Original Research Paper

Examination Stress among Adolescents of Dehradun: Impact of Personality, Intelligence and Achievement Motivation

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ABSTRACT

The objective of this study was to study the level of examination stress among adolescent of Dehradun city. The researcher has employed descriptive method involving measurement, comparison, evaluation and interpretation. The sample consisted of total of 480 adolescents studying in class 11th science in private and government schools. While selecting samples, equal numbers of male and female adolescents were selected. Cattell's culture fair intelligence test scale-2 was used to study the impact of intelligence on the examination stress. Indian adaptation of contact personality factor test (Form B) standardized by S.S.Srivastava was used to measure extraversion-introversion traits of subjects. Deo-Mohan achievement motivation scale was used to measure level of achievement motivation. For the measurement of examination stress, researcher has prepared a scale and its validity and reliability was checked before use. Mean, SD, t-test and ANOVA and correlation were applied for analysis. It was observed that majority of school adolescent (39.58%) feel average examination stress. While 31.25% feel high examination stress. A significant difference exists between stress level of male (stress mean 25.73) and female adolescents (stress mean 39.08). Introverts and low motivated adolescents (25%) face more examination stress (mean 39.14). Low intelligence adolescent (28.33%) feels more stress (mean 39.07). A greater difference was observed between stress level of private and government school adolescents. Girls of government school suffer with more stress (mean 41.08) while boys of private school suffer with more stress (mean 30.05). Low motivated adolescents (25%) suffer with more stress than high motivated (27.08%).

Keywords: Adolescent, Examination stress, Personality, Intelligence, Achievement motivation, Introvert, Extrovert.

Examination stress is a type of performance anxiety. In situations where the pressure is on and a good performance counts, people can become so anxious that they are actually unable to do their best. It seems that people experience stress according to their level of intelligence, personality and achievement motivation and other traits. In the time of modernization, rapid social change, technical innovations, competitions and information technology explosion have proved to be both boon and bane for people. The continuous pressures from outside world over the abilities, interests, attitudes, and various aspects of human behavior cause

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restlessness in the mind of the individual. While the search for excellence became an universal quest, some found themselves unable to cope with the challenges of time, which caused a state of restlessness in them. When human being uses his capacities optimally and his expectations increase than functioning of his abilities, he feels tension. Hence individuals come in the race of achieving standard of excellence with their own competencies. When they fail to cope up with these competitions and race in the environment, they feel stress. Stress is a courage of modern day living. Stress serves a useful purpose in stimulating effort, inventiveness and high standards but when there is more stress than our ability to cope with; ups and downs come in our life. The ability to cope with stress depends upon a combination of constitutional or natural resources, uniqueness in personality, intelligence and capacity to reach standards of excellence.

Objectives of the Study
The following objectives are considered for the purpose of study:
1. To study the level of stress among school adolescents.
2. To study the difference of examination stress among male and female school adolescents.
3. To study the difference of examination stress among male and female adolescents of private and government schools.
4. To study the influence of personality on the examination stress among school adolescents
5. To find out the influence of intelligence on the examination stress among school adolescents.
6. To explore the influence of achievement motivation on the examination stress among school adolescents.

Hypothesis
The following hypotheses are formulated to empirically validate the proposed objectives:
1. There is no significant difference in the examination stress of male and female school adolescents.
2. There is no significant difference in the examination stress of adolescents of private and government schools.
3. No significant difference exists in the examination stress of school adolescents having high and low intelligence.
4. There is no significant difference in the examination stress of extroverts and introverts.
5. Examination stress of school adolescents varies with their level of achievement motivation.

REVIEW OF LITERATURE

Examination Stress
It is the force behind much learning. Students under the pressure of a final examination may be motivated to pick up the book, burn the midnight oil and cram. As a result, they may find that not only he has to pass the test, but also learn a bit of the subject while his more carefree classmate, not stressed enough to study, may find his academic career prematurely terminated as a result of flunking the examinations. Deosthalee (2000) found significant effect of gender and educational maturity on stress and revealed higher the level of education one achieves, lower the level of stress he/she may have experienced. The results showed that the age has no effect on stress.

Kapil and Alpana (2011) examined the impact of stress management techniques of adolescent's performance level. Results showed that girls preferred social support technique more as compared to positive attitude technique for improving the emotional intelligence, academic performance, whereas boys preferred positive attitude technique more than social support technique. According to Spielberger & Vagg (1995) the test anxiety construct is considered as a situation-specific trait accounting for individual differences in the extent to which people find examinations threatening.

According to Denscombe (2000) it is possible to conceptualize examinations as stressful by virtue of their own properties or functions without having to refer to perceived worry and arousal.

He suggested that examinations are stressful for student for different reasons. Consequences such as markers of self esteem, judgments from others, and fear appeal by teachers. Deshmukh (2000) explored relationship among anxiety, achievement motivation, intelligence, goal discrepancy and academic achievement of junior college students with high and low self concept. The findings of the study indicated the inverse relationship between self concept and anxiety. Hingar et al. (2001) revealed that the major stresses experienced by females are inter-role distance.

