"Assessment of emotional intelligence and academic stress among adolescent students of a selected school of South 24 Parganas, West Bengal."

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Abstract:

Background: Adolescent is a period of transition from childhood to adulthood. It is characterized by rapid physical , biological and hormonal changes resulting in psychosocial , behavioural and sexual maturation between the ages of 10-19 years in an individual.

Materials and Methods: The investigator conducted a non-experimental descriptive study on assessment of emotional intelligence and academic stress among adolescent students of a selected school of South 24 parganas, West Bengal with the objectives to assess emotional intelligence and academic stress among adolescent students. 200 adolescent students were selected by stratified random sampling method from class of IX, X,XI and XII . Tools used for data collection were Questionnaire for assessment of Academic Stress Scale by Rajendran andKaliappan and Modified Emotional Intelligence assessment scale.

Result: The study findings revealed that, 94% students of secondary classes and 86% students of higher secondary classes need for enrichment in the domain of emotional awareness where as 90% students of secondary classes and 74% students of higher secondary classes are effective functioning in relationship management.

Majority i.e 62% students of higher secondary class experience moderate stress where as 40% students of secondary classes experience slight stress and 2% students have high stress. There was negativerelationship (r = -0.45) found between emotional intelligence and academic stress among adolescent students of selected school which is found to statistically evident from 't' value (7.08) at the level of 0.001 level of significance. It also found that there is significant association between emotional intelligence and academic stress with the adolescent's age, sex, place of living, class and mother's educational level at 0.5 and 0.001 level of significance.

Conclusion: Considering the findings, the study could be implicated in community health nursing practice as it can be helpful in identifying the adolescent students with different level of emotional intelligence and academic stress. Findings could be effective in developing awareness programme on improvement of emotional intelligence of the adolescent students and counselling session can be arranged for the students with high academic stress along with their parents and the teachers. Future studies in this area could be conducted to assess the impact of emotional intelligence on academic achievement and test anxiety among this population.

Key Word: Emotional Intelligence, Academic Stress.

I. Introduction

WHO has defined adolescence as the age group of 10-19 years and one in every 5 people in the world is an adolescent. It is a transitional stage of physical, physiological and psychological development from puberty to legal adulthood. Worldwide more than 1.2 billion are adolescents. Of these about 85% live in developing countries and adolescents represents about a 5th of India's population.[1]

In India , percentage of adolescent population is 19.6% which comprises a great proportion of total population(approx.243 million) . Among them 54% are school going adolescent. Among those,upper secondary school gross enrolment ratio (2008-2012) is 49.9.[2]

Adolescents are the future of tomorrow. The life of an adolescent is of great importance as it one of the periods of life. They not only constitute a large group but are also the vulnerable or special risk group of our community. While adolescence is a time of tremendous growth and potential, it is also a time of considerable

risk with regard to behaviour, as many adolescents face pressure to use alcohols, cigarettes, or other drugs and behavioural patterns, and also suffers from different types of stress like academic stress.

Academic stress is mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure. Academic stress reflects perception of individual's academic frustration , academic conflict, academic pressure and academic anxiety.

Emotional Intelligence refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and in our relationships.

Golemanin his research has identified a set of competencies that differentiate children with emotional intelligence. He defined emotional intelligence as the ability to monitor one's own and other people's emotions, to discriminate between different emotions and label them appropriately, and to use emotional information to guide thinking and behaviour. According to him,the components of emotional intelligence are self awareness, self regulation, motivation, empathy and social skill. [2]

II. Materials And Methods

A non experimental study was carried out to assess emotional intelligence and academic stress of adolescent students of a selected school of South 24 Parganas , West Bengal. This study was conducted atGhasiara Vidyapith (H.S),Sonarpur, South 24 Parganas. In this study,50 students were selected randomly from each class of IX, X, XI, XII. Both girls and boys students were included in the study. The sample size for final study was 200.

Study Design: Cross sectional Community based study.

Study Location: This study was conducted at Ghasiara Vidyapith (H.S),Sonarpur, South 24 Parganas.

Study duration: November 2017 to December 2017.

Sample Size: 50 students were selected randomly from each class of IX, X, XI, XII. Both girls and boys students were included in the study. The sample size for final study was 200.

Sample Size Calculation: Pilot study was done to assess the feasibility of the study. Sample size was calculated by using power analysis. The power analysis used with 5% level of significance. The power analysis revealed sample size was 123, where samples were taken 200. Samples were selected by proportionate stratified random sampling technique.

Subjects & Selection Method: For this study, all the roll numbers of the students of Class IX, X, XI and XII were collected from the school registers. The roll numbers were put into blind folded piece of papers and mixed separately in four segments designated for each class. 50 number tagged papers were then randomly selected from each segment. Students belonged to the selected roll numbers were selected as study sample.
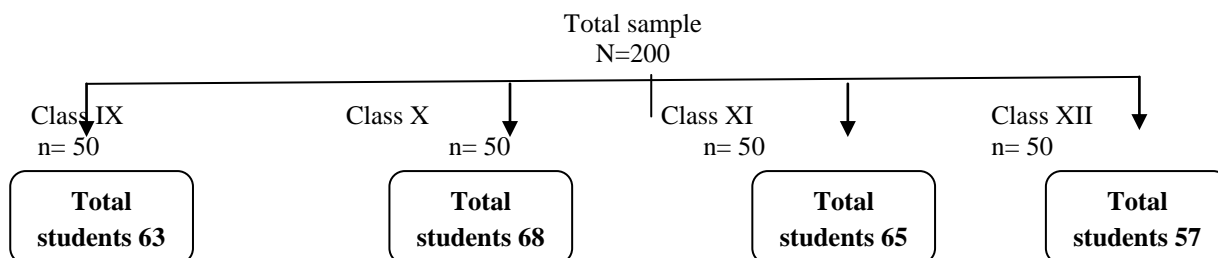
Total sample
N=200

Class IX	Class X	Class XI	Class XII
n= 50	n= 50	n= 50	n= 50
Total students 63	**Total students 68**	**Total students 65**	**Total students 57**

Figure 1 : Schematic representation of sampling plan

Inclusion Criteria: Adolescent students:
a.   Who were studying in class IX, X, XI, XII
b.   Who were willing to participate in the study.
c.   Who were available during data collection period.
d.   Who can read and write in English and Bengali

Exclusion Criteria:
•   Students with self reported mental illness
•   Students with self reported physical illness

Procedure methodology

Permission was obtained from respective authority to use these two standardized tools for the present study. Ehithical permission was taken from Ethics Committee. Informed consent was taken from parents and adolescent. Anonymity and confidentiality were assured. Administrative permission was taken from school

authority. Data were collected through three self administered questionnaires. Demographic information was collected through one self prepared validated reliable tool which consisted of 14 items.

Emotional intelligence refers to ability to perceive , understand, manage own emotion as well as other's emotions which will be assessed in four domains emotional awareness, emotional management, social emotional awareness and relationship management measured by the Modified Emotional Intelligence assessment scale .

