

The Moderating Role of Gender on the Relationship between Family Environment and Emotional Intelligence

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Abstract: Although a bulk of literature indicates that family environment influence emotional intelligence, the gender of early adolescents as one of the important determinants which buffers this effect received little empirical attention. The current study investigated the moderating role of gender on the relationships between family environment and emotional intelligence among 234 early adolescents (female and male) in grades 2 and 3 of guidance schools of Tehran, Iran. Data were collected using the Emotional Quotient Inventory Youth Version (Baron EQ-i; YV, 2000) and the Moos & Moos Family Environment Scale. Results revealed that family environment fostered emotional intelligence in their early adolescents. Furthermore, the findings demonstrated that gender moderated the relationship between family environment and emotional intelligence. Specifically, male respondents had tended to indicate more emotional intelligence than female respondents at higher levels of family environment. These findings underscore the need for continued focus on the role of parenting style when assessing the links between family environment and early adolescent's emotional intelligence.

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1. Introduction

Emotional intelligence (EI) is a new concept based on the tradition of multiple intelligences. EI can be traced back to the work of Thorndike (1920) who introduced the concept of Social Intelligence in his Multi-Factor theory of intelligence (Thorndike, 1920). Recently, as a behavioral model, rising to prominence with Daniel Goleman's 1995 book by the name of "Emotional Intelligence". However, the early Emotional Intelligence theory was originally developed during the 1970's and 80's by the work and writings of psychologist in Harvard, Yale, and New Hampshire universities (Kingsland, 2007). The basic principles of Emotional Intelligence are identifying, managing, understanding, and regulating emotions (Goleman, 1995). The emotional intelligence construct is a relatively new concept with little empirical research, particularly related to the link between five specific sub-components of the early adolescent's emotional intelligence, their family environment and gender.

There has been a growing interest in the emotional functioning of early adolescents and the factors that influence it (Saarni, 2000; Eisenberg & Fabes, 1997; Steven, 2004; Goleman, 1995; Kingsland, 2007) in order to develop more integrated theories of development (Steven, 2004). On the other hand, emotional intelligence is associated with factors such as life satisfaction, adaptability, optimism, overall

intelligence, personality, and emotional disorders like alexithymia, depression (Naghavi et al, 2011).

According to a new study, there are several notable differences between men and women in emotional intelligence. Men seem to have significantly stronger interpersonal skills than their men counterparts do, men appear to have a stronger sense of self and deal better with stress. According to Steven Stein (2004), women is more aware of their feelings and those of others, relate better interpersonally, and are significantly more socially responsible than men. On the other hand, men seem to have stronger self-regard and cope better with immediate problems of a stressful nature than women.

Petrides (2000) has found the relationship between gender and emotional intelligence among two hundred and sixty predominantly white participants completed a measure of trait emotional intelligence (EI) and estimated their scores. Findings indicated that females scored higher than males on the "social skills" factor of measured trait emotional intelligence (Petrides & Furnham, 1985).

The gender of the early adolescent should also be considered in any effort to know potential differences in family's emotion socialization practices. For instance, anger reactions are more tolerated in boys than in girls (Condry & Ross, 1985). Moreover, anger responses in girls are more likely to be followed by negative emotional reactions from mother's whereas

the anger responses of boys receive more empathic maternal reactions (Malatesta et al, 1989). Family of girls expects more emotional manages and the use more sophisticated emotion regulation strategies than family's boys (Banerjee & Eggleston, 1993). These findings led us to expect that family's girls would report expressing more emotions than family's boys.

Naghavi & Marof (2011) believe that further to individual differences of boy and girl, the expectations of society and people around, especially parents, are different in terms of children's sexuality. Culturally, girls are mostly expected to be more expressive of feelings, whereas abstaining from feelings expression in boys is strengthened as a manly model.

Gottman (1997) pointed that good parenting requires not only intellect but also involves emotion. In the last decade or so, science has discovered a tremendous amount about the role emotions play on our lives. Researchers have found that even more than IQ, emotional awareness and ability to handle feelings will determine success and happiness in all lifestyles, including family relationships (Gottman, 1997). For parents, this quality of emotional intelligence as many now call it means being aware of early adolescence's feelings, and being able to empathize, soothe, and guide them. For early adolescence, who learn most lessons about emotion from their family, it includes the ability to control impulses, delay gratification, motivate them, read other people's social cues, and cope with life's difficulties. In addition, early adolescents whose parents consistently practice emotion coaching have better physical health and score higher academically than early adolescence whose family do not offer such guidance.

Consequently, considering the potential influences on emotional intelligence may be useful and vital. If numerous factors are found to influence emotional intelligence, then individuals can find ways to enhance emotional intelligence and subsequent lifelong achievement. This process is undoubtedly one of the importance ways that led to individual and social development (Naghavi, 2010).

