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Adolescents home perception of their emotional intelligence and social maturity

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Abstract
The main objective of the study was to predict the perception of home environment of adolescents on the bases of their emotional intelligence and social maturity. The sample consisted of 210 school students (105 girls and 105 boys) of Kolkata city aged 13 through 15 years. The technique of stratified random sampling was used to select students belonging to the two gender groups with each gender group comprising 35 students each belonging to upper middle, middle middle and lower middle socio – economic status families respectively. For assessment of socio-economic status the Socio-Economic Status Scale (Meenakshi, 2004) was administered. Then standardized tools viz., the Home Environment Inventory (Misra, 2003), Mangal Emotional Intelligence Inventory (Mangal & Mangal, 2009) and Rao's Social Maturity
Scale (Rao, 2006) were administered to the students in the final sample for assessing their perception of home environment, emotional intelligence and social maturity respectively. Multiple Regression Analyses and Two-Way ANOVA revealed significant prediction of perception of home environment on the bases of emotional intelligence and social maturity of early adolescents. Results of z test showed that the gender difference in regression coefficients of emotional intelligence and social maturity were non-significant at 0.05 level of significance.

Keywords: Prediction of Perception of Home Environment, Emotional Intelligence, Social Maturity, Adolescents.

Introduction
Perception of home environment refers to children's and adolescent's perception of the extent of punishment, amount of chores at home, parental control, absence of parents, and parent's attitude towards authority figures (Amoroso *et al.*, 1986) [2].
Emotional intelligence is the innate potential to feel, use, communicate, recognize, remember, describe, identify, learn from, manage, understand and explain emotions (Hein, 2007) [11]. Emotional intelligence affects adolescent's relationship between themselves and with other people. That is to say emotional intelligence both defines adolescent's own development and maturity and also adolescent's relationships with others (Akkoc, 2007) [1].
Social maturity is ability to communicate, persuade and interact with other members of the society without undue conflict and disharmony (www.businessdictionary.com, 2009) [6]. The major components of social maturity are said to be social memory, social insight and social knowledge (Rychener, 1998) [30].

Importance of Perception of Home Environment, Emotional Intelligence and Social Maturity in Adolescence
The term adolescence comes from the Latin word *adolescere*, meaning "to grow" or "to grow to maturity". However, the term adolescence as we know it today has a broader meaning. It encompasses not only physical maturity but also mental (cognitive), emotional and social maturity. Adolescence spans from 12 through 19 years of age and is marked by rapid changes (Morgan *et al.*, 1993) [24]. With enhancement of cognitive abilities in adolescence, the perception of parents, parenting behaviors and home/family environments of adolescents become clearer, mature and more nuanced (Youniss and Smollar, 1985) [37]. Such perceptions of adolescents are also associated closely with their socio-emotional development (Hurlock, 2007) [12]. Social maturity in adolescence is marked by clear sense of identity, development of independence and autonomy (Mussen *et al.*, 1990) [26].

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The aspects of emotional intelligence *viz.*, accurate perception and expression of emotions, ability to access and generate emotions; understanding emotions and emotional meanings; emotional regulation (Mayer and Salovey, 1997; Mayer *et al.*, 2000) [18, 19] generally show remarkable improvement during adolescence (Hurlock, 2007) [12]. These socio-emotional developments seem to influence the perception of home (family) environment in adolescence (Singh, 1982; Serbin *et al.*, 1993; Katz, 1999; Sweeney and Bracken, 2000; and Nakao *et al.*, 2000) [33, 31, 13, 34, 27]. Just as adolescents show individual differences in social maturity and emotional intelligence so does their accuracy of perception of home (family) environment.