In this study, academic stress refers to stress experienced by the adolescent students associated with the personal inadequacy ,fear of failure, interpersonal difficulties with teachers, teacher-pupil relationship / teaching methods, inadequate study facilities which was measured by Academic Stress Scale of Rajendran and Kaliappan.

The reliability of both standardized toolswere established by internal consistency and 'r' was calculated by Cronbach's Alpha method and the result were 0.65 and.72 respectively. So, the both tools were reliable.

Statistical Analysis

Data were analysed using SPSS version 23. Frequency distribution was used to identify the prevalence of academic stress among the adolescent. Mean and frequency percentage were calculated in the different areas of emotional intelligence. In addition*Pearson r* was calculated to find out the relationship between academic stress and emotional intelligence and chi square was calculated to find out association with academic stress, emotional intelligence with selected variables.

III. Result

Data presented in table 3 reveals that majority of the students belonged to the age group of 15-16 years, which were 56% and 41% from the secondary and higher secondary classes respectively. Data further reveals that , majority of the students were male , which was 57% in secondary classes and 58% in Higher secondary Classes.

Data also shows that, most of students belonged to Hindu religion, which was 92% in secondary classes and 81% in higher secondary classes.

Data again reveals that, most of the students lived in rural area, which was 74% and 81% in secondary and higher secondary classes respectively.

Data presented in above table indicates that, 55% and 50% students of secondary and higher secondary classes respectively had one sibling and only 1% and 5% students of secondary and higher secondary classes respectively had three siblings.

Data presented in above table reveals that, 56% students of secondary and 57% higher secondary classes had their family per capita per month income of Rs 953 – 3172.

Table 1: Frequency and percentage distribution of demographic characteristics of adolescent students according age, sex, religion, place of living, number of sibling and per capita income.

Sl No	Variables	Secondary students n=100		Higher secondary students n=100	
		F	%	F	%
1.	Age in years				
	• 13-14	41	41	0	0
	• 15-16	**56**	**56**	41	41
	• 17-18	3	3	**59**	**59**
2.	Sex				
	• Male	**57**	**57**	**58**	**58**
	• Female	43	43	42	42
3.	Religion				
	• Hindu	**92**	**92**	**81**	**81**
	• Muslim	8	8	19	19
4.	Place of living				
	• Urban	26	26	19	19
	• Rural	**74**	**74**	**81**	**81**
5.	Number of sibling				
	• One	**55**	**55**	**50**	**50**
	• Two	29	29	31	31
	• Three	1	1	5	5
	• None	15	15	14	14
6.	Per capita income				
	• ≤ Rs. 951	7	7	13	13

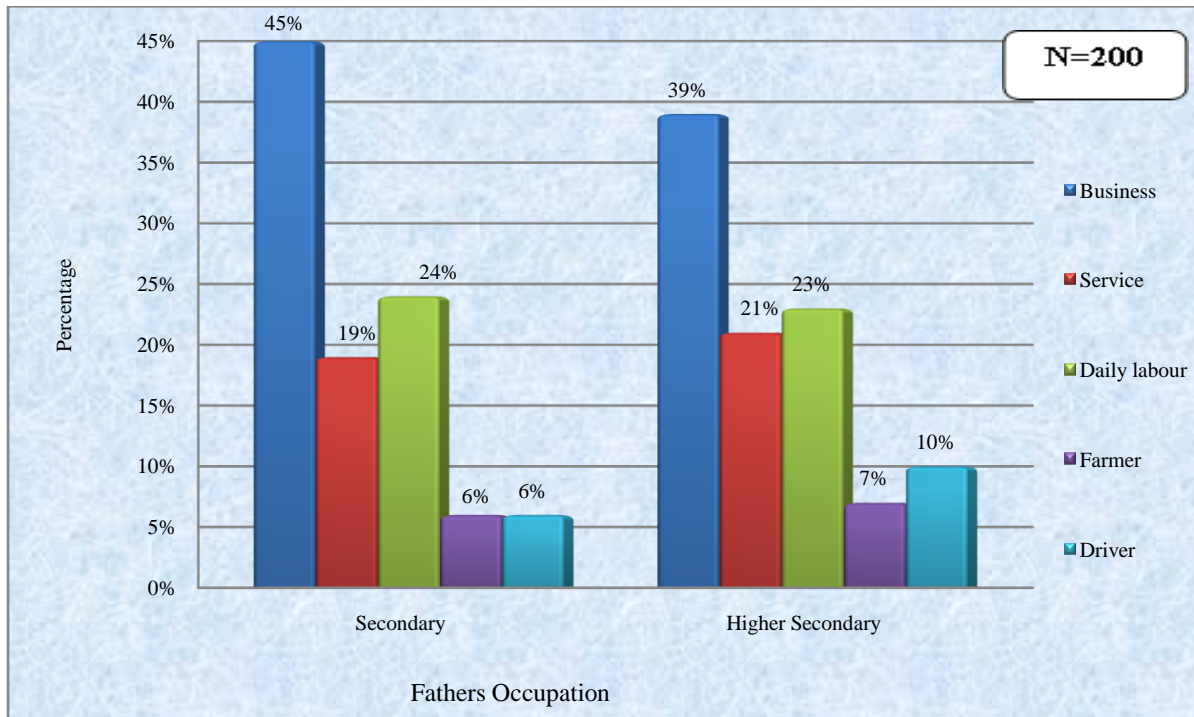|					
•	952 - 1903	**56**	**56**	**57**	**57**
•	1903 - 3172	26	26	22	22
•	≥3173	11	11	8	8
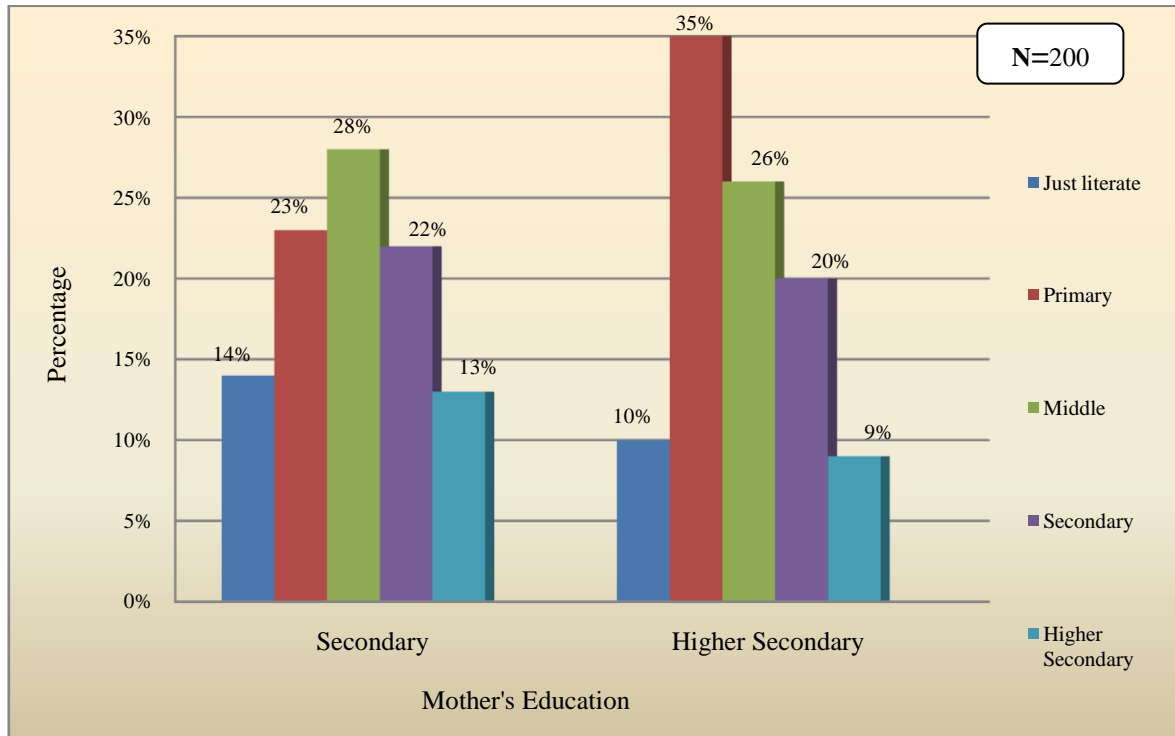
Figure 2 :Percentage distribution of participants according to their mother's education.