In raising emotional intelligence among early adolescents, it is important to study what factors that contribute to the development of this construct. Parents are viewed as major contributors to early adolescent's emotional intelligence (McClun & Merrell, 1998). In all cultures, families are recognized as a fundamental influence for their children's and adolescents' well-being (Rotter, 1966). Parents who are approving and responsive tend to build emotional intelligence, whereas disapproving, unresponsive and uninterested parents may develop emotional intelligence in their early adolescents (Salovey & Mayer, 1990; Megnuson, 2007). Therefore, familial influences on emotional intelligence have enduring effect throughout life.

However, associations between family environment and early adolescent outcomes might vary when the gender as one of the ecological factors is taken into account. Research provide evidence indicating that boy respondents had tended to indicate more emotional intelligence than girl respondents at higher levels of family system maintenance and use child-rearing strategies that highlight self-direction (autonomy) interpersonal skills and emotion regeletion (Salovey & mayer, 1990; Dornbush & Ritter, 1990; Aavik, 2006).

Nonetheless, studies have generally looked at the direct relationships between family environment and early adolescents' outcomes (Megnuson, 2007; Cohen et al, 2008) and largely ignoring the moderating or indirect influence of gender on these relationships. Hence, the main focus and contribution of this study is to examine how gender moderates the relationships between family environment and early adolescents' emotional intelligence. Besides that, it is necessary to further examine the specific conditions under which these moderating effects exist. Examining these interactions is another important contribution of this research.

2. Materials and Methods

Participants included 234, 11-14th grade students (mean age = 12.27±1.26 years) from selected guidance schools in the 19 educational regions in the city of Tehran. There were approximately equal proportions of male and female participants. Therefore, from the all respondents (50.4% n=118) were girls and (49.6% n=116) were boys.

At the beginning of the first semester of 2010-2011, the researcher visited all in grades second and third of Tehran's guidance schools and before distribution of questionnaires, a brief explanation regarding the aim of the study and the content of the instruments were given to the students. The questionnaire was divided into three parts. The first part of the questionnaire covered background information, the second part included the Family Environment Scale and the Bar-On EQ-i:YV followed by a scale which assessed the respondent's emotional intelligence. Furthermore, the backward-forward translation procedure was used to translate the instruments into Farsi. This procedure performed by two native-speakers of the target language. Then translations are compared and checked by a third consultant, and discrepancies are solved by consensus. Students answered the questions in the class, and they were reminded that participation was voluntary, and their responses did not have any influence on their grades.

For Demographics informaten fathers completed a demographic form including information about level of family income, family size, fathers' level of education

and age, and adolescents filled out the questions about their date of birth and gender.

Family Environment was assessed via the Family Environment Scale (FES), which is development by Moos (1974). It consists of 90 true/false questions divided into three dimensions and 10 subscales. In the Relationship dimension are three subscales: cohesion, expressiveness, and conflict. The Personal Growth dimension consists of five subscales: independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis. The System Maintenance dimension includes two subscales: organization and control. This instrument has good internal consistency with alphas that range from 0.74 to 0.87 for three subscales and the overall stability is very good with two-week test-retest reliabilities that range from 0.77 to 0.92 (Hill, 1995). In the current study, the internal consistency was 0.73, 0.75, and 0.74 for the Relationship, Personal Growth, and System Maintenance subscales respectively.

The Emotional Quotient Inventory Youth Version (Bar-On EQ-i:YV, 2000) using for assessing early adolescent's emotional intelligence. This scale consists of 60 brief items and a five-point Likert style format response set (ranging from "Not True of Me" to "True of Me"). The Bar-On EQ-i instrument consists of the following five scales. Each scale briefly described as follow. The first scale, intrapersonal, involves the ability of the individual to understand their emotions as well as communicate and express feelings and needs. The second scale, interpersonal, measures one's ability to form and maintain satisfying relationships with others. The adaptability scale involves measuring one's ability to manage. The fourth scale, stress management, includes one's ability to remain calm in the face of stressful events. The general mood scale measures optimism and positive outlook. Finally, the total EQ scale is a measure of one's ability to be effective in dealing with daily demands while remaining happy or satisfied.

The first step in ascertaining a respondent's EQ-i:YV results was to calculate raw five composite factors and each child's total emotional intelligence. Each item is assigned with "points" ranging from one to five based on the respondent's responses. In this study, the internal consistency (reliability) of the EQ-i:YV was examined using the Cronbach's alpha and the result was $\alpha = 0.91$. Reliability indicates the extent to which individual differences in test scores are attributable to "True" differences in the characteristics under consideration (Anastasi, 1998). A test-retest reliability of 0.71 was found with a group of eleven graders. A Spearman-Brown split-half reliability of 0.74 was found for grades eleven through fourteenth. In this study, a Spearman-Brown split-half reliability was 0.70.