Researches on the Relation between Perception of Home Environment and Emotional Intelligence in Adolescence

Katz (1999) [13] found in an investigation on a sample of 12 years olds that there are many factors that contribute to adolescents depression. These factors include children's temperament, child rearing practices, peer and schools factors. It was opined that family interaction has an impact and home remains an important place to intervene when adolescents'' becomes depressed. Singh (1982) [33] studied the causes of children's behavior disorder and found that the affected children present no clinical neurological signs but unfavorable home, school and social environment precipitate the aggressive behavior mainly by the way of loss of temper. Aremu *et al.* (2004) [3] carried out a study on a sample of 500 senior secondary Nigerian school students aged 14 to 18 years and found that both emotional intelligence and parental involvement(as perceived by the students) could together predict their academic achievement. However, Weinstein *et al.* (2006) [36] conducted an investigation on samples of high schoolers (8th-9th grade, N=268 and 10th-11th grade, N=240) and did not find significant impact of family support on positive and negative moods. Sharma and Vaid (2005) [32] found in a study on a sample of 100 adolescents that parental approval does not correlate highly with emotional maturity or self-actualization of the adolescents.

Researches on the Relation between Perception of Home Environment and Social Maturity in Adolescence

Nakao *et al.* (2000) [27] carried out a study on a sample of 150 adolescents (104 males and 46 females, mean age 13 years) and found that extraversion was negatively associated with overprotection/interference and with maternal participation in child rearing. Maturity correlated with high socioeconomic status, appropriate child rearing style and paternal participation in child rearing. Serbin *et al.* (1993) [31] conducted a study on a sample of 558 children (5-12years) and concluded that the cognitive factors were also important in that children who believed gender stereotypes to be flexible were less sex typed (more socially mature) in their choices of activities and peers. In sum, both cognitive maturation and socialization (at home and outside) contributed to the development of sex typing during middle childhood. McCullough *et al.* (1994) [20] carried out a study on a sample divided into a leadership group (n=79) and control group (n=124) and found that the adolescents in the leadership group tended to live in a two-parent family structure. There was no significant difference between the two groups in levels of self-esteem. Sweeney and Bracken (2000) [34] worked with 815 pre-adolescent children and adolescents (aged 9-19years) and found that the total self-concept of students from single-parent families were significantly lower (indicating less social maturity) than the global scores of students from intact families. This finding highlights the role of home environment in the development of social maturity. Beest and Baerveldt (1999) [4] compared the adolescents perception of getting social support from parents and from peers. If the adolescents perceived a lack of support from home then they sought support from peers.

Researches on the Relation between Emotional Intelligence and Social Maturity in Adolescence

Charbonneau and Nicol (2002) [7] carried out a study on a sample of 191 adolescents (aged 14 years) and found that measures of emotional intelligence associated significantly with social desirability (indicating social maturity). It revealed a great deal of overlap between the two constructs. Marquez *et al.* (2006) [16] carried out an investigation on a sample of 77 high schoolers and found that emotional intelligence was also moderately related to social competence. Most of the findings remained significant after personality and academic intelligence were statistically controlled. Funke and Heinold (1979) [9] conducted a study on a sample of 126 elementary school teachers and reported that the main cause of school failure of children includes intellectual-emotional development retardation, social isolation and lack of intelligence. Chen *et al.* (2006) [8] carried out a study on a sample of 1060 Chinese high schoolers and found a positive association between emotional intelligence and life adjustment (indicating social maturity). Todorovic (2002) [35] studied a sample of 196 secondary school students (16-18 years) and concluded that the persons with emotional conflicts (low emotional intelligence) have lower self-esteem and physical attractiveness. Misanthropy and externalization, as defensive maneuvers, are more intensive among them. These hamper their social behaviors. Oria *et al.* (2001) [28] conducted a study on a sample of 9 control group and 11 experimental group subjects of 7th and 8th grades and reported that the influence of leadership training (which increases social maturity) was not significant with respect to the levels of experienced depression of the subjects.

Researches on Prediction of Perception of Home Environment of Adolescents based on their Emotional Intelligence and Social Maturity

Researches on the prediction of adolescent's perception of family (home) environment on the bases of their emotional intelligence and social maturity are scarce. Perceived family environment has frequently been considered as a predictor (e.g., Hauser *et al.*, 1985; Matherne and Thomas, 2001; and Mohanraj and Latha, 2005) [10, 17, 23]. In a few investigations (e.g., Murch and Cohen, 1989) [25] it has emerged as a moderator variable. Only some studies (e.g., Brinson, 1992; and Lubenko and Sebre, 2010) [5, 14] have treated the perception of family environment as dependent variable. So it is obvious that more investigations on the predictions of perception of family environment especially of adolescents are required.

