Vol III Issue II August 2013

Impact Factor : 1. 2018

ISSN No :2231-5063

Monthly Multidisciplinary Research Journal

Golden Research Thoughts

IMPACT FACTOR : 1. 2018

Welcome to ISRJ

RNI MAHMUL/2011/38595 **ISSN No.2230-7850**

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

Address:-Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India
Cell : 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.isrj.net

Golden Research Thoughts

ISSN 2231-5063
Volume-3, Issue-2, August-2013

Stress Tolerance, Altruistic Behaviour, And Level Of Aspiration Among Adolescent Students

Biju Abraham A. R. And H. Sam Sananda Raj

Guest Lecturer, Department of Psychology, University of Kerala, Karivattom Campus, Thiruvananthapuram,Kerala
Former Professor and Head, Department of Psychology, University of Kerala, Kariavattom Campus. Thiruvananthapuram Kerala

Abstract: To understand the psychological variables like stress tolerance, altruistic behaviour, and level of aspiration among adolescent students in the present world is unavoidable. This study further aimed to find the significant differences among the adolescent students based on sex, educational institution, and also on the three religious groups, namely Hindus, Christians, and Muslims for the study variables. Stratified sampling method was used to select the sample. The sample consisted of 105 adolescent students. The tools used for the study were Stress Tolerance Scale, Altruistic Behaviour Index, and Level of Aspiration Scale. The statistical techniques used were t test, one-way ANOVA, Duncan test, and Pearson product method of correlation. The results showed that there existed significant difference between male and female adolescent students, adolescent students studying in schools and colleges, and also among the different religious groups for the variables stress tolerance, altruistic behaviour, and level of aspiration. Significant relationships among the variables are also existed.

Keyword:psychological ,altruistic behaviour , Stress Tolerance , Adolescent Students.

INTRODUCTION:

The ability to overcome stress, helping others, and aspiration about the future are necessary for adolescent students to adapt their lives into a successful way. The term 'Stress Tolerance' refers to a person's ability to withstand stress without becoming seriously impaired (Carson, Butcher, & Mineka, 1996). Helping others is the altruistic behaviour (Smith, & Sarason, 1986). Altruism is a code ethics which hold the welfare of others as the standard of good and self sacrifice as the only moral action. Helping others without expecting any reward enhances our stress tolerance level, and helps us set our targets in a meaningful way. Our aspirations not only prompt us help others, but help us remain in a stress-tolerant level. So one's ability to tolerate stress, altruistic behaviour, and level of aspiration are inter-related. Aspiration is a strong desire to achieve something high or great. The level of aspiration implies the degree of strive maintained by an individual to accomplish or to attain a particular goal. So aspiration is necessary for striving towards a goal. The ability to tolerate stress, altruistic behaviour, and level of aspiration is differed in adolescent students.

Atkinsons and Litwin (1960) were found that anxiety as a factor, which interferes intellectual performance of the adolescents; stress reduces efficiency and accuracy in work. Due to the negative effect of the stress in mind and body, individual, becomes unable to show performance of the level permitted by his aptitude and capabilities.

Kruger, and Daniel (2001) in his study 'psychological aspects of adaptations for kin directed altruistic helping behaviors' concluded that altruistic behaviors are consistent with inclusive fitness theory. Individuals will be more likely to provide valuable assistance when the target is a close family member. These actions may be costly to the donor and therefore considered altruistic from the perspective of individuals, however they benefit the genes promoting the actions. The additional domain found to exhibit kin- selection, material wealth, may provide a new direction for future research on helping behaviors.

Annaraja and Sheeja (2003) studied the influence of level of aspiration and study habits on achievement in Mathematics. The sample for the study consisted of 250 higher secondary adolescents and used normative survey method. The tools used are level of aspiration scale and study habit inventory. The study found that 15 per cent of adolescents have high level of aspiration, 15 per cent of adolescents have high level of study habits, 16 per cent of adolescents have high level of achievement in Mathematics, and there is significant influence of level of aspiration and study habits on achievement in Mathematics of higher secondary adolescents.

HYPOTHESES

1. There will not be any significant difference between male and female adolescent students in their stress tolerance, altruistic behaviour, and level of aspiration.
2. There will not be any significant difference between adolescent students categorized on the basis of their educational institution for the variables stress tolerance, altruistic behaviour, and level of aspiration.
3. There will not be any significant differences among adolescent students categorized on the basis of different

religious groups (Christian / Hindu / Muslim) in their stress tolerance, altruistic behaviour, and level of aspiration.
4. There will not be any significant correlations among stress tolerance, altruistic behaviour and level of aspiration.