Suman et al. (2007) investigated the level of achievement motive, anxiety and power of motive among scheduled caste. The results revealed that there is no significant difference between achievement motive and anxiety of the subjects. But there was a significant difference in power of motive of the subjects. Ajwani and Sharma (2004) explored relationship between test anxiety and academic achievement among college students and confirmed that high academic achiever would show greater anxiety in testing situation as compared to low academic achievers.

Possible Cause of Examination Stress
Examination stress is a particular type of stress which is felt by almost every person in life but the causes for such a feeling can be numerous under different situations and in different environments. The extent of feeling of stress can also vary from individual to individual.

Tiwari (2008) conducted a study on examination stress among school students. The findings indicated that the boys and the girls both have same view that the board examinations cause restlessness and anxiety of tough subjects, lack of confidence, memory problems such as fear of forgetting which leads to feeling of stress of examination during the recreation time or nonparticipation in sports etc. Both boys and girls felt stress from friends by the constant discussions about examination, preparation of examinations. The boys and girls both feel board examination stress due to over expectation of teachers, method of teaching, continuous test, aggressive behavior of teachers and less opportunities for co-curricular activities irrespective of gender. The parents' expectation of good result is equal on both girls and boys irrespective of gender. The data depicted that the parents restriction on recreation time, habit of comparing with others, instruction for non-participating in cultural and social function cause equal examination stress among the boys and girls. The boys management technique used for reducing stress is insignificantly different from their counterparts either it is regarding use of coffee / tea or yoga or managing their study by timetable or spending some relaxed time by watching movies and reading magazine or by meditation / worship of god.

Shih (2012) examined that how Taiwanese junior high school students' perfectionist tendencies and achievement goals were related to their academic burnout versus work engagement, and to determine differences in the indicators of burnout versus engagement among students with different subtypes of perfectionism. It was found that perfectionism along with achievement goals emerged as statistically significant predictors of Taiwanese students' burnout and work engagement.

Mathew and Baby (1998) explored the relationship between personality and stress of drinking habits of adults and found that the subjects high on anxiety-neuroticism had an elevated desire to drink in stress, convivial and boring situations. Events indicated that the difference between alcoholics and non-alcoholics is significant.

When physical health of students is poor, it may result in lack of concentration in studies, lack of reading capacity and adoption of poor methods of learning, which may lead to stress. Mrinal (2003) explored coping resources as mediator of stress. The researcher revealed that males have significantly greater physical resources than females. The females have significantly lower emotional coping resources in comparison to androgynous males as well as females. In terms of socio economic status, high socio economic status males have greater overall coping resources.

When parents' expectations are unrealistic and do not match with the student's capabilities, adolescents get stressed. Sometimes when the attitude of parents differ from the attitude of their adolescents, both feel stressed. The adolescents feel examination stress differently. They may have symptoms of examination stress as lack of sleep, loss of appetite, feeling of restlessness, anxiety, depression, irritability and fear of forgetting.

Intelligence

Intelligence is one of the most elusive concepts. Looked at in one way everyone knows what intelligence is, looked at in another way, no one does. Implicit theories of intelligence differ from explicit theories and western perspective of intelligence differs from eastern perspective. Conceptions of intelligence among different cultures also tend to differ in emphasizing different characteristics. However, a perusal of earlier and new definitions of the concept reveals that common themes running in earlier definitions of intelligence appear to be with respect to ability to adapt to the environment and ability to learn.

Gupta (1971), Dhariwal and Sharma (1974) and Seddon (1975) explored significant relationship between intelligence and academic achievement of students. Many people have been taking intelligence as identical to what the intelligence tests measure. The traditional approach to intelligence and its assessment was initiated by psychologists such as Binet and Spearman at the beginning of the twentieth century.

Positive and significant relationship is found between intelligence and academic achievement of school students. The extent to which intelligence test scores act as predictors of future success of individuals' future success, is rarely sufficient to justify their use as practical selection devices. As Swaroop et al. (2001) explored positive significant relationship between perceptual ability and stimulating environment of boys and girls. High intelligent students showed less stress due to their positive attitude. If looked upon intelligence in this way, studying in terms of behavior in the real-world environment is of great importance. Examination is one such case of real-life situation.

Personality

Personality is the whole integrated pattern of behavior which distinguished one person from another. It is unique as fingerprints and distinctive as photographs. It consists not of incidental, emotionally neutral features but the most important things we can say about a person. Everyone has a unique personality.

Allport (1964) defined personality as dynamic organization with in the individual of psycho-physical system that determines one's unique adjustment to its environment. A person whose basic orientation is towards external world is known as extrovert. Such persons are outgoing, sociable, rather impulsive and require constant stimulations from the environment. Our personality is a unique organization of so many things that belong to our self. The construct of personality may be conceived as a psychic system of structures and functions. It is not a mixture of unrelated traits and miscellaneous behaviors but a tightly knit organization of stable structures and coordinated functions.

It is the emerging need of present time to analyze the relationship between personality and stress. Knowledge-explosion, competitions, insecurity, increasing pressures, demands of modernization lead to stress. Everyone combat these stressful events according to his/her personality.Joshi (2000) explored the relationship between personality dimensions and academic achievement of students.