This is because perception of family (home) environment is important in the familial adjustment of adolescents. Distorted perceptions seem to be the roots of frequent conflicts between adolescents and their families. The nature of such perceptions cannot be completely explained on the bases of cognitive factors. Socio-emotional factors seem to substantially influence the perception of family environment. Therefore, to what extent emotional intelligence and social maturity of adolescents account for the perception of their family (home) environment needs to be investigated. Such a study is crucial

in the Indian milieu where researches on the perception of family environment are limited in number. If indeed emotional intelligence and social maturity of adolescents are found to predict their perception of family environment then training programmes to develop these attributes of adolescents would be beneficial in improving the quality of their perception of family (home) environment. It may in turn help improve the family relations of adolescents.

Objectives of the study
1. To find out whether perception of home environment of adolescents is related to their emotional intelligence.
2. To find out whether perception of home environment of adolescents is related to their social maturity.
3. To find out whether emotional intelligence of adolescents is related to their social maturity.
4. To find out the gender difference, if any, in the above relationships.
5. To find out whether the perception of home environment of adolescents can be predicted by their emotional intelligence and social maturity.
6. To find out the gender difference, if any, in the prediction of perception of home environment of adolescents on the bases of their emotional intelligence and social maturity.

Hypotheses
1. The perception of home environment of adolescents is related to their emotional intelligence.
2. The perception of home environment of adolescents is related to their social maturity.
3. The emotional intelligence of adolescents is related to their social maturity.
4. There is gender difference in the above relationships.
5. Perceptions of home environment of adolescents can be predicted by their emotional intelligence and social maturity.
6. There is gender difference in the prediction of perception of home environment of adolescents on the bases of their emotional intelligence and social maturity.

Methodology
Sample
A stratified random sample comprising of 210 early adolescents – 105 girls and 105 boys ranging in age from 13 through 15 years was selected. The sample was selected from the city of Kolkata. It had equal representation from the three middle socio-economic status groups – upper middle, middle middle and lower middle.

Tools Used
➤ Home Environment Inventory (HEI) by K.S. Misra (2003)
➤ Mangal Emotional Intelligence Inventory (MEII) by S.K. Mangal and Shubhra Mangal (2009)
➤ Rao's Social Maturity Scale (RSMS) by Nalini Rao (2006)
➤ The Socio-Economic Status Scale (SESS) by Dr. Meenakshi (2004)

Design of the Study
The study is co-relational.

Statistical Analyses
Means, S.D.s for each variable and product-moment correlation coefficients between each pair of variables were calculated. Z test was carried out to test the significance of difference, if any, between the correlation coefficients (zÑ transformed) of the girls and the boys. Multiple Regression Analyses and ANOVA were conducted to find out whether perception of home environment can be significantly predicted on the bases of emotional intelligence and social maturity of early adolescents. Multiple Regression Analyses were conducted for the entire sample as well as separately for the two gender groups. In each case tests of significance were conducted. Z test was conducted to test the difference, if any, between standardized regression coefficients (of each predictor) for the gender groups. SPSS 16 was used.

Results and Discussion

Table 1: Mean and S.D. values of the Variables for the Entire Sample (N=210)

Variables	Mean	S.D.
Perception of Home Environment	211.22	43.31
Emotional Intelligence	48.96	11.89
Social Maturity	215.70	22.07

Table 2: Mean and S.D. values of the Variables for the Girls (N=105)

Variables	Mean	S.D.
Perception of Home Environment	205.55	38.96
Emotional Intelligence	49.66	12.86
Social Maturity	213.00	22.20

Table 3: Mean and S.D. values of the Variables for the Boys (N=105)

Variables	Mean	S.D.
Perception of Home Environment	216.89	46.76
Emotional Intelligence	48.26	10.84
Social Maturity	218.41	21.70

After studying the mean and S.D. values presented in Tables 1, 2 and 3 the product-moment correlations among the relevant variables will be scrutinized. So the correlation matrix for the entire sample will be initially presented.