METHODOLOGY

The plan and procedure or methodology for the investigation is presented below under various headings.

(a). Sample:

Stratified sampling method was used to select the sample for the investigation. The sample was drawn from different schools and colleges from Trivandrum. The sample consisted of 105 adolescent students (50 males and 55 females). Adequate representations were given to factors like sex, religion (Christian / Hindu / Muslim), and educational institution (School / College). Details of the sample are presented in Tables 1, 2, and 3.

(b). Tools Used for the Investigation

The following tools were used to procure the necessary information regarding the different variables under study:

(1). Personal Information Schedule

A personal information schedule was prepared in order to collect data regarding relevant variables such as sex, religion, educational institution. The personal information schedule was administered first, and the respondents were asked to fill in their personal data without leaving any information incomplete.

(2). Stress Tolerance Scale

The term stress was taken here to mean psychological stress. Psychological stress involves demands on the organism, which are perceived to be beyond its coping capacity. It includes the cognitive demands in terms of upsetting the steady flow of life, as well as the systemic stress in terms of known physiological response within the organism. If coping is successful, the organism comes back to the normal state. Psychological disturbances associated with stress, not effectively coped may upset the body chemistry. Factors, which help a person to tolerate stress, or are associated with increased stress tolerance-intra-individual and extra-individual-may, help in building resistance. For measuring stress tolerance, the psychological test namely Stress Tolerance Scale constructed and standardized by Reshmi, and Sananda Raj (1999) were used. The scale consisted of 24 items.

(d) Reliability: Split-half reliability method was used to estimate the reliability of the test. The test was split into two equal halves on the basis of odd items and even items (odd-even reliability method). A correlation coefficient between the two halves was found using Carl Pearson's Product Moment Formula. Thus the half test reliability coefficient of 0.80 was obtained. The reliability of the whole test was estimated using Spearman-Brown formula. The reliability coefficient thus obtained was 0.89. This index of reliability showed that Stress Tolerance Scale is highly reliable. This value of reliability is significant at .01 level.

(c) Validity: The validity of the test was estimated with the help of empirical/criterion related validity. It was found out by correlating the "Stress Tolerance Scale" with "Stress Tolerance Inventory" developed by Balagangadharan (1988). The correlation coefficient was estimated as 0.87. This index of validity showed that Stress Tolerance Scale is adequately valid. This value is significant at .01 level.

(3). Altruistic Behaviour Index

Altruistic Behaviour Index was developed and standardized by Sreekumar & Sanada Raj (1999) to assess the altruistic behaviour of the people. Altruism refers to voluntary acts that are carried out without any, expectation of reward, except possibility the good feelings of having done something useful (Smith and Sarason, 1986). These are 20 items in the scale with equal number of positive and negative items.

(c) Reliability: Split-half reliability method was used to estimate the reliability of the test. The test was split into two equivalent halves on the basis of odd items and even items (odd-even reliability method). A correlation coefficient between the two halves was found using "Carl Pearson's Product-Moment Formula". Thus, the half test reliability coefficient of 0.84 was estimated. The reliability of the whole test was found out using "Spearman-Brown formula". Thus a reliability coefficient of 0.91 was obtained and the value is significant at .01 level.

(d) Validity: The validity of the test was estimated with the help of empirical/criterion related validity. It was found out by correlating the Altruistic Behaviour Index with some external criterion, i.e., "An Index of Social Value" (Sananda Raj, 1998). Both tests administered to a sample of 50 subjects and the correlation coefficient was estimated the value is significant at .01 level to be 0.82. The index of validity showed that the Altruistic Behaviour Index is adequately valid.

(4) Level of Aspiration Scale

This inventory was developed by Sananda Raj, Annaraja and Mohanan (2001) to measure the level of aspiration of adolescent students. The statements of the test were simple, declarative about self and seeking responses in five options. A high score on the test indicated the possession of higher level of aspiration and vice-versa. The major variables of level of aspirations are vocational aspiration, educational aspiration, occupational aspiration, aspiration towards married life, political aspiration, social aspiration, aspiration towards literacy development etc. The reliability and validity of the test has been determined.

(c) Validity: Validity of the scale had been established by correlating the scores of the scale with the scales of Attitude towards Academic Work and Achievement motivation and the validity off were found to be and respectively (Sananda Raj, Annaraja, & Mohanan, 2001). This indicates that the scale is valid is measuring the level of aspiration of

adolescent students.