Data depicted in figure 2 reveals that, 28% student's mother of secondary classes were educated up to secondary level and 35% student's mothers of higher secondary classes were educated up to primary level.
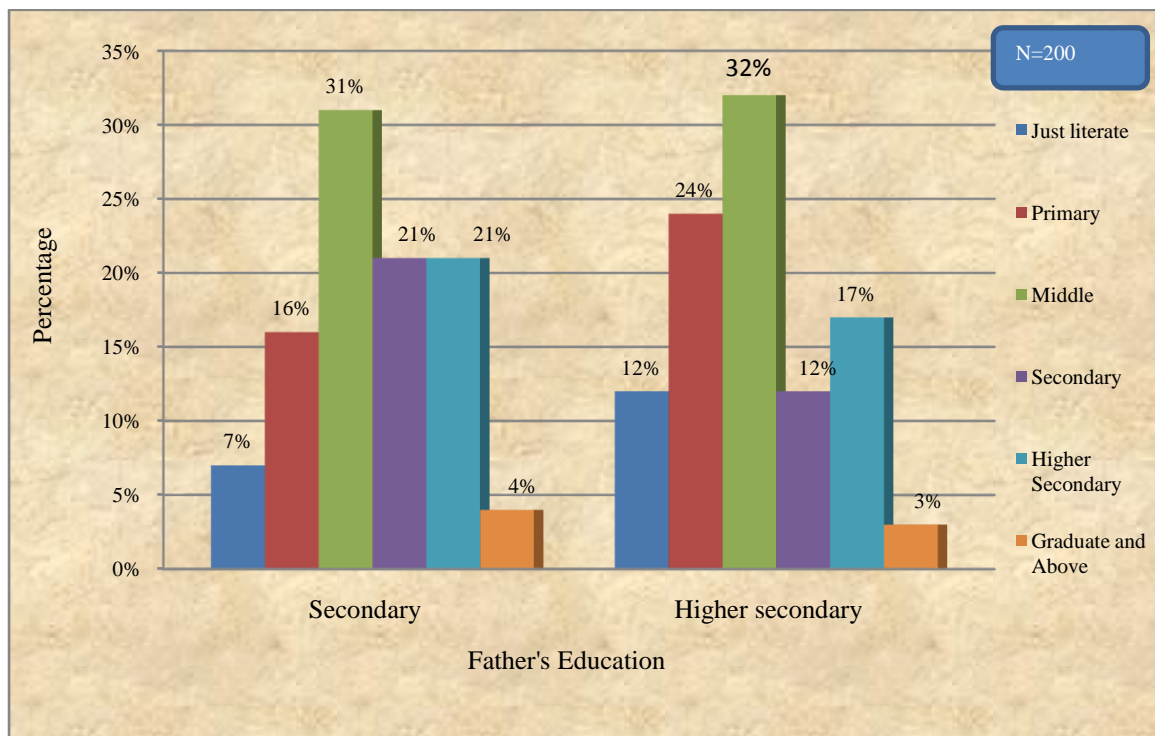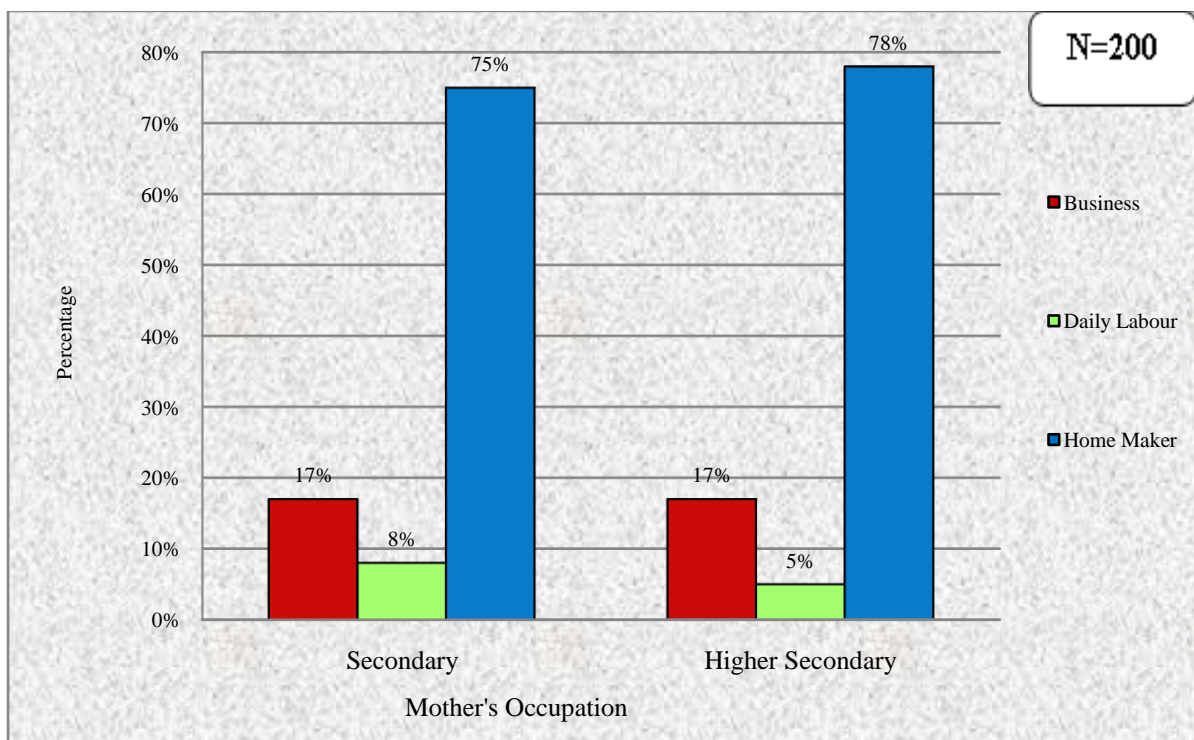

Figure 3 : Percentage distribution of participants according to their father's education.

