Relationship between Altruism and Emotional Intelligence among Adolescent Children of Working and Non-working Mothers

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ABSTRACT

The purpose of our present study is to explore the relationship between Altruism and Emotional Intelligence among higher secondary students belonging to the children of working and non-working mothers and to examine the ability of emotional intelligence to predict altruism through this relationship. Descriptive method incorporated with survey technique follows to analyze the 300 sample of higher secondary students (age 17-18 years). Altruism Scale, adapted by the investigators and Bengali version (r=.79, p<.01) of the Schutte Self-Report Emotional Intelligence Test (SSEIT) are used to assess the Altruism and Emotional Intelligence of the students respectively. The findings of this study indicate that the adolescent girl children of non-working mothers are more altruistic than the adolescent boy children of non-working mothers. But there exists no such significant difference between them in respect of emotional intelligence. In the case of children of working mothers similar gender difference appears for altruism and no difference appears for emotional intelligence. Adolescent girl children of working and non-working mothers together are more altruistic but not more emotionally intelligent in comparison to adolescent boy children. Again, working mothers' adolescent girl children are less altruistic and possess less emotional intelligence in comparison of girl children of non-working mothers. One notable point is that adolescent children (boys and girls together) of working mothers are less altruistic as well as less emotionally intelligent than the adolescent children of non-working mothers. Further, the study divulges the fact that there exists a significant positive association between altruism and emotional intelligence of adolescent children. The group with low level of emotional intelligence shows lower altruism than the group with high level of emotional intelligence. The worked out regression equation reveals that Emotional Intelligence can function as the predictor of Altruism.

Keywords: Altruism, emotional intelligence, working mothers, non-working mothers, adolescent children, higher education

Emotional intelligence is the capacity to identify and regulate one's own emotion as well as the emotion of others."Emotional intelligence is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (Mayer & Salovey, 1997). Thus, in emotional intelligence three skills are inherent which are the awareness of own and others' emotions, applying own emotion in practical field and regulating own emotion as well as others' emotion.

On the other hand, altruism refers the selfless concern for welfare of other people by doing something simply out of a desire to help without any return. "Altruism is behavior motivated by concern for others or by internalized values, goals, and self-rewards rather than by the expectation of concrete or social rewards, or the desire to avoid punishment or sanctions," Eisenberg *et al.* (1999). Therefore, to provide the selfless help to the persons who are in difficulties at first an altruistic person has to understand their problems with their empathetic feelings. Thus, empathy appears one of

the components of altruism. Again, empathy is also a component of emotional intelligence (Goleman, 1999). Therefore, it is natural that more the empathy of a person the more is his/her altruism as well as emotional intelligence. So it is assumed that there would have a natural relationship between altruism and emotional intelligence.

Working women can manage a little time for their wards and so the transmittance of the values, ethics, social liabilities, emotions etc., to their wards from them are also little in magnitude as well as in strength. Comparatively, the non-working educated women have more time to spare for their wards where the values, ethics, social liabilities, emotion are more opened to be cultured which can bring forth the altruism and emotional intelligence in a great manner. Therefore, it is assumed that there lie some differences in altruism as well as in emotional intelligence between the children of working and those of non-working mothers.

In the above logical backdrop, the present study is undertaken preceding some review of literatures in this field.

REVIEW OF LITERATURE

A study was done by Charbonneau D *et al.* in 2002[8] to explore the relationship between emotional intelligence and pro-social behaviors in adolescents. 134 adolescents involved in a 6-week training camp organized by the military were taken for the investigation. Self rating on emotional intelligence and peer rating on pro-social behavior were followed for the purpose. The result showed that ratings of emotional intelligence had significantly correlated with Altruism and Civic Virtue –the two of five factors of organizational citizenship behavior. It was also observed that there was no significant gender difference in Emotional Intelligence, Altruism, Conscientiousness and Civic Virtue. `

In their study on the gender –role classification and pro-social and antisocial behavior for 505 Chinese adolescents in grades 7 to 12 Hing Keung (2005) [8] showed that significant gender difference in antisocial behavior but not in pro-social behavior existed. There was positive association between delinquent behavior and masculinity but in the case of pro-social behavior positive association was found with both the gender

Rashmi, Sharma and Sushil (2010)[11] conducted a study on school going children to explore the altruism among the children of joint and nuclear families. They found that children of nuclear family had significantly more altruistic behavioral traits in comparison to children of joint family. Their study also showed that boys' behavioral traits were less significant than those of girls.