Yadav and Mayuri (2001) found contribution of personality factors to high academic achievement of rural government school children and concluded that factors which helped in high achievement were comprehension, concentration, task orientation, recording, systematic and regular study habits, high self control, high morality, high achievement motivation, low general anxiety, and internal orientation.

Clark et al. (2010) explored the relationships between personality and academic motivation of college students. Results indicated that those who were intrinsically motivated to attend college tended to be extroverted, agreeable, conscientious, and open to new experiences; although these trends varied depending on the specific type of intrinsic motivation.

Many researchers studied personality in relation to behavior, achievement and study habits of students. Some of them paid attention towards the study of examination stress in relation to personality dimensions of students.

Achievement Motivation

Most of us develop a strong urge to assert ourselves to achieve, to get recognition in some shape or form. This has been called motive to achieve or mastery motive. When a person expects that his performance will be evaluated in relation to some standard of excellence, such behavior is achievement-oriented.

Singh (2011) compared the academic achievement motivation of adolescent from aided and non-aided school. Results showed that there is significant difference in academic achievement motivation between aided and non-aided high school boys, there is significant difference in academic achievement motivation between aided and non-aided high school girls and there is no significant difference in academic achievement motivation between aided and non-aided high school pupils.

Achievement oriented person is the one who sincerely tries to improve the conditions of life. It is revealed that over achievers are more highly motivated and anxious than under achievers. Tripathi and Swarnkar (2008) found significant effect of achievement motivation on creative thinking of school students of Pratap Garh district of Uttar Pradesh.

Motivation for competence may be more concerned with pleasure at present time but the concerns of achievement motivation are with the future accomplishments. Both achievement motivation and motivation for competence are useful but effort is essential to accomplish both and learning probably comes faster to persons with high achievement motivation than to those with low achievement motivation.

Krishnamurthy (2001) studied that the educational status of parents has caused significant difference in respect of their achievement in history, academic achievement motivation and attitude of students towards the study of history. There is significant and positive relationship between the achievement in history and their academic achievement motivation. The other real sources of motivation reside in the environmental forces to which the individual becomes exposed in his life.

Significance/Rationale of the Study

The psychologists and educationists have been focusing their research in the area of stress. New demands are imposed by rapid change in the education system; which, in turn, cause stress. Previous studies have suggested that the degree of stress experienced by students is affected by characteristics of education, teachers and the students themselves. They remained mostly in the fields of occupational stress, stressful life events and stress due to some chronic diseases etc. But less attention has been paid to the issue of examination stress, realizing the present day need in the area of education where focus is upon mobilizing and directing the inner potentialities of students to cope with difficulties and achieve better.

For the above reason, the variable of examination stress has been selected for investigation, especially as it exists in relation to one's cognitive functioning. The other variables selected for the present study are intelligence, personality and achievement motivation. Students react differently with the event of examination. It is yet to be explored whether more intelligent students take the examination as challenge and utilize their maximum energy to do the best. Personality has different traits and any particular trait may help the individuals to react in a specific way for the coming possibilities. Some students want to achieve the standard of excellence in every sphere of life but examination stress plays its role everywhere. It may vary with varying levels of intelligence, personality and achievement motivation. Hence the investigator took the present study to account for the issue of examination stress

RESEARCH METHODOLOGY

For the present study, Descriptive and Analytical Method was used. Because it is considered as one of the best method in education, it describes the current status of the research work. It involves classification, measurement, evaluation, comparison, interpretation and generalization, all directed towards an understanding and solution of significant educational problems.

Population

School adolescents of 11th class science group from government and public schools of Dehradun city were selected as the population for the study.

Sampling Procedure

To conduct this study, the investigator selected a representative sample of total 480 adolescents of 11th class science group from government and public schools of Dehradun. Equal numbers of male and female adolescents were selected from equal number of private and government schools. All samples were selected in a random method.

Layout of Sample

Samples were collected from 8 different schools from North, South, East, and West part of Dehradun. From each part one private school and one government school were chosen. Total 60 samples were collected from each school comprising 30 boys and 30 girls. Thus total 480 samples were collected from 8 schools comprising 240 boys and 240 girls.

(Students from Government schools) N = 240

120 boys ----- 30 from each school (North, South, East and West area of Dehradun)
120 girls ----- 30 from each school (North, South, East and West area of Dehradun)

(Students from Private schools) N = 240

120 boys ----- 30 from each school (North, South, East and West area of Dehradun)
120 girls ----- 30 from each school (North, South, East and West area of Dehradun)

Tools Used For Data Collection

To achieve the objectives of the study following tools were used:

Cattell's Culture Fair Intelligence Test Scale-2 (Cattell, 1973)

This test was used to achieve the objective of finding the impact of intelligence on the examination stress among school adolescents. It measures individual intelligence in a manner designed to reduce the influence of verbal fluency, cultural climate and educational level as much as possible (Cattell, 1973). It may be administered individually or in a group. It is nonverbal test and requires only that examinees be able to perceive relationships in shapes and figures.