Data depicted in figure 3 reveals that, 31% and 32% student's fathers of secondary and higher secondary classes respectively were educated up to middle school level.
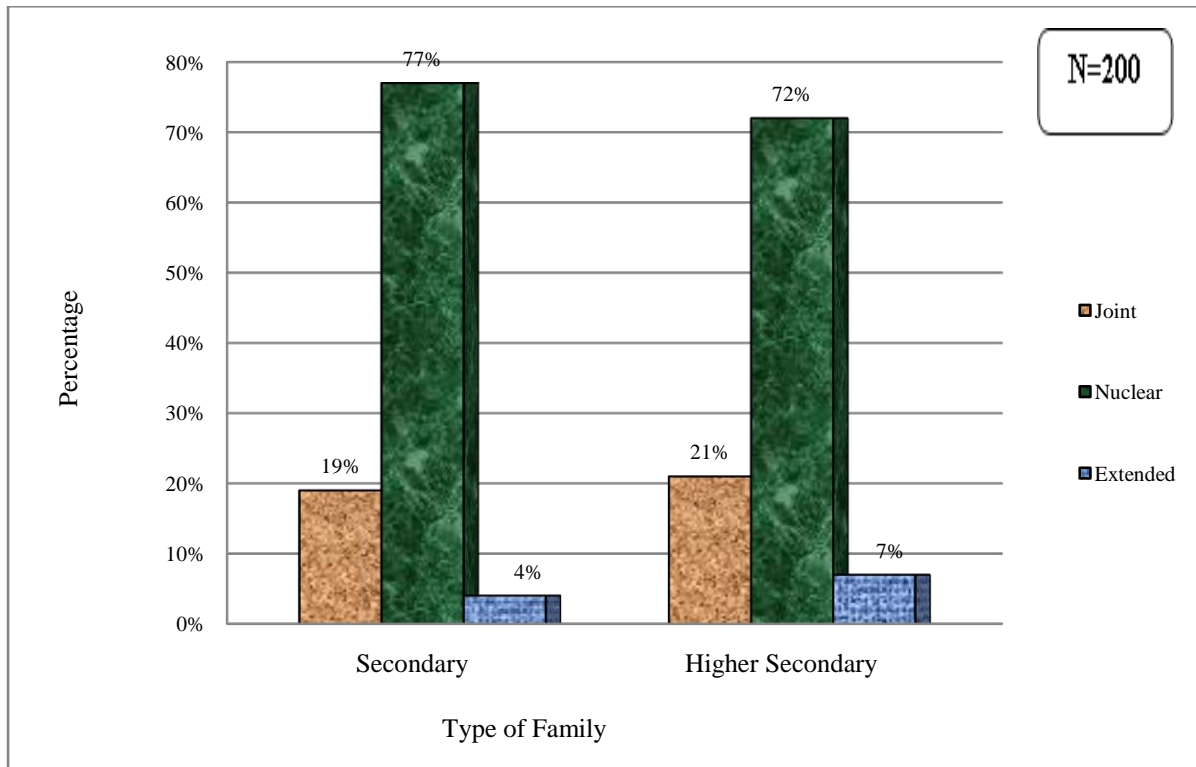

Figure 4 : Percentage distribution of participants according to their father's occupation.

Data depicted in figure 4 indicates that, 45% and 39% student's father of Secondary and higher secondary classes were business man.
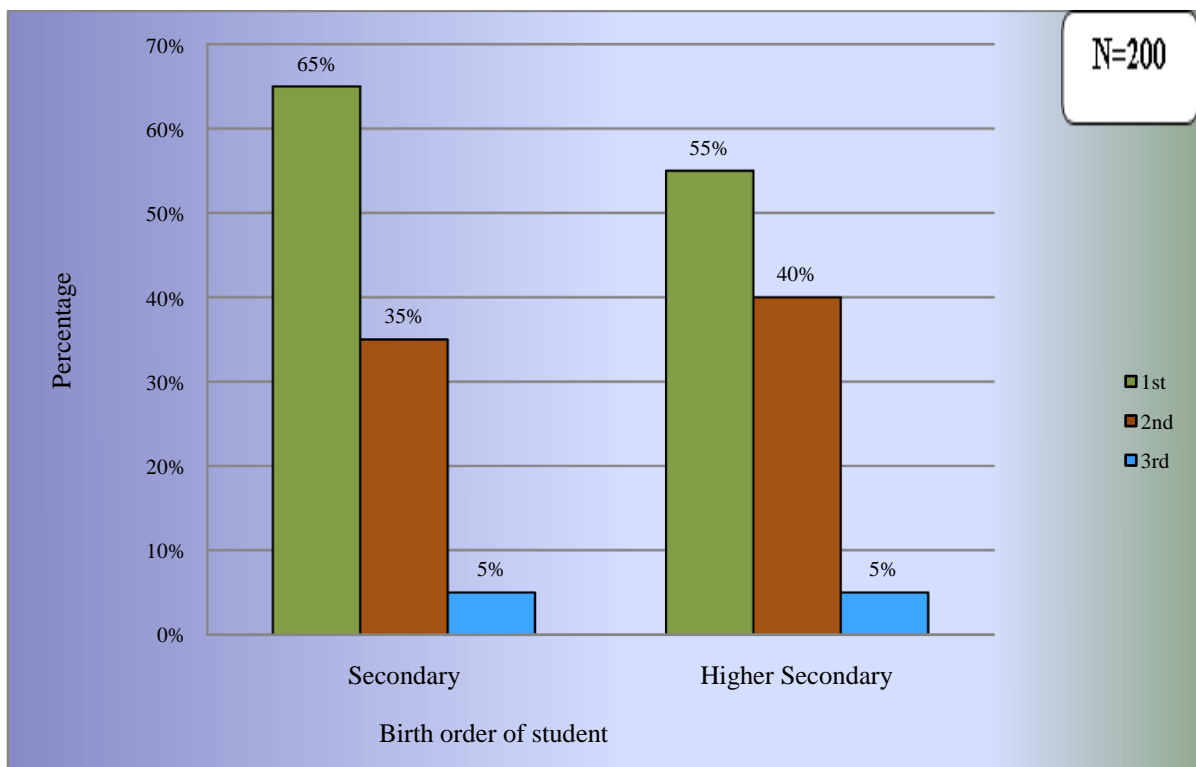

Figure 5 : Percentage distribution of participants according to their mother's occupation.