Table 4: Correlation Matrix for Entire Sample (N=210)

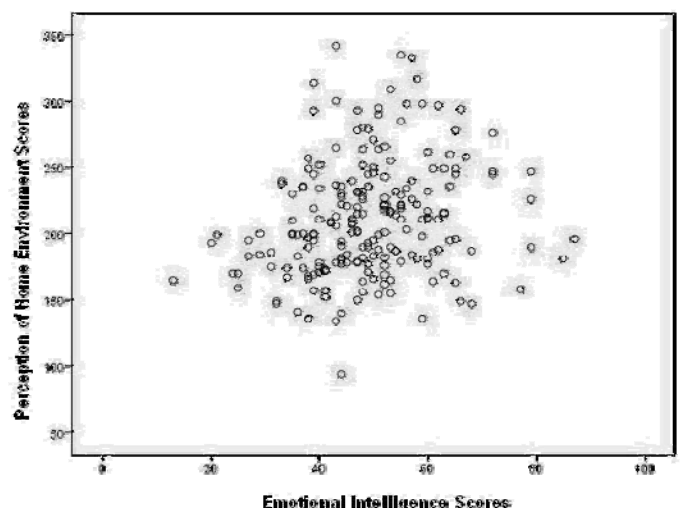| Variables	Perception of Home Environment	Emotional Intelligence	Social Maturity
Perception of Home Environment	1	0.21**	-0.21**
Emotional Intelligence	0.21**	1	0.09
Social Maturity	-0.21**	0.09	1

**$p<.01$

Fig. 2. Scatter Plot : Relation between Perception of Home Environment and Emotional Intelligence Scores for the Entire Sample(N=210)
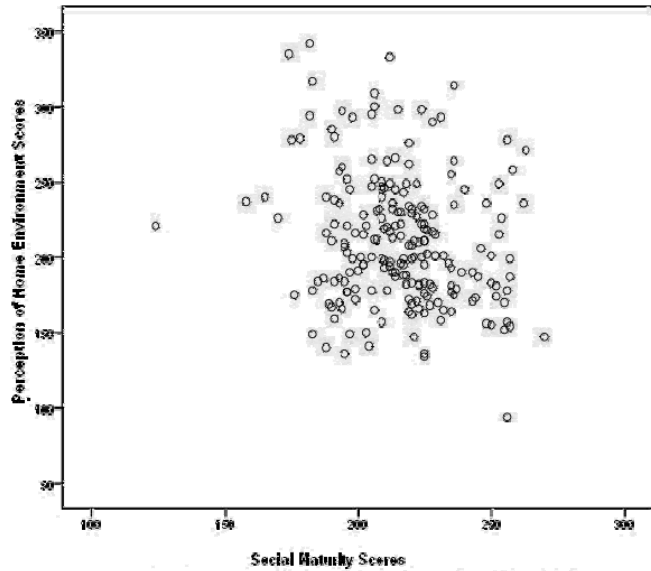
Fig.3.Scatter Plot : Relation between Perception of Home Environment and Social Maturity Scores for the Entire Sample (N=210)
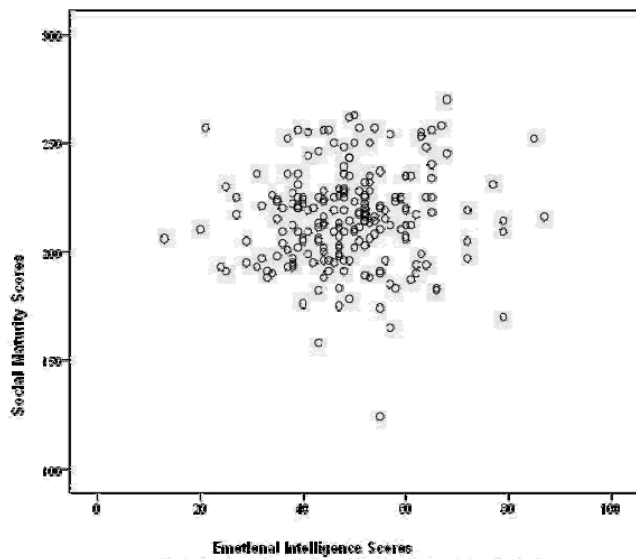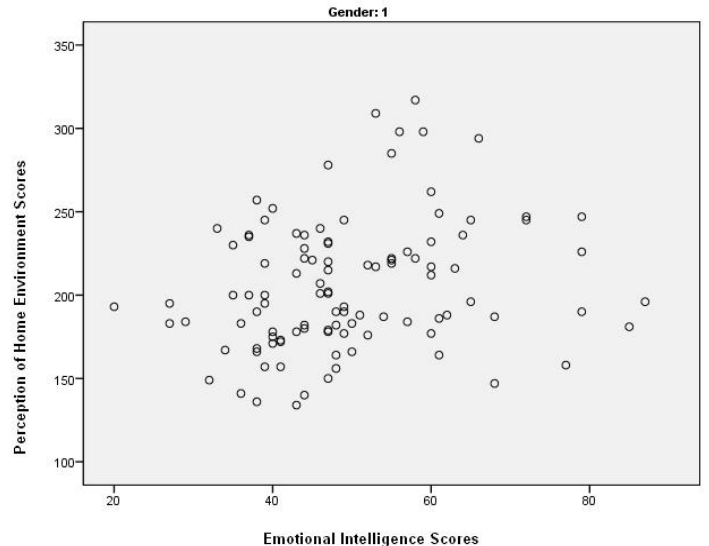