Salarzehi *et al.* (2011)[1] examined the relationship between Emotional Intelligence and Organizational Citizenship Behavior on a sample of 122 staffs and employees of Medical Science University in Iran through the process of multi-factors regression analysis. Their result indicated that conscientiousness, sportsmanship, civic virtue, courtesy, and altruism; the variables of Organizational Citizenship Behavior were strongly related to Emotional Intelligence. The authors also found that Emotional Intelligence can be used as the predictors of conscientiousness and altruistic behaviors of the personnel.

Anna Drebera *et al.* (2012)[3] made an investigation on gender difference in performance for altruism, risk and competition in math and word search among adolescents. They showed that boys were less altruistic and more risk taking than girls.

In their study on altruism, empathy and spirituality, Thomas Huber *et al.* (2012)[5] found that altruism and empathy was related to each other and relationship between altruism and empathy as well as altruism and spirituality was complex and multi-directional. There was a strong association between altruism and spiritual experiences succeeded by spiritual cognitions. Non-religious spiritual cognitions and spiritual experiences were the most potent predictors of both empathy and altruism respectively.

Hyun Jung Lee (2013)[7] made a study on the relationship between emotional intelligence and altruism among South Korean central government officials. The study revealed that there was a significant and positive association between the factors of emotional intelligence and altruistic-distant behavior. Altruistic-local behavior was associated with factors of awareness of others' emotions as well as management of one's own emotions. Individuals with high emotional intelligence performed both altruistic-local behavior and altruistic-distant behavior in the workplace, regardless of their personal connections.

Pokorski *et al.* (2013)[10] in their study "Altruistic Aptitude: Age Dependent Influence of Temperament and Emotional Intelligence" examined the distinct dimensions of temperament and emotional intelligence and their associations with the level of pro-altruistic aptitude in two distant age-groups, young (20-29 years) and senior (60-79 years) persons. The result indicated that there was a strong relation between the emotional intelligence and the altruistic behavior of both young and senior subjects though there was a general decrease in the characteristics of emotional intelligence of senior group. The author proved that high emotional intelligence can be used as a good predictor of altruistic aptitude of a person.

Another investigation was done by Muzamil Jan *et al.* (2013)[6] to assess the emotional intelligence among girls studying in professional colleges in the Kashmir region. The results indicated that majority of girls had high self-awareness with medium level of empathy. It was also observed that girls had high self-motivation with their medium level of emotional stability. Majority of girls had high level of self development but their value orientation was found to be medium level. The author also showed that commitment and altruistic behavior among girls was at medium level but self esteem among girls was observed at high level.

Mandal M.B. and Mehera, C. (2016)[9] investigated on relationship between altruism and interest in literature of the students at higher secondary level. They obtained that the girl students were more altruistic and more interested in literature than boy students. But, altruism and interest in literature of urban students were higher than those of rural students. They also obtained the positive co-relation between altruism and interest in literature and on the basis of this co-relation they worked out a regression equation which indicated that interest in literature could be used as a predictor of altruism.

OBJECTIVES

1. To assess altruism of the students with the help of an Altruism Scale adapted by the investigators.

2. To assess the emotional intelligence of the students with the help of The Schutte Self-Report Emotional Intelligence Test (SSEIT) (Bengali version, translated by the investigators)

3. To find out sex wise and strata wise differences, if any, both in altruism and in emotional intelligence of adolescent children of working, and non-working mothers.

4. To determine the relationship between altruism and emotional intelligence of the adolescent children of working as well as of non-working mothers.

5. To compare altruism of the adolescent children of working, and non-working mothers with high and low level of their (children) emotional intelligences.

6. To develop regression equation in order to obtain an estimation of altruism of the adolescent children of working and of non-working mothers in terms of their (children) outcomes in emotional intelligences.

HYPOTHESES IN NULL FORM

To achieve the aforesaid objectives the following null hypotheses are formulated and tested:

- $^0H_1$: There exists no significant difference between the adolescent girl children and adolescent boy children both of working mothers in respect of their (children) altruism.

- $^0H_2$: There exists no significant difference between adolescent girl children and boy children both of non-working mothers in respect of their altruism.

- $^0H_3$: There exists no significant difference between adolescent girl children of working mothers and those of non-working mothers in respect of their (girl children) altruism.

