higher at the Government school [88.35%] than at the private school [76.59%] This is generally because the students at the government schools belong to poor income group where parents are also employed and they take lesser interest to resolve the stress in their children. The family compulsion and burden prevent them from helping their children. On the other hand the children in private schools mostly belong to middle income or high income group. In such families, the parents take more interest to help and support their children to overcome stress in every way possible. Further, at the school level the teachers in private schools interact better with the children than the teachers in the government schools. With better atmosphere at home and more responsive school environment, the children at private schools under go lesser stress.
4. From the respondents eight factors could be listed which cause stress among school children. To identify the relative influence of each of these eight factors, Factor analysis was done. The results of the analysis are presented hereunder.

Table : 1. KMO and Bartlett's Test

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .760 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 246.559 |
| | df | 28 |
| | Sig. | .000 |

The KMO test indicated that the sample adequacy was 0.760 and the sphere city also was found to be high with statistically significant Chi-square value. The sphere city indicated the normality of the sample.

Table : 2 Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.336 | 41.695 | 41.695 | 3.336 | 41.695 | 41.695 | 2.504 | 31.294 | 31.294 |
| 2 | 1.351 | 16.889 | 58.584 | 1.351 | 16.889 | 58.584 | 2.183 | 27.290 | 58.584 |
| 3 | .976 | 12.206 | 70.790 | | | | | | |
| 4 | .712 | 8.903 | 79.693 | | | | | | |
| 5 | .603 | 7.539 | 87.232 | | | | | | |
| 6 | .385 | 4.818 | 92.051 | | | | | | |
| 7 | .328 | 4.105 | 96.156 | | | | | | |
| 8 | .308 | 3.844 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

From the table above it is clear that nearly 59% of the total variance is explained by two components. The components included various factors with high correlation and these are presented in the Rotated component matrix given below.

Table : 3 Rotated Component Matrix^a

| | Component | |
|----------------|-----------|-------|
| | 1 | 2 |
| PAYATTENTION | -.076 | .727 |
| PASSING | .247 | .684 |
| TEACHING | .127 | .743 |
| DOWELL | .630 | .520 |
| ATTENDANCE | .818 | .112 |
| LATE | .888 | -.041 |
| MANYASSIGNMENT | .262 | .449 |
| STAYAWAKE | .706 | .385 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The first component contains 4 factors with heavy loading, viz. uncertainty about doing well at the school, poor attendance, late attending of classes and unable to stay awake and concentrate on studies. All these factors imply that the children under stress go through this experience and the result of it, their performance suffer. Poor performance adds to stress. The second component contains 4 factors with heavy loading, viz. unable to be attentive in the class, finding it difficult to pass the assignment and tests, difficulty in understanding what is taught and uncertainty about doing well at the school. Considering the factors causing stress, there must be an integrated solution to help these students involving parents, teacher and management of the schools concerned. Such an approach will add to the confidence of the students which might help to bring down their stress. Read in conjunction with the earlier results, it is desirable that the government schools start addressing this issue on a priority basis and focus more on the girls. Learning under stress will only worsen the psychological status of the students which in turn

would have a bearing on the physiological condition of the students. Such students sometimes turn violent and become a threat to others and eventually to the society.

5. Based on the understanding emerging from the earlier results, it was decided to identify with the regression tool, the impact of stress on economic condition or psychological condition and physiological condition. While statistically non-significant results emerged in the case of economic condition and psychological condition, a very useful and significant result was noticed with regard to the impact of stress on physiological condition. The results of the analysis are presented in the table below. It is to be noted that stress is a psychological factor which directly impacts the physiological conditions of the young students. When they are continued to be exposed to such a situation, a number of undesirable consequences emerge. Unless the stress level is controlled or atleast managed, the career of many of the young students, especially girls, will be at risk.

In order to examine the factors influencing the stress, a number of variables were selected and a multiple regression analysis was performed. The general form of linear regression is :

$Y = [X_1, X_2, X_3, X_4, X_5, \dots, X_n$ Where $X_1 - X_n$ are the independent variables. The independent variables included are : X_1 Exercise, X_2 Gain or loss in weight, X_3 tiredness, X_4 depressed, X_5 no one cares, X_6 Like to do, X_7 too much pressure.