Fig.5. Scatter Plot : Relation between Perception of Home Environment and Emotional Intelligence Scores for the Girls(N=105)
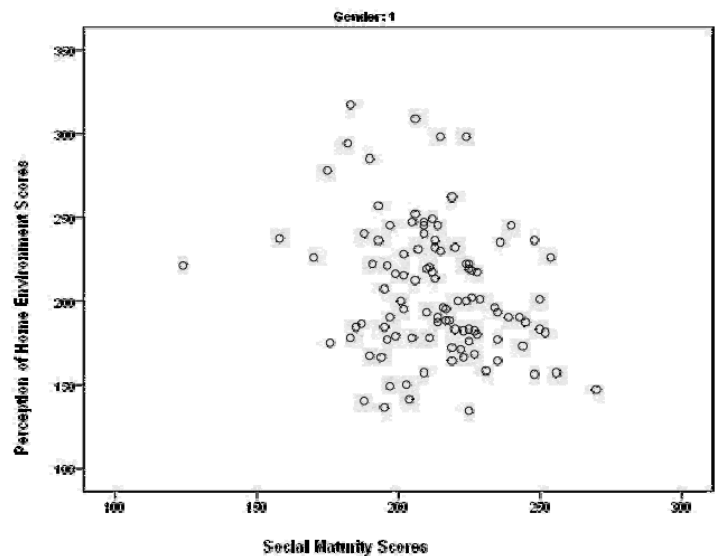

Fig.4. Scatter Plot : Relation between Social Maturity and Emotional Intelligence Scores for the Entire Sample (N=210)

Fig.6. Scatter Plot : Relation between Perception of Home Environment and Social Maturity Scores for the Girls (N=105)

It is clear from the findings reported in Table 4 and Figures 2 as well as 3 that adolescents" perception of home environment is significantly associated with their emotional intelligence and social maturity. Besides the perception of home environment and social maturity share an inverse relationship. This means that as the social maturity scores of adolescents increase the scores of perception of home environment tend to decrease and vice versa.