- $^0H_4$: There exists no significant difference between adolescent boy children of working mothers and those of non-working mothers in respect of their (boy children) altruism.

- $^0H_5$: There exists no significant difference between adolescent children of working mothers and those of non-working mothers in respect of their (children) altruism.

- $^0H_6$: There exists no significant difference between the adolescent girl children and adolescent boy children both of working mothers as well as of non-working mothers in respect of their (children) altruism.

- $^0H_7$: There exists no significant difference between the adolescent girl children and adolescent boy children both of working mothers in respect of their (children) emotional intelligence.

- $^0H_8$: There exists no significant difference between adolescent girl children and boy children both of non-working mothers in respect of their emotional intelligence.

- $^0H_9$: There exists no significant difference between adolescent girl children of working mothers and those of non-working mothers in respect of their (girl children) emotional intelligence

- $^0H_{10}$: There exists no significant difference between adolescent boy children of working mothers and those of non-working mothers in respect of their (boy children) emotional intelligence.

- $^0H_{11}$: There exists no significant difference between adolescent children of working mother and those of non-working mother in respect of their emotional intelligence.

- $^0H_{12}$: There exists no significant difference between the adolescent girl children and adolescent boy children both of working mothers as well as of non-working mothers in respect of their (children) emotional intelligence.

- $^0H_{13}$: There exists no significant relationship between altruism and emotional intelligence of adolescent children of working as well as of non-working mothers.

- $^0H_{14}$: Adolescent children with high and low level of emotional intelligence do not differ from one another in respect of their altruism.

- $^0H_{15}$: Emotional intelligence cannot be used as a predictor of altruism of the adolescent children of working as well as of non-working mothers.

VARIABLES

The following are the variables of the said research:

Dependent Variable: a) Altruism of adolescent children

Independent Variables: (a) Emotional intelligence of the adolescent children (b) Strata (Working mother group and non-working mother group) (c) Gender (Male and Female) Here the variable

Emotional Intelligence acts as dependent variable also when strata wise and gender wise differences in it are to be looked for (Two Way ANONA).

METHODOLOGY

Research Method

Descriptive method incorporated with survey technique is followed for this investigation.

Sample

A sample of 300 adolescent children of class XII belonging to both working and non-working mother groups (education level—graduate/post graduate) in equal numbers (i.e. 150; 75 boys and 75 girls) was drawn randomly from urban boys' schools and urban girls' school (under Higher Secondary Council) of Burdwan district in West Bengal.

Research Tools

Altruism Scale (AS) and Bengali version of Schutte Self Report Emotional Intelligence Test (SSEIT) (r-.81, p<.01) are used to measure the altruism and the emotional intelligence of the adolescent children respectively. AS has been adapted by the present investigators in 2015 (r=.83, p<.01) from Roy and Ghosh who adapted with some modifications of the original scale of Eisenberg *et al*. The content validity of the adapted scale is also established by the present investigators. Each of five indicators of AS namely, Co-operation, Help, Sharing, Emotional Comfort and Restitution is represented by two situations and each has five alternative responses with scoring on a scale value ranging from 1 to 5.

SSEIT (r=.90, p<.01), developed by Dr. Nicola Schutte in 1998, is a test of measuring emotional intelligence having four dimensions namely, emotion perception, utilizing emotions, managing self- relevant emotions, and managing others' emotions. The SSEIT consists of 33 items using five point scale (1= strongly agree to 5= strongly disagree) for responses.

PROCEDURE

Multistage sampling is done where the first stage is the random selection of fifteen higher secondary urban boys' school as well as fifteen higher secondary urban girls' school from the list

of higher secondary boys' and girls' schools in Burdwan district respectively. In the second stage, at first, education level of mothers (working and non-working) of adolescent children of both boys' and girls' schools is identified to be graduate/post-graduate and then from each boys' school 5 boy children (age 17-18) of working mothers (education level-graduate/post-graduate) and 5 boy children (age 17-18) of non-working mother (education level-graduate/post-graduate) are randomly selected. Similarly, from each girls' school 5 girl children (age 18+) of working mothers (education level-graduate/post-graduate) as well as 5 girl children (age 18+) of non-working mothers (education level-graduate/post-graduate) are randomly selected.