Indian Adaptation Of Contact Personality Factor Test (Form B)

This test has been standardized by S.S. Srivastava. As the present study required the measurement of extraversion-introversion traits of the subjects, S.S. Srivastava's contact Personality Factor Test (Form B) was used.

Examination Stress Scale

The investigator had to assess the examination stress among school adolescent, but no such scale was available to the best of the knowledge of the investigator. Thus it required to develop such a scale. Examination stress is an interaction between the challenge of an examination and resistance opposed to it by an individual. Thus the item content for the scale was decided on this basis.

Item Content

A number of books, journals and encyclopedias were reviewed to get the required knowledge for framing the items for the scale. Experts' opinion was also sought for constructing the items of the scale, after which 50 items pertaining to the examination stress were drafted and after deletion and correction 30 items were retained. These items were categorized into three sub parts as Physiological anxiety response, Cognitive & behavioral response and social stress.

Item Format
While deciding the item format for the scale, it was thought to get the response for each item in three point scale. Therefore the items were so designed that the subjects were required to choose one out of the three options of the format designed as Always/Sometimes/Never. This format had an advantage over dichotomous type format as the subjects can have wider choice in expressing their stress and responding to the items accurately.

Validity
The trial form thus constructed consisted of 50 items. It was mailed to 15 experts in the field of Psychology and Education and 5 experts were personally contacted to get their opinion for rejecting, accepting and modifying the scale items. The investigator got the responses of 11 experts out of 15 of them. Their valuable suggestions were incorporated in the trial form which resulted in deleting 20 items and modifying 3 items of the trial form. Thus, the final form consisted of 30 items (Table: 1) in all after determining the face validity and content validity of the scale.

Table 1: Distribution of Items in the Examination Stress Scale

Items Framed	Items Deleted	Items Modified	Item Retained
50	20	3	30

Reliability
To find out the accuracy of the scale, it was divided into two equivalent halves and the correlation coefficient was found for these two halves of the scale. The value of correlation coefficient was found to be 0.705. From the reliability of the half scale, the correlation of the whole scale was then estimated by using Spearman-Brown prophecy formula (Anastasi; 1982). Thus the value of the reliability coefficient of the whole scale was found to be 0.84. The value of reliability index was found out by using the formula r index = r11. It was found out to be 0.91. Thus it enabled the investigator to have a highly reliable and valid scale for measuring examination stress for the present study.

Scoring
The scores on each item were calculated on the basis of the responses given by the students. If they had ticked positive item pertaining to the examination stress i.e. 'always', 2 scores were assigned to him. In case of 'sometimes' one score was given and the subjects who ticked 'never' were given zero score on that item as it showed no stress due to examination. All the scores were added to get a composite score for examination stress of the subjects.

Deo-Mohan Achievement Motivation Scale By Deo-Mohan (2002)
The term motivation refers to any state that mobilizes activity which is in some sense selective or directive as is suggested by Deo-mohan. In fact, this is one of the most important manifests of social needs and personality variable. To find out extent of achievement motivation, scale given by Deo-Mohan was used.

Tabulation of Data
The data were tabulated according to the objectives of the study.

RESULTS AND DISCUSSION
When intelligence test by Cattell (1973) was applied to the school adolescents, the findings were explored into three types of categories i.e.
1. High Intelligence Adolescents Group (HIAG),
2. Average Intelligence Adolescents Group (AIAG)

3. Low Intelligence Adolescents Group (LIAG).

These groups were formed after calculating Q1 and Q3 scores for the test. The students who scored more than 33 (Q3 value) formed high intelligence group, those who scored below 26 (Q1 value) formed low intelligence group and those students who scored between the scores 26 and 33 (Q1 and Q3) are grouped into average intelligence group.

Table 2: Distribution of Sample According to Levels of Intelligence

	High Intelligence Adolescent Group (HIAG)	Average Intelligence Adolescents Group (AIAG)	Low Intelligence Adolescents Group (LIAG)
N	148	196	136
%	30.83	40.83	28.33

As shown in the table: 2, the total school adolescents who constituted the sample were 480. Out of which 148 students (30.83%) formed HIAG, 196 students (40.83%) were grouped as AIAG where as 136 students (28.33%) formed LIAG.

Similarly, when Indian adaptation of Contact Personality Factor Test by Srivastava (1990) was applied to the subjects, group of scores formed as:
1. Extroverts
2. Introverts
3. Ambiverts

These groups were formed on the basis Q1 and Q3 scores on personality test. The school adolescents who scored more than 38 (Q3 value) formed extroverts and those who scored below 29 (Q1 value) formed the group of introverts. Those who scored between Q1 and Q3 values having mixed personality traits constituted ambivert group as presented in the table: 3.

Table 3: Distribution of Sample According to Levels of Personality

	Introverts	Ambiverts	Extroverts
N	132	228	120
%	27.5	47.5	25

On the basis scores of personality test 132 (27.5%) school adolescents out of 480 formed the group of introverts, 228 (47.5%) comprised an ambivert group whereas 120 (25%) were grouped as extroverts.