Data depicted in figure 5 indicates that, most of the student's mothers were home maker which was 75% and 78% of secondary and higher secondary student's respectively.
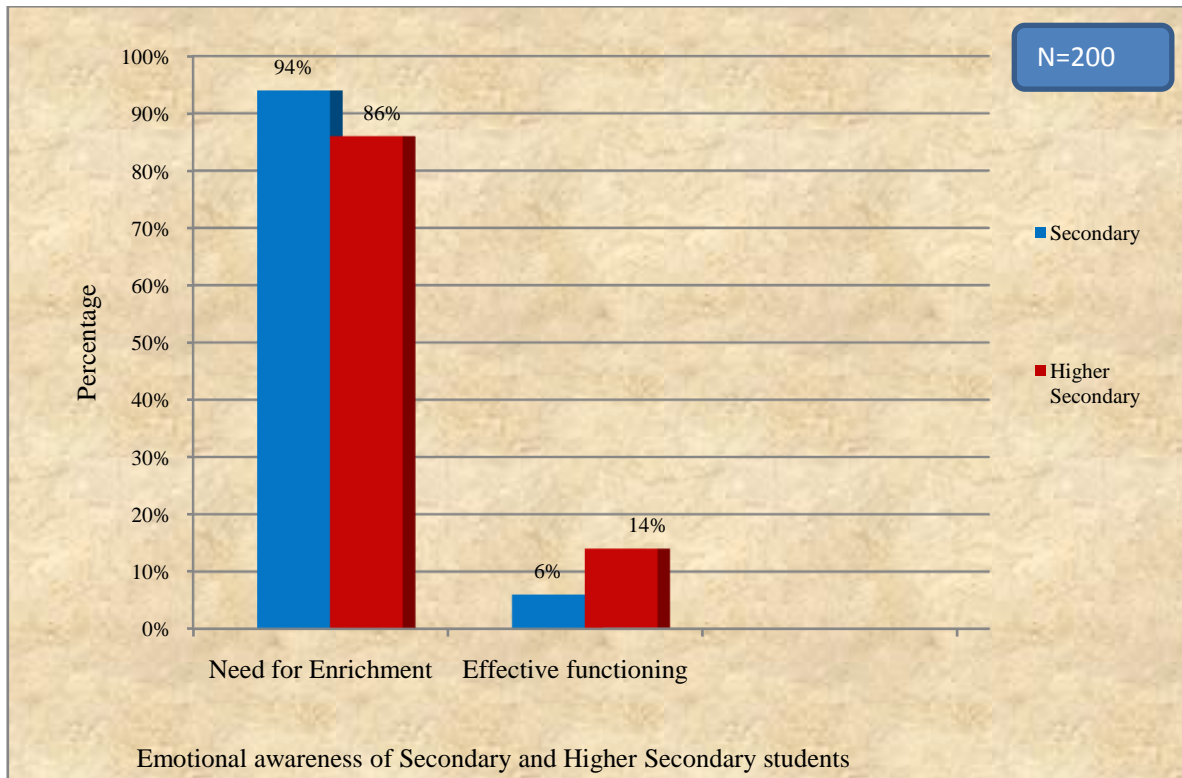
Figure 6 : Percentage distribution of participants according to their type of family.

Data depicted in figure 6 indicates that, 77% and 72% students of secondary and higher secondary classes respectively were from nuclear family.
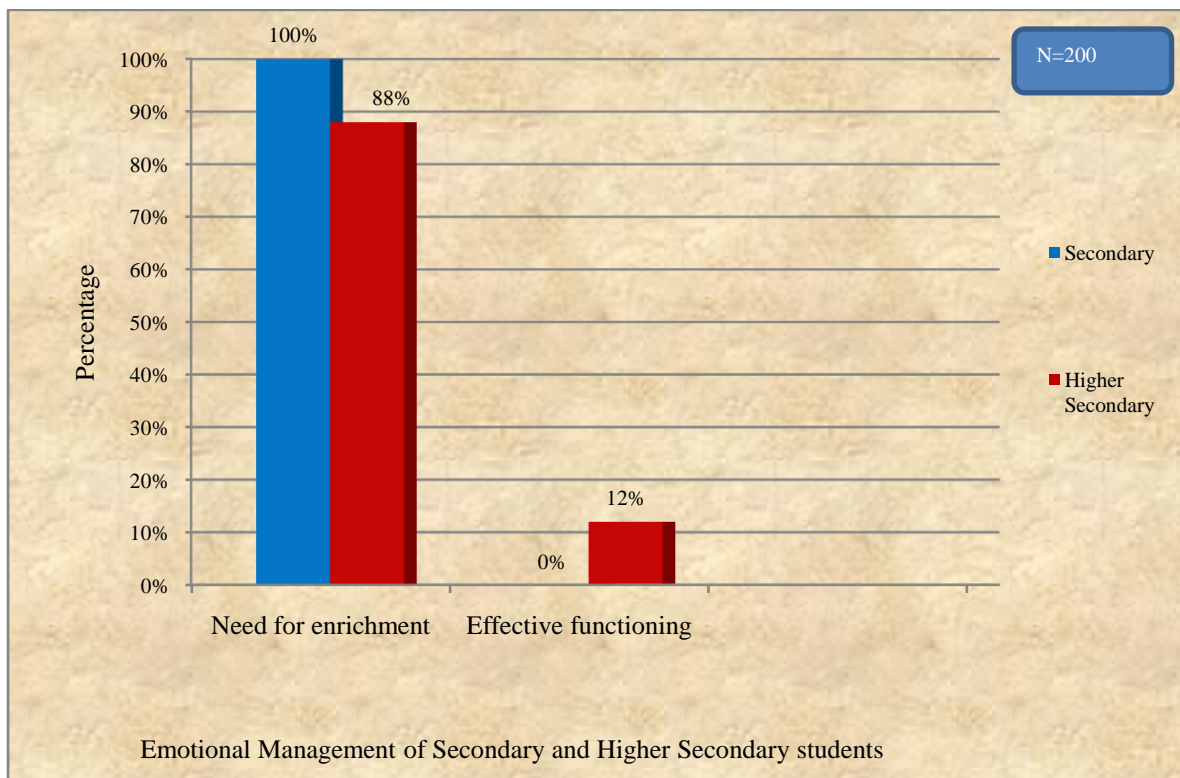

Figure 7 : Percentage distribution of participants according to their birth order.