Table 5: Correlation Matrix for the Girls (N=105)

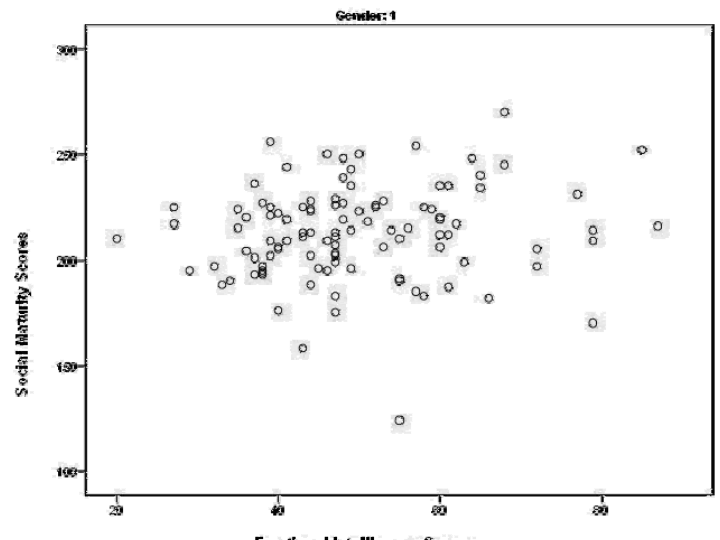| Variables	Perception of Home Environment	Emotional Intelligence	Social Maturity
Perception of Home Environment	1	0.23*	-0.25*
Emotional Intelligence	0.23*	1	0.13
Social Maturity	-0.25*	0.13	1

*$p<.05$

Fig.7. Scatter Plot : Relation between Social Maturity and Emotional Intelligence scores for the Girls(N=105)

It is clear from the results presented in Table 5 and Figures 5 as well as 6 that girls" perception of home environment is significantly related to their emotional intelligence and social maturity. Moreover the perception of home environment and social maturity manifest a reciprocal relationship. This indicates that as the social maturity scores of girls increase their scores of perception of home environment tend to decrease and vice versa.

Table 6: Correlation Matrix for the Boys (N=105)

Variables	Perception of Home Environment	Emotional Intelligence	Social Maturity
Perception of Home Environment	1	0.22*	-0.23*
Emotional Intelligence	0.22*	1	0.07
Social Maturity	-0.23*	0.07	1

*$p<.05$

Fig.8. Scatter Plot : Relation between Perception of Home Environment and Emotional Intelligence Scores for the Boys(N=105)

Fig.9. Scatter Plot : Relation between Perception of Home Environment and Social Maturity Scores for the Boys (N=105)
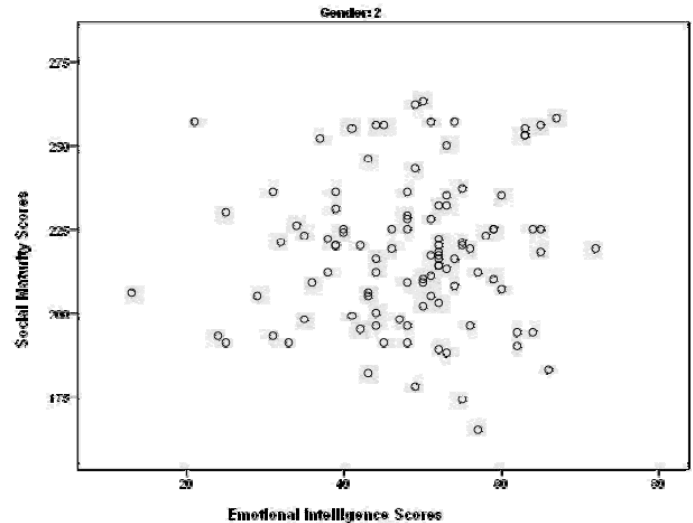

Fig.10. Scatter Plot : Relation between Social Maturity and Emotional Intelligence Scores for the Boys(N=105)

It is clear from the findings reported in Table 6 and Figures 8 as well as 9 that boys" perception of home environment is significantly associated with their emotional intelligence and social maturity. Besides the perception of home environment and social maturity show an inverse relationship. This means that as the social maturity scores of boys increase the scores of perception of home environment tend to decrease and vice versa.