Similarly when examination stress scale was applied to the school adolescents, three groups were framed as:
1. High Examination Stress Adolescents Group (HESAG)
2. Average Examination Stress Adolescents Group (AESAG)
3. Low Examination Stress Adolescents Group (LESAG)

On the basis of Q1 and Q3 values of scores, students who scored more than 38 (Q3 value) were included in group having high examination stress, school adolescents who got less than 24 scores (Q1 value) formed the group having low examination stress whereas those whose scores ranged between 24 and 38 (Q1 and Q3 values) were included in group having average examination stress as presented in the table 4.

Out of 480 subjects 140 (29.17%) constituted LESAG, 190 (39.58%) formed AESAG whereas 150 (31.25%) subjects formed high examination stress group (HESAG).

Table 4: Distribution of Sample According to Examination Stress

	Low Examination Stress Adolescents Group	**Average Examination Stress Adolescents Group**	**High Examination Stress Adolescents Group**
N	140	190	150
%	29.17	39.58	31.25

Statistical Treatment of The Data

To find out the significance of difference between means of different groups understudy, t-test was applied. ANOVA was used to find out difference within different variables of the present study.

Examination Stress among School Adolescent

To find out examination stress among school Adolescents the scores obtained on examination stress scale were computed. Mean score and its standard deviation have been shown in Table

Table 5: Examination Stress among School adolescent

Examination Stress		**Level of Examination Stress**						
Mean	**32.40**	**Groups**	**Total**	**%**	**Male**	**%**	**Female**	**%**
SD	10.35	HESAG	140	29.17	60	42.86	80	57.14
N	480	AESAG	190	39.58	89	46.84	101	53.16
SE_m	0.472	LESAG	150	31.25	100	66.67	50	33.33

It shows that mean value of the scores of stress due to examination is 32.40. The standard deviation has been found to be 10.35 where as its standard error (SE_M) is 0.472. The total number of school adolescents for the present study was 480. The total score for high examination stress was 140 where as mean score has been found to be 32.40. It indicates that the group of students who were studied as subjects for the present study had an average examination stress. But when 25th percentile (P25) and 75th percentile (P75) were calculated from the examination stress scores, three groups were formed namely High Examination Stress (HESAG) group, Average Examination Stress (AESAG) group and Low Examination Stress (LESAG) group.

It indicates that only 29.17 percent school adolescents had high examination stress, 39.58 percent of them suffered from average examination stress whereas only 31.25 percent of them felt low examination stress as shown in Figure: 1.
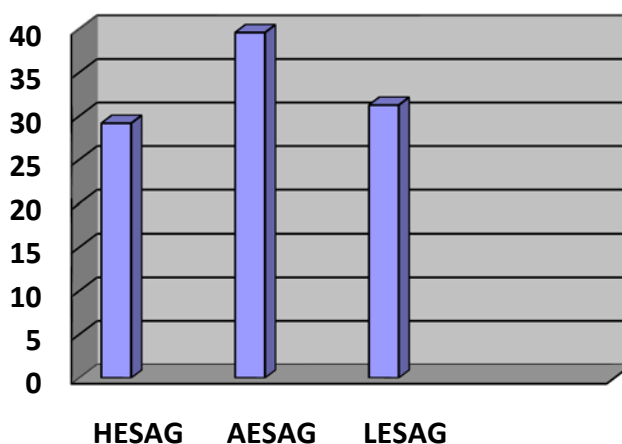

Figure 1: Levels of Examination Stress vs. Percentage of School Adolescents

Out of 140 adolescents of HESAG 60 (42.86%) were male and 80 (57.14%) were female. Similarly 89 (46.84%) male and 101 (53.16%) female comes in the AESAG whereas 100 (66.67%) male and 50 (33.33%) female were in the LESAG.

It is clear that in the present study that large number (39.58%) of the total adolescents have an average level of stress and a considerable number have high level of stress. (Table: 4)

The findings of the present study have revealed that majority of the school adolescents suffer from examination stress.

Examination Stress among School Adolescents In Relation To Their Gender
The scores obtained for the examination stress scale were analyzed with the help of t-test. It was found that the mean score of male school adolescents was 25.73 whereas mean score of female school adolescents was found to be 39.08.

The mean difference between the two groups was found to be significant at .01 levels, t value being 18.8418 as shown in table 6.