(d) Reliability: The test – retest reliability of the scale reported to be 0.92, on a sample of 75 adolescents, with a time interval of one month. The odd even reliability was found to be 0.95 after correlation for alternation, calculation on a scale of 60 adolescents. (3). Administration and Scoring of the Tools.

The procedure for administration and scoring of the above tools were the same, and the details are given below:

(a). Administration: The copies of the inventories were distributed to the subjects. There were five choices A, B, C, D, and E for each item. A- denotes 'strongly agree', B- denotes 'agree', C- denotes 'undecided', D- denotes 'disagree', and E- denotes 'strongly disagree'. The subjects were asked to read each statement carefully and indicate their answers in the appropriate choices.

(b). Scoring: The answer sheets were checked for omissions. For positive items, a weightage of 5, 4, 3, 2, and 1 were given for A, B, C, D, and E respectively. In the case of negative items, the procedure was reversed. The total scores for each subject were obtained by adding the scores for each item.

THE STATISTICAL TECHNIQUES

The data were analyzed using the following statistical techniques:

(a). The t test

The t test is considered an appropriate test for comparing the significance of difference between the means of two samples. The method suggested by Garrett (2007) was used for this purpose.

(b). One-way ANOVA

One-way analysis of variance was used to compare means of two or more samples. It may be mentioned that the ANOVA furnishes an overall test of significance of the difference among means of the three groups of subjects, for a variable. Analysis of variance as explained by Garrett (2007) was carried out for calculating the F ratios.

(c). Duncan Test

It is a post hoc test (or multiple comparison test) used to determine the significant differences between group means in an analysis of variance setting (Garrett, 2007).

(d). Pearson Product-Moment Method of Correlation

The Pearson Product-moment method of correlation (Garrett, 2007) was used to find out the correlations among the eight variables.

E. ANALYSIS AND DISCUSSION

(A). THE t TEST ANALYSIS AND DISCUSSION

a. Sex-wise: Comparison of Male and Female Adolescent students for the Stress Tolerance, Altruistic Behaviour, and Level of Aspiration:

Test of Tenability of Hypothesis 1:

The mean value (Vide Table 4) obtained for the variable Stress Tolerance by male and female adolescent students were 71.52 and 76.33 respectively. The corresponding standard deviations were 10.37 and 10.03. The t value was 2.4, which was statistically significant at 0.05 level. This indicates there was sex wise difference for the variable Stress Tolerance. From the mean values it was clear that females had higher level of stress tolerance than male adolescent students.

The Table 4 shows that the mean values obtained for the variable altruistic behaviour by male and female adolescent students were 76.38 and 74.64 respectively. The corresponding standard deviations were 12.19 and 10.76. The t value obtained was 0.77, which was not statistically significant. This means that male and female adolescent students were similar in their altruistic behaviour.

The mean values obtained for the variable level of aspiration by male and female adolescent students were 102.04 and 108.78 respectively (vide Table 4). The corresponding standard deviations were 12.08 and 11.40. The t value obtained was 2.94 which was statistically significant at 0.05 level. The results indicated that there was significant difference between male and female adolescent students in their level of aspiration. From the mean values, it was clear that, the females had higher level of aspiration when compared to male adolescent students.

On the basis of the above hypothesis 1, viz., "There will not be any significant difference between male and female adolescent students in their stress tolerance, altruistic behaviour, and level of aspiration" is accepted only for the variable altruistic behaviour, rejected for the other two variables.

b. Educational Institution-wise: Comparison of Adolescent Students Studying in Schools and Colleges for the Variable Stress Tolerance, Altruistic Behaviour, and Level of Aspiration:

Test of Tenability of Hypothesis 2:

The Table 5 revealed that the mean values for stress tolerance by School and College adolescent students were 76.31 and 71.81 respectively. The corresponding standard deviations were 11.51 and 8.78. The t value obtained was 2.25, which was significant at 0.05 level. The mean values showed that the school adolescent students had higher level of stress tolerance when compared to college adolescent students.

The mean values obtained for the variable altruistic behaviour among adolescent students studying in schools and colleges were 77.27 and 73.70 respectively (vide Table 5). The corresponding standard deviations were 11.89 and 10.80. The t value obtained was 1.61, which was not statistically significant. The mean values showed that the school and college adolescent students were equal in their altruistic behaviour.

The mean values obtained for the variable level of aspiration among school and college adolescent students were 106.13 and 105.02 respectively (vide Table 5). The corresponding standard deviations were 11.77 and 12.61.