The Altruism Scale and Emotional Intelligence Scale are administered on the adolescent children of working and non working mothers to get altruism scores as well as scores of emotional intelligence of the students.

Statistical analysis of various data are done in order to find out whether there exists any gender wise and strata wise differences in altruism as well as in emotional intelligence and to examine the relationship, if any, between altruism and emotional intelligence.

In order to test the null hypotheses $^{0}H_1$ to $^{0}H_{12}$ F-tests are adapted and then t-tests are performed where F-values are significant at .05 or lesser level. To test the null hypothesis $^{0}H_{13}$ coefficient of correlation (r) between altruism and emotional intelligence is calculated and is confirmed against the alternative hypothesis. For the testing of null hypothesis $^{0}H_{14}$, high and low scoring emotional intelligence groups are formed by taking Median ± Q as their respective cutting points. Children with scores greater than Median + Q fall in high group and children with scores lesser than Median – Q fall in low group. In order to find out the significance of differences between the mean scores in AS of the adolescent children of high- and low-scoring groups in SSEIT, the children belonging to each of the nine categories in SSEIT namely, adolescent Girls belonging to Working Mother group (GWM), adolescent Boys belonging to Working Mother group (BWM), adolescent Girls belonging to Non-Working Mother group (GNWM), adolescent Boys belonging to Non-Working Mother group (BNWM), adolescent Children belonging to Working Mother

group (CWM), adolescent Children belonging to Non-Working Mother group (CNWM), adolescent Girl Children (GC), adolescent Boy Children (BC) and the Entire Sample (ES) are identified and their corresponding scores in AS are tabulated and subjected to t tests.

Null hypothesis $^{0}H_{15}$ is tested applying regression equation formula on forty randomly selected samples.

ANALYSIS OF DATA

The Mean (M), Standard Deviation (S.D.), Skewness (Sk), Kurtosis (Ku) and Standard Error of Mean (S.E.$_M$) of the scores in AS as well as in SSETT are found out with regard to nine categories of the testees, namely, Adolescent Girls belonging to Working Mother group (GWM), adolescent Boys belonging to Working Mother group (BWM), adolescent Girls belonging to Non-Working Mother group (GNWM), adolescent Boys belonging to Non-Working Mother group (BNWM), adolescent Children belonging to Working Mother group (CWM), adolescent Children belonging to Non-Working Mother group (CNWM), adolescent Girl Children (GC), adolescent Boy Children (BC) and the Entire Sample (ES) comprising of both sexes and strata. The various statistical measures are given in Table 1 and Table 2 for AS and SSEIT respectively.

Table 1: Showing the Mean (M), SD, Sk, Ku And SE$_M$ for Each of Nine Categories (GWM, BWM, GNWM, BNWM, CWM, CNWM, GC, BC and ES) of the Students in Altruism-Scale

Groups	M	SD	Sk	Ku	SE$_M$
GWM	35.16	9.49	.246	1.263	1.096
BWM	32.11	5.35	.166	.715	.618
GNWM	38.93	9.38	-.174	1.240	1.084
BNWM	34.25	6.94	-.007	.889	.801
CWM	33.63	7.83	.536	.512	.639
CNWM	36.59	8.55	.111	.984	.698
GC	37.05	9.59	.030	1.313	.783
BC	33.18	6.30	.174	.711	.512
ES	35.11	8.32	.322	.847	.480

Table 1 indicates that the overall, sex wise and strata wise (except GNWM and BNWM groups) distributions of scores in altruism scale are positively skewed. Further, from the kurtosis values it is observed that the distributions are platykurtic.

Table 2: Showing the Mean (M), SD, Sk, Ku, and SE_M for Each of Nine Categories (GWM, BWM, GNWM, BNWM, CWM, CNWM, GC, BC and ES) of the Students in SSEIT

Groups	M	SD	Sk	Ku	SE_M
GWM	125.17	10.25	-.504	.465	1.183
BWM	127.37	9.31	-.306	.379	1.075
GNWM	135.25	9.38	-.557	.204	1.083
BNWM	128.52	8.62	-.556	.697	.995
CWM	126.27	9.82	-.441	.351	.802
CNWM	131.89	9.59	-.374	.426	.783
GC	130.21	11.02	-.464	.247	.900
BC	127.35	8.96	-.425	.537	.732
ES	129.08	10.09	-.378	.301	.583

Table 2 indicates that the overall, sex wise and strata wise distributions of scores in Emotional Intelligence scale are negatively skewed. Further, from the kurtosis values it is observed that the distributions are platykurtic (except for GNWM and GC groups).