Data presented in figure 7 shows that, 65% students of secondary classes and 55% students of higher secondary classes were the first child of their parent.
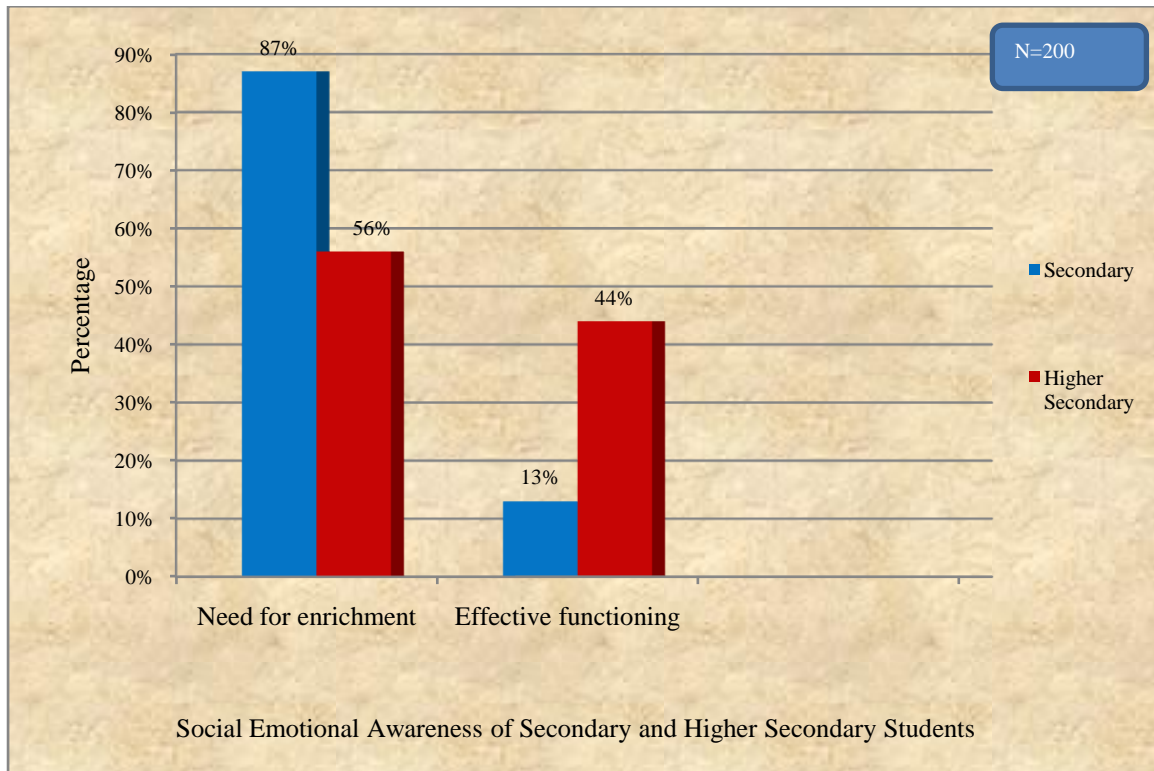
Figure 8: Percentage distribution of participants according to Emotional Awareness

Data presented in figure 8 reveals that, 94% and 86% students of secondary and higher secondary classes respectively need for enrichment in the domain of emotional awareness
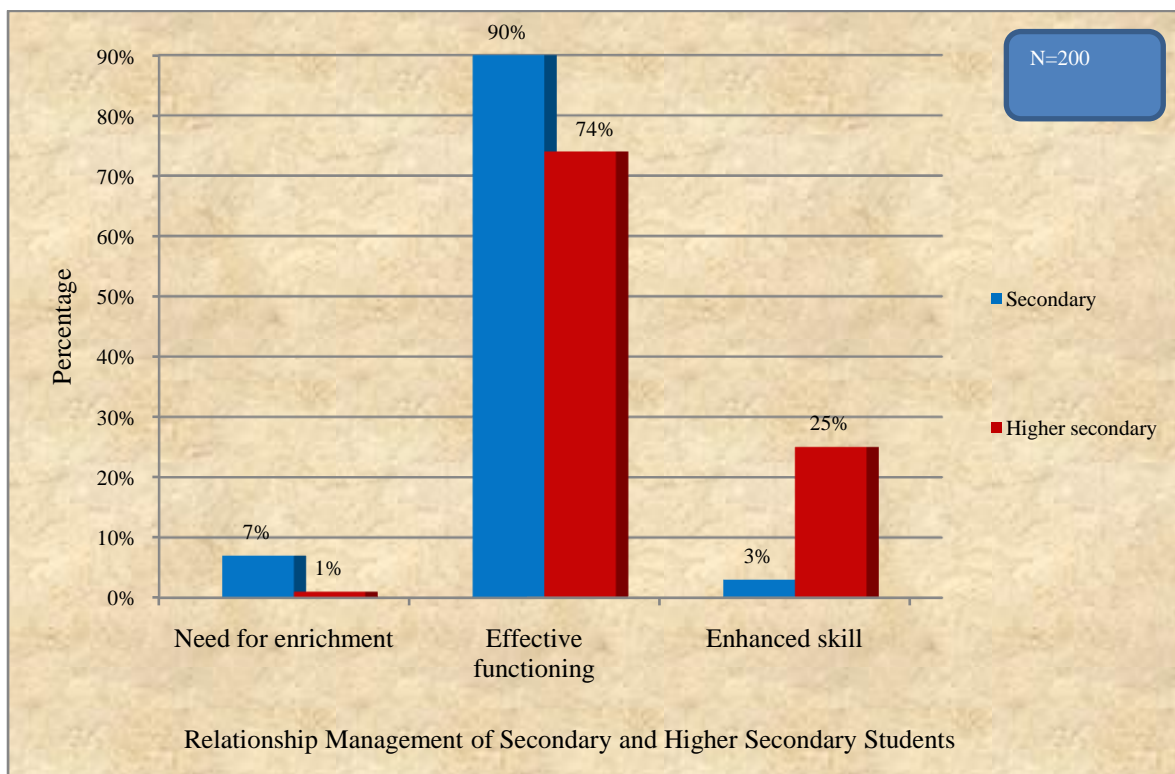

Figure 9 : Percentage distribution of participants according to Emotional Management.

Data depicted in figure 9 reveals that, in the domain of Emotional Management 100% and 88% students of secondary and higher secondary classes respectively had need for enrichment.