ISSN 2231-5063
Volume-3, Issue-2, August-2013

The t value obtained was .46, which was not statistically significant. The mean values showed that the school adolescent students and college adolescent students were similar in their level of aspiration.

On the basis of the hypothesis 2, viz., "There will not be any significant difference between adolescent students categorized on the basis of educational institution for the variables stress tolerance, altruistic behaviour, and level of aspiration." was accepted for the variables altruistic behaviour and level of aspiration, and rejected for the variable stress tolerance.

(B). THE ONE-WAY ANOVA TEST AND DISCUSSION

a. Religion-wise: Comparison of Adolescent students Categorized on the Basis of Religious Groups on Stress Tolerance, Altruistic Behaviour, and Level of Aspiration:

Test of Tenability of Hypothesis 3:

The analysis of variance among adolescent students based on different religious groups was done for the variable stress tolerance, altruistic behaviour, and level of aspiration. The mean squares, sum of squares, degrees of freedom, and F-values are given in Table 6.

From Table 6, it was clear that the variable stress tolerance had no significant difference with the different religious groups of adolescent students. The F value obtained was 0.86, which was not statistically significant. Therefore in this study, adolescent students belonged in different religious groups were similar in their stress tolerance.

The F-ratio obtained for the variable altruistic behaviour was 3.09, which was significant at .05 level (vide Table 6). The results revealed that there were significant differences among the three religious groups for the variable altruistic behaviour. So post hoc comparison was done using the Duncan procedure for identifying where the differences existed, came out with the following results. The details are given in Table 7.

The results further revealed that the Hindus showed similar level of altruistic behaviour (M = 78.15) with the Christians (M = 74.69). But the Hindus and Christians had higher level of altruistic behaviour than Muslims (M=62.67).

From Table 6, it was clear that the obtained F value was 0.13 which was not statistically significant for the variable level of aspiration. Therefore in this study, adolescent students were in the different religious group had similar level of aspiration.

On the basis of the above hypothesis 3, viz., "There will not be any significant differences among adolescent students categorized on the basis of different religious groups (Christian / Hindu / Muslim) in their stress tolerance, altruistic behaviour, and level of aspiration" was accepted for the variable stress tolerance and level of aspiration, and rejected for the variable altruistic behaviour.

(C). CORRELATION ANALYSIS

Correlations among the variables stress tolerance, altruistic behaviour and level of aspiration:

Test of Tenability of Hypothesis 4:

The results of Pearson product moment method of correlation among the three variables of the study are stress tolerance, altruistic behaviour, and level of aspiration are presented in Table 8.

(a) Correlation between Stress Tolerance and Altruistic Behaviour:

The correlation between Stress Tolerance and Altruism obtained on a sample of 105 adolescent students was found 0.250, which is significant at .05 level. This 'r' is verbally interpreted as substantial or marked relationship. Hence, the relation between Stress Tolerance and Altruism is substantial.

(b) Correlation between Stress Tolerance and Level of Aspiration:

The r value obtained of the variables stress tolerance and level of aspiration for a sample of 105 adolescent students was 0.144, which was not significant statistically. This means that there were no relationship between the variables stresses tolerance and level of aspiration.

(c) Correlation between Altruistic Behaviour and Level of Aspiration:

The correlation between altruistic behaviour and level of aspiration obtained on a sample of 105 adolescent students was found 0.313, which is significant at .01 level. This 'r' is verbally interpreted as substantial or marked correlation. This means that the relation between altruism and level of aspiration is verbally interpreted as substantial.

On the basis of the above hypothesis 4, viz., "There will not be any significant correlations among stress tolerance, altruistic behaviour and level of aspiration" is accepted for the variable Altruistic Behaviour, and rejected for the other two variables.

D. MAJOR FINDINGS

The following are the major findings of the present study:

1.There was significant difference between male and female adolescent students for the variables Stress Tolerance and Level of Aspiration. But they were not differed for the variable Altruistic Behaviour.
2.Significant difference was existed in adolescent students who were studying in schools and colleges for the variable Stress Tolerance alone. For the other variables like Altruistic Behaviour and level of Stress Tolerance, they were similar.
3.There was significant difference among the adolescent students who belonged in different religious groups of Christian, Hindu, and Muslim on the variable Altruistic Behaviour. Hindus showed similar level of altruistic behaviour with the Christians. But the Hindus and Christians had higher level of Altruistic Behaviour than Muslims. Further findings based on religion were Christians, Hindus, and Muslims had similar level of Stress Tolerance and Level of Aspiration among the adolescents.
4.Relationship was existed between the variable Stress

ISSN 2231-5063
Volume-3, Issue-2, August-2013

Tolerance with Altruistic Behaviour, and no relation with Level of Aspiration. But the variable Altruistic behaviour was correlated with the Level of Aspiration among adolescent students.