Table : 4 ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1 | Regression | 3949.904 | 7 | 564.272 | 3.499 | .002 ^a |
| | Residual | 14354.220 | 89 | 161.283 | | |
| | Total | 18304.124 | 96 | | | |

a. Predictors: (Constant), TOOMUCHPRESSURE, EXERCISE, CARES, GAINLOSSWEIGHT, DEPRESSED, TIRED, LIKETODO

b. Dependent Variable: SRESSLEVEL

Table : 5 Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| (Constant) | 57.382 | 7.583 | | 7.567 | .000 |
| EXERCISE [X1] | -.955 | 1.089 | -.088 | -.877 | .383 |
| GAINLOSSWEIGHT [X2] | 2.611 | 1.198 | .226 | 2.180 | .032 |
| TIRED [X3] | 3.809 | 1.205 | .357 | 3.162 | .002 |
| DEPRESSED [X4] | -.387 | 1.180 | -.035 | -.328 | .744 |
| CARES [X5] | 2.254 | 1.284 | .196 | 1.755 | .083 |
| LIKETODO [X6] | -.834 | 1.420 | -.068 | -.587 | .558 |
| TOOMUCHPRESSURE [X7] | .444 | 1.179 | .043 | .377 | .707 |

a. Dependent Variable: SRESSLEVEL

The regression equation that emerged is :

$$\begin{aligned} \text{Stress level [Y]} = & 57.382^* [t=7.567] - 0.955^{ns} X1 + 2.611^* X2 [t= 2.180] - 3.809^* X3 [t= 3.162] \\ & - 0.387^{ns} X4 + 2.254^* X5 [t=1.755] + 0.834^{ns} X6 [t=0.587] \\ & - + 0.444^{ns} X7 [t=0.377] \end{aligned}$$

The R² value was found to be statistically significant at 0.216, which indicates that stress explains nearly 22% of changes in the physiological conditions of the school students. From Table 4, F value is 3.499 which again is statistically significant implying that the results of the study could be used for interpretation and generalization. From Table 5, it could be noted that gain or loss in weight [X2], tiredness [X3] and mental status where no one appears to be caring [X5] emerged statistically significant. This means, for every unit change I the weight gain or loss, the stress level would go up by 2.611 units. For one unit change in the physical tiredness, the stress level go up by 3.809 units and the stress level increases by about 2.254 unit for a unit change in the mental status that no one is caring the students. These results indicate that unless

stress level is controlled, physically students will become weak and this is bound to affect their performance as well as mental status. Continued stress ultimately makes the school life a burden rather than a blessing.

Conclusions:

The results clearly indicated that the stress level differs among the genders. This means the methods of overcoming stress cannot be the same for boys and girls. The methods should be based on the factors causing stress among the boys and girls rather than any other basis. This is where the parents – teachers associations in the schools can play a lead role. By identifying the students who are under stress, they must periodically counsel the children, apart from discussing with the parents and teachers of these children.

Another vital finding is that children in the government schools are subjected to a higher level of stress. This calls for a focused attempt to address this issue. Among the factors, availability of teachers for all subjects, pressure applied on students to perform so that the school can get cent percent result, parents pressure to make the students work hard to enter the professional courses, parents insistence that the children should go for job inspite of good performance, etc can cause immense stress on children. As there are multiple factors the school authority in consultation with the parents – teacher association, state government higher secondary board and Ministry of school education must attend to the posting of required teachers at all schools, improving the infrastructure facilities in the schools, providing additional free coaching for students who apply for professional courses. As regards students who want to take up employment, the schools should offer them opportunities to learn vocational subjects and integrate this with the small factories in the locality.

Many schools are already providing counseling to students at the plus two level, so as to help them overcome their stress and perform better. Unfortunately the counselors perform their work as an extension of teaching work rather than offering it as a professional support. While it may be financially unviable for all schools to recruit counselors, it will be better to explore the possibility of retaining the services of professional counselors on a weekly basis and rotational basis. Such support will go a long way to bring down the stress level among students.

Scope for future research : Stress at the school final level might differ between urban schools and rural schools. It might also differ among the State board schools and Central board schools. Another possibility is it is bound to differ among students belonging to different streams viz., maths group, science group, arts and commerce group, etc. In all these cases, a regular assessment of stress level would go a long way to overhaul the methods used to control stress among children.

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