Figure 10 : Percentage distribution of participants according to Social Emotional Awareness
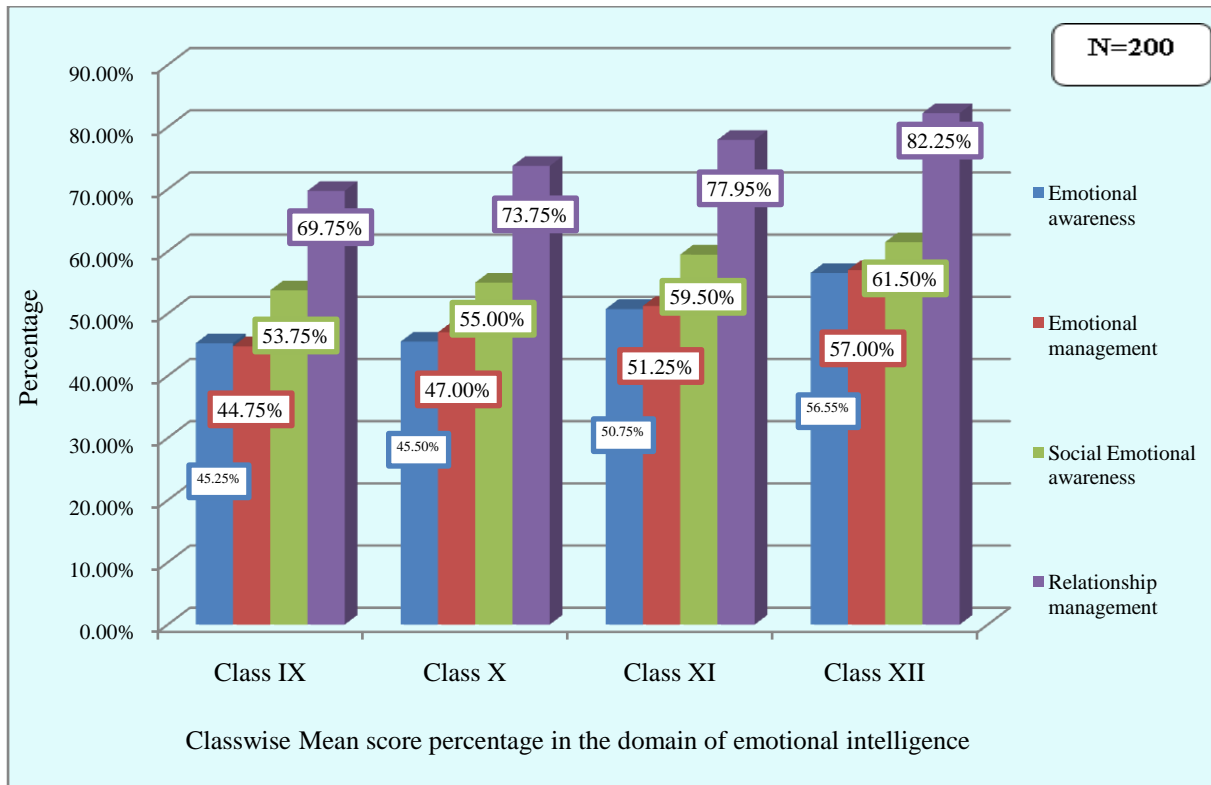
Data presented in figure 10 reveals that, 87% and 56% students of secondary and higher secondary classes respectively had need for enrichment in social emotional.

Figure 11: Percentage distribution of participants according to Relationship Management

Data presented in figure 11 reveals that, 90% students of secondary classes and 74% students of higher secondary classes were effective functioning in relationship management.

Figure 12: Distribution of participants according to class wise mean score in the domains of emotional intelligence

Data presented in figure 12 reveals that, mean score percentage of class IX, X, XI and XII were maximum in the area of relationship management which were 69.75%, 73.75%, 77.95% and 82.25% respectively , where as minimum mean score percentage were in the area of emotional awareness which were 45.25%, 45.50%, 50.75% and 56.55% respectively.
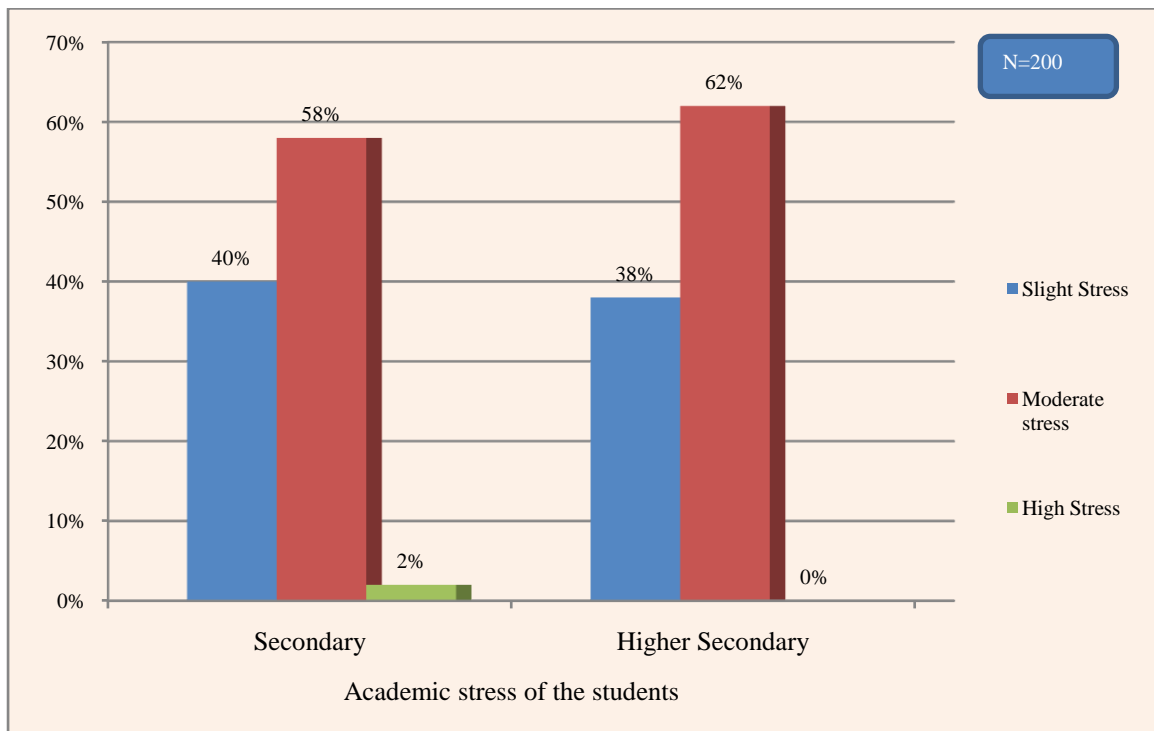
Figure 13: Percentage distribution of participants according to academic stress

Data depicted in figure 13 reveals that, 58% students of secondary classes and 62% students of higher secondary classes had moderate stress.
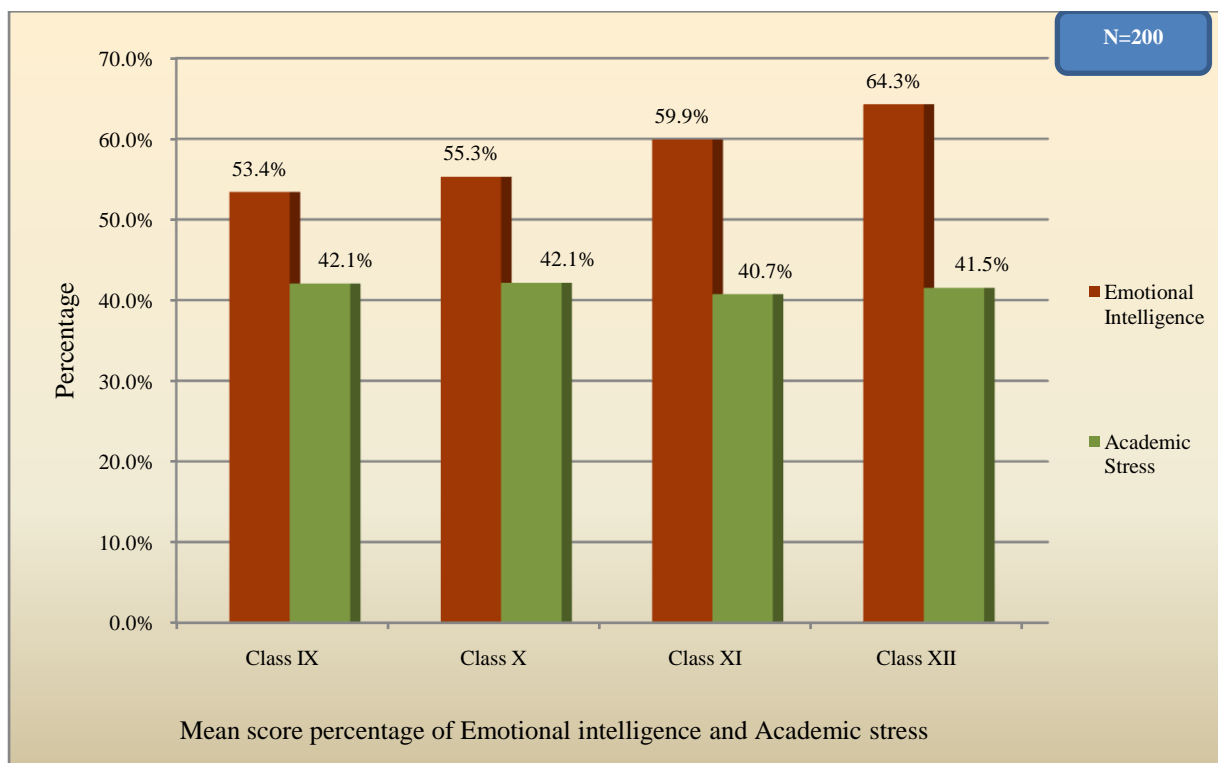
Figure 14: Mean score percentage of emotional intelligence and academic stress of the participants