REFERENCES

Annaraja, P. & Sheeja, C. (2003). Influence of level of aspiration and study habits on achievement in mathematics of higher secondary students. Research and Reflections on Education. 1(4), 9-14.

Atkinsons, & Litwin. (1960). Intellectual Performance of the Adolescents. Delhi: GOYL, Saab.

Balagangadharan. (1988). Stress Tolerance Scale. Department of Psychology, University of Kerala.

Garrett, H. E. (2007). Statistics in Psychology and Education. New Delhi: Paragon International Publishers.

Kruger, & Daniel, J.(2001). Psychological Aspects of Adaptations for Kin Directed Altruistic Helping Behaviours. Midwestern American University.

Reshmi, C. S. & Sananda Raj, H. S. (1999). Stress Tolerance Scale and Manual. Thiruvananthapuram: Department of Psychology, University of Kerala.

Sanada Raj, H. S. (1998). An Index of Social Value and Manual. Department of Psychology, University of Kerala.

Sananda Raj, H. S., Annaraja, P., & Mohanan, T. (2001). Level of Aspiration Scale. Department of Psychology, University of Kerala.

Smith, R. E., Sarason, I. G., & Sarason, B. R. (1986). Psychology: The Frontiers of Behaviour. New York: Harper & Row.

Sreekumar, R., & Sananda Raj. H. S. (1999). Altruistic Behaviour Index and Manual. Thiruvananthapuram: Department of Psychology, University of Kerala.

TABLE 1

Sex-wise Distribution of the Sample

Sl. No.	Sex	N
1	Male	50
2	Female	55
Total		105

TABLE 2

Class-wise Distribution of the Sample

Sl. No.	Educational Institution	Number
1	School	52
2	College	53
Total		105

TABLE 3

Religion-wise Distribution of the Sample

Sl. No.	Religion	Number
1	Christian	40
2	Hindu	30
3	Muslim	35
Total		105

TABLE 4

Data and Results of *t* test for the study variables based on sex

Sl. No.	Variable	Sex	N	Mean	Standard deviation	*t* value
1	Stress Tolerance	Female	55	76.33	10.03	2.41*
		Male	50	71.52	10.37	
2	Altruistic Behaviour	Male	50	76.38	12.19	0.77
		Female	55	74.64	10.76	
3	Level of Aspiration.	Female	55	108.78	11.40	2.94*
		Male	50	102.04	12.08	

Note: *indicates the *t* value is significant at .05 level.

TABLE 5

Data and Results of *t* test for the study variables based on Educational Institution

Sl. No.	Variable	Educational Institution	N	Mean	Standard deviation	*t* value
1	Stress Tolerance	College	53	76.31	8.78	2.25*
		School	52	71.81	11.51	
2	Altruistic Behaviour	School	52	77.27	11.89	1.61
		College	53	73.70	10.80	
3	Level of Aspiration.	School	52	106.13	11.77	0.46
		College	53	105.02	12.61	

Note: * indicates the *t* value is significant at .05 level.

TABLE 6

Data and Results of one-way ANOVA for the study variables based on Religion

Sl. No.	Variable	Source	Sum of Squares	Df	Mean squares	F
1	Stress Tolerance	Between Groups	169.289	2	84.644	0.86
		Within Groups	11134.559	102	109.962	
2	Altruistic Behaviour	Between Groups	776.687	2	388.344	3.09*
		Within Groups	12833.446	102	125.818	
3	Level of Aspiration.	Between Groups	438.464	2	19.232	0.13
		Within Groups	15323.250	102	150.228	

Note: * indicates the F **value** is significant at .05 level.

TABLE 7

Results of Duncan Procedure for Altruistic Behaviour

Sl. No	Group	N	Mean	1	2	3
1	Christian	68	74.69	..	..	*
2	Hindu	34	78.15	..	..	*
3	Muslim	3	62.67	..	..	..

Note:* Indicates significant difference between the groups compared

ISSN 2231-5063
Volume-3, Issue-2, August-2013

TABLE 8

Correlation among three Variables Under Study

No.	Variables	1	2	3
1.	Stress Tolerance	( )	0.250*	0.144
2.	Altruistic Behaviour	. .	( )	0.311**
3.	Level of Aspiration	. .	. .	( )

Note: * Correlation coefficient is significant at .05 level
Note: * *Correlation coefficient is significant at .01 level