Table 3: df, Sums of Square (SS), Mean Squares (MS) and F-Values for Scores in AS

Source of Variance	df	SS	MS	F
Due to Gender	1	1121.333	1121.333	17.595*
Due to Strata	1	657.120	657.120	10.311*
Error	296	18864.080	63.730	

Significant at .01 level.

Since, the F-values are significant in respect of Sexes and Strata, t-tests are warranted.

Table 4: Showing the t-Values Along with Other Relevant Measures for the Scores in AS

Groups	N	Mean	SD	t-value
GWM	75	35.16	9.49	**2.427
BWM	75	32.11	5.35	
GNWM	75	38.93	9.38	*3.473
BNWM	75	34.25	6.94	
GWM	75	35.16	9.49	**2.449
GNWM	75	38.93	9.38	
BWM	75	32.11	5.35	**2.121
BNWM	75	34.25	6.94	
CWM	150	33.63	7.83	*3.126
CNWM	150	36.59	8.55	
GC	150	37.05	9.59	*4.132
BC	150	33.18	6.70	

*Significant at .01 level, ** Significant at .05 level.*

The Table 4 shows the t-values 2.427, 3.473, 2.449, 2.121, 3.126, 4.132 between the mean scores of GWM and BWM; GNWM and BNWM; GWM and GNWM; BWM and BNWM; CWM and CNWM; GC and BC respectively. t-values 2.427, 2.449 and 2.121 are significant at .05 level. All other t-values are significant at .01 level. Hence, the null hypotheses $^0H_1$ to $^0H_6$ are rejected. Therefore, there is significant difference between the mean scores of adolescent Girls and adolescent Boys both belonging to Working Mother group; between adolescent Girls and adolescent Boys both belonging to Non-Working Mother group; between adolescent Girls belonging to Working Mother group and adolescent Girls belonging to Non-Working Mother group; between adolescent Boys belonging to Working Mother group and those belonging to Non-Working Mother group; between adolescent Children belonging to Working Mother group and those belonging to Non-Working Mother group; between adolescent Girl Children and adolescent Boy Children belonging to Working Mother as well as Non-Working Mother group.

Table 5: df, Sums of Square (SS), Mean Squares (MS) and F-Values for Scores in SSEIT

Source of Variance	df	SS	MS	F
Due to Gender	1	385.333	385.333	4.355
Due to Strata	1	2363.213	2363.213	26.706*
Error	296	26193.200	88.491	

Significant at .01 level.

Since, F-value is not significant is respect of gender, it can be stated that there is no gender wise difference in emotional intelligence. As, the F-value is significant in respect of Strata, t –tests are warranted to test the strata wise differences.

Table 6: Showing the t-values Along With Other Relevant Measures for the Scores in SSEIT

Groups	N	Mean	SD	t-value
GWM	75	125.17	10.25	*6.284
GNWM	75	135.25	9.38	
BWM	75	127.37	9.31	.783
BNWM	75	128.52	8.62	
CWM	150	126.27	9.82	*5.008
CNWM	150	131.89	9.59	

Significant at .01 level

The Table 6 shows the t-values 6.284, 0.783 and 5.008 between the mean scores of GWM and GNWM; BWM and BNWM; CWM and CNWM respectively. The t-values 6.284 and 5.008 are significant at 0.01 level. So, the null hypotheses $^0H_9$ and $^0H_{11}$ are rejected. Therefore, there is a significant difference between the mean scores in emotional intelligence of adolescent Girls belonging to Working Mother group and those of adolescent Girls belonging to Non-Working Mother group; between the mean scores in emotional intelligence of adolescent children belonging to Working Mother group and adolescent children belonging to Non-Working Mother group.

The t-value .783 is not significant at .05 level. Therefore, the null hypothesis $^0H_{10}$ is retained. That is, there exists no significant difference between the mean scores in emotional intelligence of adolescent Boys belonging to Working Mother group and those of adolescent Boys belonging to Non-Working Mother group.

Table 7: Value of Coefficient of Correlation (r) between Altruism and SSEIT

Entire Sample	N= 300	*r=.620	P=0.01

Significant at .01 level.