Data presented in figure 14 shows that, maximum mean score percentage of emotional intelligence gained by the students of class XII which was 64.3% and minimum score gained by the students of class IX which was 53.4%. Data also indicates that, maximum mean score percentage of academic stress gained by the students of class IX and X which was 42.1% and minimum gained by the students of class XI which was 40.7%

In table 2 it indicates that there is negative relationship between emotional intelligence and academic stress among adolescent students of selected school which is found to be statistically significant evident from 't' value (7.08) which is greater than table value at 0.001 level of significance.So there is negative relationship between emotional intelligence and academic stress at 0.001 level of significance.

Table 2. Mean , standard deviation, 'r' value and 't' value of emotional intelligence with academic stress of adolescent students .

Variables	Mean	SD	R	't'
Emotional Intelligence	*93.2*	*9.32*	*-0.45*	*7.08*****
Academic Stress	*66.6*	*6.45*		

***T_{198} = 3.29 , p< 0.001

The data presented in table 3 shows that ,there was association between age, class, sex and mother's education level of the participants and emotional intelligence which was statistically significant at 0.001 and 0.05 level of significance as obtained values were higher from the table value.

Table – 3:Chi-Square value shows association between emotional intelligence and selected demographic variables

Sl No.	Variables	Chi-Square	df	α -level	Table value
1.	Age	30.76***	2	0.001	13.82
2.	Sex	8.77*	1	0.05	3.84
3.	Class	38.01***	3	0.001	16.27

Sl No.	Variables	Chi-Square	df	α -level	Table value
4.	Place of living	1.88	1	0.05	3.84
5.	Mother's education	11.36*	4	0.05	9.49
6.	Father's education	5.53	5	0.05	11.07
7.	Mother's occupation	1.96	2	0.05	5.99
8.	Father's occupation	3.21	4	0.05	9.49
9.	Type of family	0.17	2	0.05	5.99
10.	Birth order of the student	0.47	2	0.05	5.99
11.	No. of sibling	2.98	3	0.05	7.82

The data presented in table 4 shows that there is association between sex and place of living with academic stress which is statistically significant at 0.05 level of significance as obtained value was greater than table value

Table – 4: Chi-Square value shows association between academic stress and selected demographic variables

Sl No.	Variables	Chi-Square	df	α -level	Table value
1.	Age	0.154	2	0.05	5.99
2.	Sex	4.04*	1	0.05	3.84
3.	Class	2.04	3	0.05	7.82
4.	Place of living	5.17*	1	0.05	3.84
5.	Mother's education	2.73	4	0.05	9.49
6.	Father's education	10.41	5	0.05	11.07
7.	Mother's occupation	1.61	2	0.05	5.99
8.	Father's occupation	1.79	4	0.05	9.49
9.	Type of family	4.39	2	0.05	5.99
10.	Birth order of the student	0.37	2	0.05	5.99
11.	No. of sibling	0.59	3	0.05	7.82

IV. Discussion

Present study finding revealed that, 62% students of higher secondary classes had moderate stress and 40% students of Secondary classes had slight stress. 2% students of secondary classes have high stress.

A study conducted by ManasaGodati et al revealed that ,58% adolescent boys had mild stress , 42% had moderate stress where as 60% adolescent girls had mild stress , 40% had moderate stress. None of them had severe stress.[11]

In the present study, a significant relationship was found between emotional intelligence and academic stress (r = -0.45) which denotes the negative relationship between the variables.

This study was supported by a study conducted by Rizwan H Bhat indicated that there was a significant relationship among emotional intelligence and academic stress of students. Study further revealed inverse relationship between emotional intelligence and academic stress (r = -0.163) .[4]

Another study conducted by S.Chamundeswari by using simple random sampling technique, revealed a positive significant correlation between emotional intelligence and academic achievement among the students (r = 0.25** , p<0.01) .[9]

In the present study, mean score percentage of emotional intelligence of the students of Class XII was 64.3% where as it was 53.4% in the students of Class IX and mean score percentage of academic stress was 42.1% among the students of Class IX and X both where as it was 40.7% in the students of Class XI.

A study conducted by Anupama Katoch indicated that Government secondary school (Mean EI score 65.1) and private secondary school (Mean EI score 67.92) students differ significantly on emotional intelligence ('t' value 2.76 , significant at 0.01 level of significance)[7]

V. Conclusion

On the basis of the findings from the data analyzed the following conclusion can be drawn adolescent students of higher classes have more emotional intelligence than that of lower classes. Academic stress is comparatively higher in the students of higher classes than that of lower classes. Significant negative relationship was found between emotional intelligence and academic stress among adolescent students.. It denotes that the students with high emotional intelligence experience less academic stress. Adolescent's age , sex , class and mother's education have impact on emotional intelligence on their emotional intelligence ,where as sex and place of living has impact on academic stress of the participants.

The findings of this study have implication in community health nursing.

Findings are effective in identifying students with low emotional intelligence and developing awareness programme on how to improve emotional intelligence of the students, as according to present study students of Class IX, X, XI have need for enrichment in emotional awareness, emotional management and social emotional awareness. Counselling should be conducted for the students with academic stress which is observed in the students of all the classes. Students with high academic stress should be prioritized for counselling. Awareness programme and counselling should be given to the teachers, family members , parents by active involvement of School Health Nurse, ANMs, Lady Counsellor, Block Primary Health Nurse in community settings.

Source of funding: self
Conflict of interest: none

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