The results presented in Tables 4 to 6 and Figures 2 to 10 that reveal the significant relation between perception of home environment and emotional intelligence as well as that between perception of home environment and social maturity of adolescents. Thus hypotheses 1 and 2 are upheld. The significant association found between adolescents" perception of home environment and their emotional intelligence is in line with the results reported by Singh (1982) [33] and Katz (1999) [13]. The significant relation shared by adolescents" perception of home environment and their social maturity is somewhat in agreement with the findings of Serbin *et al*. (1993) [31] and Nakao *et al*. (2000) [27]. It is also evident that the association between emotional intelligence and social maturity is non-significant at .05 and .01 levels. So hypothesis 3 is not supported. This outcome is somewhat consonant with that of Oria *et al*. (2001) [28].

Table 7: Results of z Tests: Significance of Gender Difference in Correlation Coefficients (zÑ Transformed)

Statistic	Correlation Between Perception of Home Environment and Emotional Intelligence	Correlation Between Perception of Home Environment and Social Maturity	Correlation Between Emotional Intelligence and Social Maturity
z	0.07	- 0.21	0.43

Table 7 reveals that none of the differences between the respective correlation coefficients of the girls and the boys are significant at .05 and obviously at .01 levels of significance. Thus hypothesis 4 is not supported. It seems that the relations among the relevant variables do not vary significantly due to gender. Rather corresponding correlation coefficients with similar magnitudes and directions have been obtained irrespective of gender.
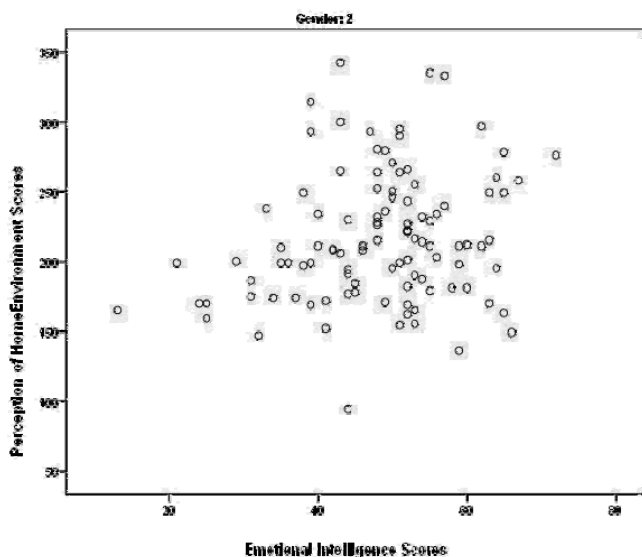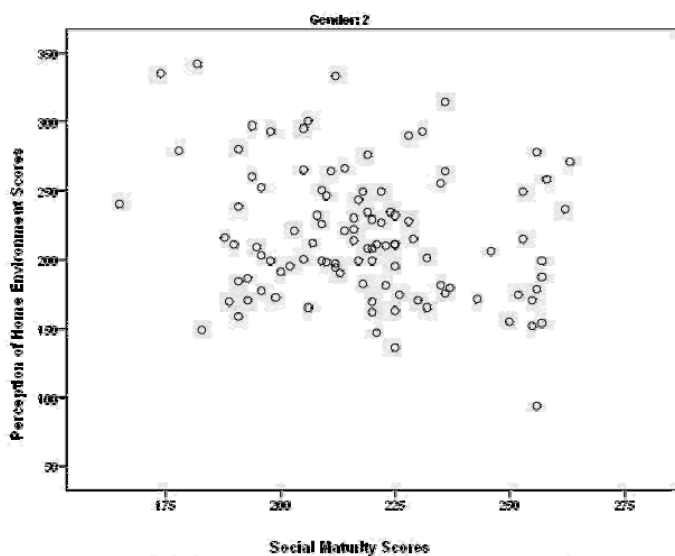
Table 8: Results of Regression for Perception of Home Environment Scores (Dependent variable) of the Entire Sample (N=210)

Predictors	Regression Coefficients	Std. Error
Emotional Intelligence	0.84	0.24
Social Maturity	-0.46	0.13
Intercept=269.90		R=0.32**
R^2=0.10		

**p<.01*

Table 9: Summary of ANOVA: Regression for Perception of Home Environment Scores of the Entire Sample (N=210)

Source of Variation	Sum of Squares	df	Mean Square	F
Regression	38820.52	2	19410.26	11.38**
Residual	353219.40	207	1706.37	

**p<.01*

From the significant R and F values reported in Tables 8 and 9 it is evident that the perception of home environment scores of the boys and girls can be significantly predicted based on their emotional intelligence and social maturity scores. The R^2 value shows that only 10% of the variance in the perception of home environment scores of the sampled adolescents can be accounted for by these predictors.