Table 6: Examination Stress among Male and Female School Adolescents

	Male	Female	Level of Significance
N	240	240	t-value 18.8418
Mean	25.73	39.08	p < .01
SE_M	0.304	0.64	df 478
			SE_D 0.709

The results revealed that the mean score of male adolescents was less than the mean scores of female adolescents indicating that female adolescents feel more examination stress than male school adolescents and there was a significant difference between them at 0.01 level as the t-value was found to be 18.8418 (P < 0.01). Mean score of female adolescents was more (39.08) as compared to mean scores (25.73) of male school   adolescents which is also shown in Figure: 2.
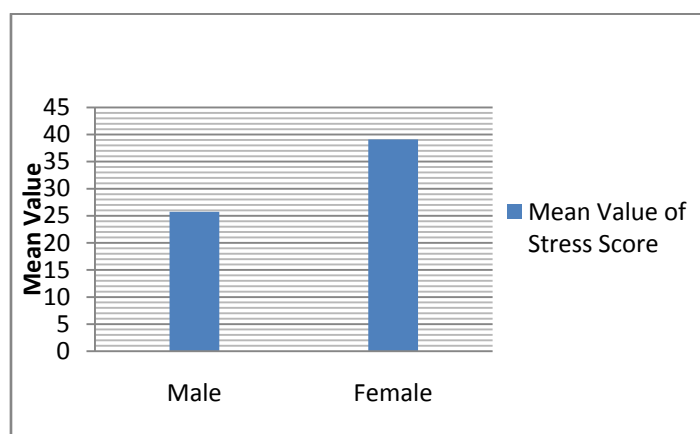

Figure: 2 Examination Stress Mean vs. Male and Female

It is also clear from Figure: 2 that female students exhibit more examination stress as compared to male students. The first hypothesis that there is no significant difference in the examination stress of male and female school adolescents stands rejected because the

findings indicated significant difference between the examination stress of male and female school students.

Examination Stress among Female Adolescents of Private and Government School
From table: 7 it is clear that female adolescent of government schools face more examination stress than private school. Mean score of examination stress of private school female adolescent is 37.08 whereas of government school it is 41.08.
Table: 8 says that male adolescent of private schools suffer more with examination stress (mean score 30.05) than government school male adolescents (mean score 21.41)

Table 7: Examination Stress among Female Adolescents of Private and Government School

	Private School	Government School	Level of Significance
N	120	120	t-value 4.7521
Mean	37.08	41.08	df 238
SE$_M$	0.58	0.61	SE$_D$ 0.842
			p < .01

Table 8: Examination Stress among Male Adolescents of Private and Government School

	Private School	Government School	Level of Significance
N	120	120	t-value 12.403
Mean	30.05	21.41	df 238
SE$_M$	0.54	0.44	SE$_D$ 0.697
			p < .01

Examination Stress among School Adolescents Having Different Levels of Intelligence
One objective of the study was to find the impact of intelligence on the examination stress among school adolescents having different levels of intelligence. In view of this, three levels of examination stress namely, high, average and low were compared with the three levels of intelligence i.e. high, average and low. Students having different levels of intelligence exhibit difference in examination stress. There is a significant difference between the high and low intelligent adolescents for feeling stress of examination as shown in Table: 9.

Table 9: Mean Scores of Examination Stress Pertaining To Different Levels of Intelligence

Level of Intelligence	Examination Stress			
	N	Mean	%	SD
HIAG	184	25.82	38.33	8.80
AIAG	160	32.50	33.33	7.71
LIAG	136	39.07	28.33	10.69

The mean value of scores on examination stress for high intelligent adolescents was 25.82 whose total number was 184 (38.33%), for average group of 160 (33.33%) adolescents the mean score was 32.50 whereas mean score for 136 (28.33%) low intelligent adolescents was 39.07 as shown in Figure: 3.

Analysis of variance (ANOVA) was applied to find out the differences between and among the above mentioned groups. The results have been presented in table: 10.

Table 10: Examination Stress among School Adolescents Having Different Levels of Intelligence

Intelligence versus Examination Stress	Total Sum of Squares	Mean Squares	Df	Level of Significance
Between Means	13846.308	6923.154	2	F value 84.566
Within Groups	39050.405	81.867	477	P < 0.01

The findings explored that the total sum of squares of scores between the means was 13846.308 and within groups was 39050.405. Whereas the mean squares or variance of scores of students at different levels of examination stress and intelligence was 6923.154 and within these groups was 81.867 when F-ratio was computed, it was found to be 84.566 (at df 2 & 477) showing a significant difference between the levels of intelligence with respect to levels of stress among school adolescents. The significant difference has been found at 0.01 levels. The results indicated that the school adolescents of 11th class having different levels of intelligence suffer from different levels of examination stress.

The second hypothesis of the present study which states that no significant difference exists in the examination stress of school adolescents having high and low intelligence, stands rejected in view of the results of the study in which significant difference has been found. In other words intelligence has an impact on the examination stress of school adolescents.
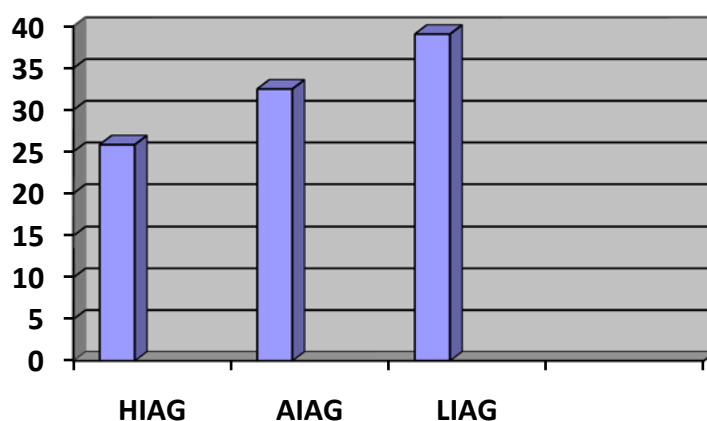

Figure 3: Examination Stress Mean vs. Intelligence

It is clear from the figure that high intelligent students have less examination stress than the students having low level of intelligence. The findings of the present study explored a significant difference among students of different levels of intelligence for having examination stress.