Table 7 shows r-value as significant at .01 level. Thus, the null hypothesis $^0H_{13}$ is rejected. This means that altruism is positively associated to emotional intelligence of the adolescent children. It implies that if one's emotional intelligence grows the value of his/her altruism will also grow.

The Table 8 depicts the t-values between the mean scores of altruism of the adolescent children, belonging to each of nine categories, of the high- and low -scoring groups in emotional intelligence. All the t values are significant at .01 levels**.** Thus, the Null Hypothesis $^0H_{14}$ is rejected. That means, there is a significant difference between the scores in Altruism Scale of High- and Low-Scoring children in emotional intelligence test for each of the nine groups. This strengthens the finding of positive correlation between altruism and Emotional Intelligence.

For prediction of altruism of working and non-working mothers' adolescent children from their scores of emotional intelligence regression equation is formed.

Table 8: Showing Mean AS Scores and Other Relevant Measures of High (H) and Low (L) Scoring Various SSEIT Groups

Strata & Sexes Measures	GWM		BWM		GNWM		BNWM		CWM		CNWM		GC		BC		ES	
	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L
M	41.00	26.57	35.44	30.00	47.40	27.71	39.32	28.18	39.94	30.67	42.00	25.35	45.69	28.92	37.59	29.16	43.03	29.18
SD	10.13	6.65	4.67	5.62	3.95	3.50	6.00	5.97	7.04	6.58	7.25	3.12	6.13	6.65	5.70	5.68	6.64	6.19
SE_D	2.91	1.78	1.10	1.29	.88	.85	1.37	1.45	1.76	.808	.84	.76	.95	1.11	.91	.94	.81	.71
t	5.085*		3.210*		16.08*		5.575*		4.788*		14.753*		11.514*		6.440*		12.876*	

Significant at .01 level.

The values of R along with some relevant measures are presented in Table 9.

Table 9: Showing the Value of R Along With Other Relevant Measures

R	.620
R^2	.385
Adjusted R^2	.383
SE	6.536
F	186.373

Table 10: Showing Regression Coefficient Along With Other Relevant Measures

	Coefficient	SE	t- statistics	P-value
Constant	-30.903	4.850	6.371	.000
Emotional Intelligence	.511	.037	13.652	.000

From Table 10 the regression equation is constructed as   A= -30.903+.511B

Where A stands for altruism score and B stands for emotional intelligence score. This formula is applied for prediction of altruism on a sample of forty adolescent children of working as well as of non-working mothers. The altruism values of that sample are also obtained using Altruism Scale. The values of mean, S.D and SE_D of obtained as well as of predicted values in altruism and their t-values are given in Table 11. (Predicted value is estimate value and not the correct value).

Table 11: Presentation of t-value of the Concerned Mean Scores of the Children In AS

Measures	Altruism	
	Obtained	Predicted
M	32.93	33.42
SD	6.40	6.30
SE	1.012	1.010
t	.728+	

**Insignificant.

Table 11 shows t-value as insignificant (>.05) which implies the difference between the concerned two means (obtained and predicted scores in altruism) to be very slight and statistically insignificant. Hence, emotional intelligence can function as a predictor

of altruism. Therefore, null hypothesis $^0H_{15}$ i.e. emotional intelligence cannot be used as a predictor of altruism of adolescent children is rejected.

DISCUSSION

Based on our research results, the following facts appear. From Table 4 it is inferred that girl children of both working mothers and non-working mothers are more altruistic than the boy children of working and non-working mothers respectively. So, it can be stated that the value of altruism of adolescent Girl Children is greater than that of adolescent Boy Children (rejection of null hypothesis ($^0H_6$). It is supported by the findings of Anna Drebera et al. (2012)[3] and Mandal M.B and C. Mehera (2016) [8]. Now, it can be argued that the cause behind the girls' higher altruism value compared to boys is their (girls') more empathetic feelings because the empathy level of girls is more than that of boys (Toussaint and Webb, 2005)[12] and human capacity for altruism is confined to the persons for whom we are empathetic (Batson and Oleson, 1991)[1].

Table 4 also infers that girl children and boy children of working mothers are more altruistic than the girl children and boy children of non-working mothers respectively and boys and girls together that is children of working mothers and those of non-working mothers differ significantly in respect of altruism and this difference goes in favor of children of non-working mothers. The reasons behind these are discussed bellow.