Table 10: Results of Regression for Perception of Home Environment Scores (Dependent variable) of the Girls (N=105)

Predictors	Regression Coefficient	Std. Error
Emotional Intelligence	0.79	0.28
Social Maturity	-0.49	0.16
Intercept=270.86		R=0.36**
R^2=0.13		

**p<.01*

Table 11: Summary of ANOVA: Regression for Perception of Home Environment Scores of the Girls (N=105)

Source of variation	Sum of Squares	df	Mean Square	F
Regression	20141.35	2	10070.68	7.46**
Residual	137748.61	102	1350.48	

**p<.01*

From the significant R and F values reported in Tables 10 and 11 it seems that the perception of home environment scores of the girls can be significantly predicted based on their emotional intelligence and social maturity scores. The R^2 value shows that only 13% of the variance in the perception of home environment scores of these girls can be accounted for by these predictors.

Table 12: Results for Regression for Perception of Home Environment Scores (Dependent Variable) of the Boys (N=105)

Predictors	Regression Coefficient	Std. Error
Emotional Intelligence	1.03	0.40
Social Maturity	-0.53	0.20
Intercept=281.94		R=0.33**
R^2=0.11		

**p<.01*

Table 13: Summary of ANOVA: Regression for Perception of Home Environment Scores of the Boys (N=105)

Source of variation	Sum of Squares	df	Mean Square	F
Regression	24431.42	2	12215.71	**6.14**
Residual	202975.21	102	1989.95	

**p<.01*

From the significant R and F values reported in Tables 12 and 13 it is apparent that the perception of home environment scores of the boys can be significantly predicted based on their emotional intelligence and social maturity scores. The R^2 value shows that only 11% of the variance in the perception of home environment scores of the sampled boys can be accounted for by these predictors.

The results presented in Tables 8 to 13 show that adolescents" perception of home environment can indeed be significantly predicted on the bases of their emotional intelligence and social maturity. Therefore hypothesis 5 is supported. This finding that perception of home environment can be predicted is congruent with the outcomes of researches conducted by Brinson (1992) [5] and Lubenko and Sebre (2010) [14]. However Tables 8, 10 and 12 have shown that only small proportions of the variance in adolescents" perception of home environment could be accounted for by the predictors viz., emotional intelligence and social maturity. This is because there are variables other than these e.g. cognitive factors, personality, peers and school factors, socio-economic status and family structure which also influence the perception of home environment of adolescents (Singh, 1982; Serbin et al., 1993; McCullough et al.,1994; Katz, 1999 and Nakao et al., 2000) [33, 31, 20, 13, 27].

Table 14: Results of z Test: Significance of Gender Difference between Regression Coefficients

Predictors	Standardized Regression Coefficients for		z obt.
	Girls(N=105)	Boys(N=105)	
Emotional Intelligence	0.26	0.24	0.14
Social Maturity	-0.28	-0.24	-0.29

Table 14 shows that the obtained z values are non-significant at .05 and .01 levels of significance. So it appears that the boy and girls do not differ significantly in the respective regression coefficients for emotional intelligence and social maturity. Thus hypothesis 6 is not supported.

Conclusion
The results reveal that adolescents" perception of home environment can be significantly predicted by their emotional intelligence and social maturity scores. It has been also found that the said prediction does not differ by gender. Thus it is suggested that the socioemotional development of boys and girls be fostered in similar ways right from infancy so that their perception of home environment remains free from distortions. But their emotional intelligence and social maturity need to be developed using separate strategies since the present study showed non-significant association between the two attributes.

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