Examination Stress among School Adolescents Having Different Levels of Personality
Keeping in view the objectives of the study, one purpose was to find out the impact of personality on the examination stress among school adolescents. The three groups according to the levels of personality i.e. Extroverts, Ambiverts and Introverts were compared with the three groups of Examination Stress i.e. HES, AES and LES.

Extroverts, introverts and ambiverts differ significantly for having examination stress as shown in Table 11.

Table 11: Means of Examination Stress Pertaining To Different Levels of Personality

Level of Personality	Examination Stress			
	N	Mean	%	SD
Extroverts	132	26.19	27.5	6.79
Ambiverts	228	31.76	47.5	9.24
Introverts	120	39.14	25	10.87

Table: 11 shows the mean scores and standard deviation of examination stress and personality test of school adolescents. The mean value of scores on examination stress scale for extroverts was 26.19 and total number was 132 (27.5%), for mixed group mean value was 31.76 and total number was 228 (47.5%) whereas scores for 120 (25%) introverts was 39.14 as shown in Figure 4.
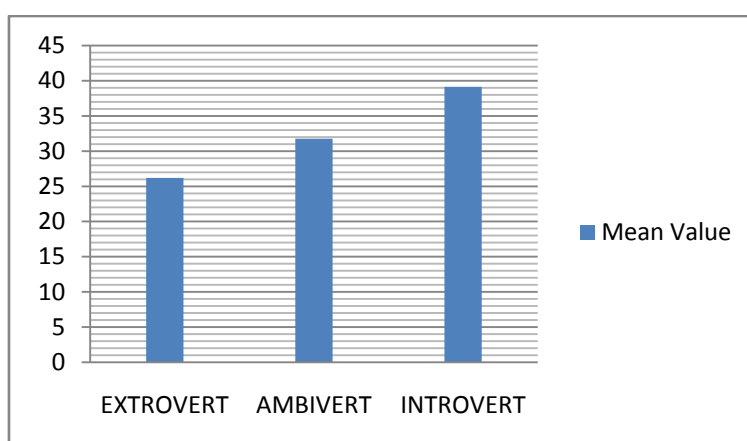
Figure 4: Examination Stress Mean vs. Personality

To find out the differences between and among the above mentioned groups, analysis of variance was applied. The results have been presented in table: 12.

Table 12: Examination Stress among School Adolescents Having Different Levels of Personality

Personality versus Examination Stress	Total Sum of Squares	Mean Squares	Df	Level of Significance
Between Means	10583.915	5291.957	2	F = 63.936,
Within Groups	39481.023	82.769	477	P < 0.01

It shows the sum of squares between means is 10583.915 whereas within groups is 39481.023. The value of mean squares of scores between the means of different groups of personality and Examination Stress is 5291.957 but within groups is 82.769 at df 2, 477. Thus, the value of F-ratio 63.936 has been found to be significant at 0.01 levels.

The third hypothesis of the present study that there is no significant difference in the examination stress of extroverts and introverts, stands rejected as significant difference (F=63.936, P < 0.01) is observed in the examination stress of extrovert and introverts groups. It indicates that introverts have more examination stress than extroverts.

Examination Stress among School Adolescents Having Different Levels of Achievement Motivation

For assessment of stress related to examination versus different groups of achievement motivation, the scores of three groups of achievement motivation (high, average, low) and examination stress (high, average and low) among school adolescents were compared using analysis of variance as shown in Table 13.

Table 13: Examination Stress in Relation to Achievement Motivation of School Adolescents

Achievement Motivation vs. Examination Stress	Total Sum of Squares	Mean Squares	Df	Level of Significance
Between Means	8288.728	4144.364	2	F = 45.885,
Within Groups	43083.110	90.321	477	P < 0.01

The findings explored that there was a significant difference in the examination stress of students having high achievement motivation and those with low achievement motivation. The findings explored that the total sum of squares of scores between the means was 8288.728 and within groups was 43083.110.Whereas the mean squares or variance of scores of students at different levels of achievement motivation & stress was 4144.364 and within these groups was 90.321. The value of F-ratio has been found to be 45.885 at df 2,477 which is significant at 0.01 level of significance. The fourth hypothesis that examination stress of school adolescents varies with their levels of achievement motivation is accepted. The results of the present study have supported the said hypothesis.

Table: 14 shows the mean scores, SD and number of different groups of school adolescents having examination stress with different levels of achievement motivation.