Mothers have a big role in upbringing their wards. The children acquire the values both personal and social basically from their mothers directly and indirectly. As the children are more attached with their mothers from their births they are more influenced by their mothers' behaviors, thoughts and education. Therefore, an educated non-working mother can develop her children's emotion, empathy, ethics and other mental instincts through some greater ways. On the other hand, a working mother has a little time to spare for her children. So, she cannot influence well on her children's mental and moral development. Hence, the children of non-working mothers are more open minded, empathetic and morally developed in comparison of working mothers' children implying thereby the former to be more altruistic.

Since F-value for gender is insignificant, from Table 5 it can be stated that the adolescent girls and boys of working mother group do not differ in respect of emotional intelligence. Similarly, in the case of non-working mother group also adolescent boys and girls do not differ in respect of emotional intelligence. Again, from insignificant F-value in Table 5 it can be inferred that boys and girls, irrespective of any group, are not emotionally intelligent. It is supported by the study of Charbonneau D. and Nicol A.A. (2002)[2].

Table 6 also shows that no significant difference in emotional intelligence exists between boy children of working mothers and those of non-working mothers. But, girl children of non-working mothers are more emotionally intelligent than those of working mothers. Again, Table 6 infers that there is difference in emotional intelligence between children of working mothers and those of non-working mothers. The arguments behind the above findings from Table 6 are stated bellow.

An important thing is that girls are more attached to their mothers and share many problems with them compared to boys. On the other hand the boys who get less attachment with their mothers get more openness from outsides compared to the girls who have less scope to expose themselves. As a result, the development of emotional intelligence and values takes place through different ways for boys and girls.

Now, if mothers are employed they cannot give sufficient time to their children especially to girl children and so, the working mothers' girl children's emotional intelligences cannot be developed well. Therefore, it is natural to have the significant difference between adolescent girl children of working mothers and those of non-working mothers in respect of emotional intelligence. But, as their emotional intelligence develops mostly at outsides the adolescent boy children of working and non-working mothers are not significantly different in respect of emotional intelligence. Further it can be derived from the above explanation that children (i.e. boys and girls together) of working mothers and those of non-working mothers significantly differ in respect of emotional intelligence.

Looking into the Table 7 it can be said that altruism of adolescent children is positively associated to their emotional intelligence. And Table 8 shows that adolescent children with low level of altruism have lower emotional intelligence than their counterparts having higher emotional intelligence. It strengthens the positive relationship between altruism and emotional intelligence.

It implies that if one's emotional intelligence grows his/her altruism will also grow. Therefore, to enhance the level of altruism or to upgrade the altruistic behaviors of adolescent children their emotional intelligence should be developed.

Finally, from Table 10 it is clear that emotional intelligence acts as a predictor of altruism which enables us to predict the value of altruism of a student only assessing his/her scores in emotional intelligence.

Further in Table 11, the t-value of the obtained and predicted mean scores of students in AS reflects the high degree of acceptability of the linear regression.

CONCLUSION

Our study seeks for the relationship between altruism and emotional intelligence among the adolescent wards of working and non-working mothers. Sample comprised of 300 adolescent students is taken from fifteen schools for boys as well as fifteen schools for girls. Altruism scale adapted by the present investigators and Bengali version (translated by the investigators) of Schutte Self-Report Emotional Intelligence Test (SSEIT) are used for the study. The main points revealed by the study are as follows.

- Adolescent girls are more altruistic than adolescent boys.

- No significant difference exists between adolescent boys and girls in respect of emotional intelligence.

- Adolescent children of working mothers differ significantly with the adolescent children of non-working mothers in respect of altruism as well as of emotional intelligence.

- There exists positive co-relation between altruism and emotional intelligence which implies that the more emotional intelligence a person has the more he/she will be altruistic.

- The former is strengthened by another finding that the group with low level of altruism shows

lower emotional intelligence than the group with high level of altruism.

◆ Emotional intelligence can function as a predictor of altruism.

From this investigation it is evident that mothers play a great role in developing altruism and emotional intelligence of their wards. Basically, the girl children suffer more if their mothers are not able to manage sufficient time to provide them and they become selfish and emotionally backward. Therefore, the working mothers should be aware of this and seek the alternative ways for their children's moral and emotional development.

As emotional intelligence is significantly related to altruism, adolescent children should be provided with the proper teaching through suitable curricula so as to increase their emotional intelligence and make them more altruistic in modern selfish competitive society.

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