Table 14: Means of Examination Stress Pertaining Different Levels of Achievement Motivation

Level of Achievement Motivation	Examination Stress			
	N	Mean	% (Sample)	SD
High	130	26.58	27.08	8.16
Average	230	34.06	47.92	9.44
Low	120	37.72	25	10.88

The mean scores of examination stress of the group having high achievement motivation (N = 130, 27.08%) has been found to be 26.58. The average group of achievement motivation (N=230, 47.92%) has the mean value of examination stress 34.06 whereas the mean score of examination stress for the group of low achievement motivation (N=120, 25%) has been found to be 37.72 as shown in Figure 5.

Figure 5: Examination Stress V/S Achievement Motivation
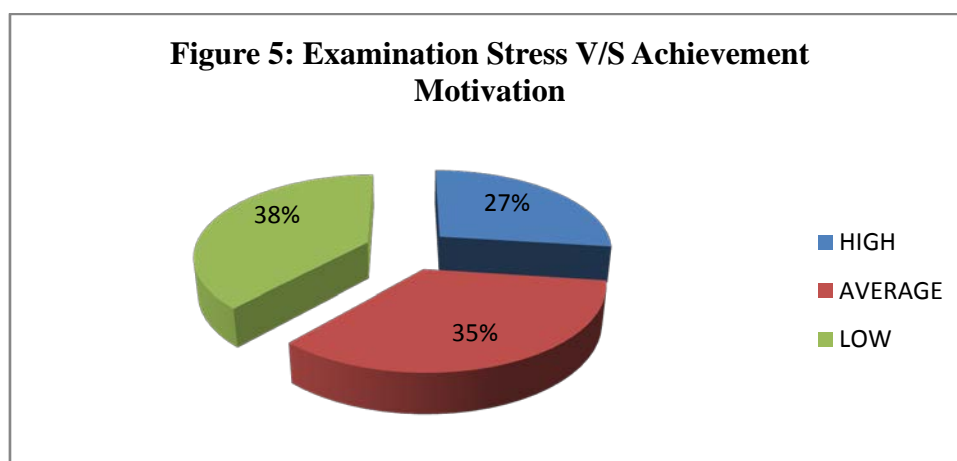
It indicates that the adolescents having low achievement motivation feel more examination stress and those with high achievement motivation suffer with less examination stress. Students of low achievement motivation have more stress than the students of high and average achievement motivation.

CONCLUSIONS

Owing to the present study following conclusions were drawn:

1. Majority of the adolescents feel stress of examination.
2. Male and female adolescents feel different levels of examination stress.
3. Female adolescents suffer more with examination stress than male adolescents.
4. The adolescents having low intelligence feel high stress than those with high intelligence.
5. Introverts suffer more with examination stress than extroverts.
6. The school adolescents having high achievement motivation feel less stress of examination than those who have low level of achievement motivation.
7. Female adolescents of government school suffer more with examination stress than private school.
8. Male adolescents of private school suffer more with examination stress than government school.

Recommendations

Following are the recommendations of the present study:

1. As per the results of the present study there is more examination stress in case of female school adolescents. It may be useful for the teachers to understand examination stress among male and female school students. An orientation to female students for reducing their examination stress should be provided.
2. As per the results of the present study students having high intelligence exhibits low examination stress. So it is recommended that stress management techniques should be provided to students with low intelligence through workshops and practical sessions.
3. The present investigation will help administers, policy makers, planners and researchers both at the national and local levels.
4. The students should be provided counseling sessions in order to develop effective strategies to avoid examination stress.

5. The students should be given training for time management so that they will able to utilize the time in proper manner leading to a better self regulatory practices. Such exercises are facilitative in promoting management of time and preparation of examinations so that they can cope up with their examination stress.
6. There should be more emphasis on such teaching learning strategies that would help students to achieve their aims and good level of achievement by developing required personality traits.
7. The findings of the study recommended that symptoms of examination stress should be diagnosed at an early stage so that students would not feel stress during their examinations.

Delimitations

Though the investigator has made a lot of effort to bring out the research work without any limitation but it is not possible to avoid some unavoidable errors. Thus, the investigator feels a few delimitations as follows:
1. Study could be conducted on large population to increase its comprehensiveness.
2. Examination stress of rural students could have been assessed to make it a comparative one.
3. Qualitative analysis of examination stress could have proved more useful.
4. It could have been better if some remedial measures for examination stress had been found out.

Suggestions

There is no meaningful research that does not provide cause for further investigation. In fact by universal opinion and experience, the solution of one problem tends to indicate many other unsolved problems, waiting for scientific probing. So, in the whole process of this piece of research the investigator however, feels to pen-down the following suggestions for the future researchers.
1. The study as confined only to Dehradun, it is therefore suggested that study may be conducted in other cities to increase comprehensiveness of its conclusions.
2. The sample of only 480 school adolescents was considered in the study. A study may be conducted on large sample to search at very definite conclusions regarding examination stress, intelligence, personality and achievement motivation.
3. Such a study can be conducted on the sample of rural adolescents and at senior secondary level and college level also.
4. Examination stress of the adolescents of various disciplines like natural sciences and social sciences can be measured.
5. Different variables like study habits, interests, adjustment and self-concept can be undertaken in relation to examination stress.
6. A study should be conducted to find out the remedial measures for the stress of adolescents.

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