3. Results

Following the scientific research tradition, the level of confidence for all calculations was set at alpha 0.05. An intercorrelation matrix was produced between all predictor variables and the criterion variable for the total sample as presented in Table 1. Overall, the results from the correlation analyses as illustrated in the correlation matrix identified significant relationships between some of the independent variables and the dependent variable. Specifically, the variables of boy's emotional intelligence and emotional intelligence had significant negative relationship, which suggested that as boy's emotional intelligence increased, emotional intelligence also, tended to decrease. Contrary to expectations, no statistically significant direct relationships were found between emotional intelligence and any of the family environment except family system maintenance. The negative correlation between family system maintenance and emotional intelligence showed that early adolescents tended to have emotional intelligence when they perceived their fathers as high system maintenance.

Hierarchical multiple regression analysis was conducted to examine whether gender moderated links between family environment and emotional intelligence. On the first Step of the hierarchical regression analysis, gender was entered, followed by family environment -system maintenance, personal growth and relationship-on Step 2 and two-way interactions on Step 3.

As it has been shown in Table 2, the interaction variables at Step 3, accounted uniquely for an additional 1.9 of variance to adolescent's emotional intelligence ($F_{\{8,405\}} = 18.120, p \leq 0.001$). Examination of the variables within the third block revealed that the interaction between family system maintenance family environment and gender was significant ($\beta = -0.18, p \leq 0.05$).

Post-hoc regression analyses were performed in accordance with standards outlined by Aiken and West (1991) to evaluate possible differences for the only significant interaction variables namely, family system maintenance \times gender (Aiken & West, 1991). The values of boys and girls corresponding to one standard deviation above the mean and one standard deviation below the mean have been used in plotting significant interaction. Examination of these interaction effects between two groups of study (boys and girls) of respondents demonstrated that family system maintenance was significantly related to emotional intelligence for boys early adolescents ($b = -0.148, t = -3.894, p \leq 0.001$). This finding suggested that family system maintenance was most useful for early adolescents when boy's emotional intelligence is high, however it is not significant when overall emotional intelligence was low. Figure 1 provides a graphic

example of the interaction effects of system maintenance and gender in predicting emotional intelligence.

4. Discussion

The purpose of the present study is to examine the moderating role of gender on the relationship between family environment and emotional intelligence. Even though some of these variables have been explored individually among predominantly Western and Caucasian early adolescents (Shumow & Miller, 2001; Paguio et al 1987; Sorkhabi, 2005; Flouri, 2006), the combination of these factors and the role they may play in Iranian guidance school settings represent a novel contribution to the literature. It could perhaps be an indication that more research into EI and reaction time within gender to be carried out to further this discovery.

The first hypothesis, regarding family environment and its relation with emotional intelligence, was partially supported. The results demonstrated that family system maintenance was related to emotional intelligence. This is consistent with the findings of previous research which have shown that family system maintenance promote emotional intelligence (Megnusson, 2007; Marsiglia et al, 2007). Our findings also revealed that neither the main effect of family functioning growth nor relationship family significantly predicted emotional intelligence. However, the direction of these results support those found by Nowicki and Segal (1974) that possible antecedents to emotional intelligence could be traced to the parent-child relationship (Nowickian & Segal, 1974).

The second hypothesis, regarding the moderating effect of gender on the relationship between family system maintenance and emotional intelligence was also supported. Additional analyses revealed that between emotional intelligence of boys and girls and high family system maintenance, boys' emotional intelligence tended to foster more emotional intelligence. This finding is consistent with the previous research which indicates that the amount of

early adolescent's emotional intelligence that family receive positively impacts on how they structure their home environment as well as how they interact with their early adolescents in promoting positive outcomes such as academic achievement and other personality characteristics.

Petrides and Furnham (2000) have demonstrated that males self-believed they had higher emotional intelligence than females. In addition, males seem to have stronger self-regard and cope better with immediate problems of stressful nature than females (Steven, 2004). However, with respect to gender, the differences in emotional intelligence scores is still being developed and result of test of analysis of gender moderating confirmed some findings of the previous research.

The present study makes several contributions to the literature by providing data on an important and understudied population of early adolescents and by bringing together a number of different constructs (family environment, emotional intelligence, and gender) that have typically only been explored individually or in pairs in the past (Steven, 2004; Mayer & Salovey, 1997; Wiltfang et al 1999). This study suggests that family system maintenance plays a vital role in the development of emotional intelligence, and gender is probably significant within this population. Gender differences in EI can be glimpsed from infancy due to the differential teaching given to boys and girls. According to these studies further to individual differences of boy and girl, the expectations of society and people around, especially parents, are different in terms of children's sexuality.

The current study includes several limitations which need to be considered in future research. The focus here on family system maintenance begs for replication in future research with both mothers and fathers, in order to observe any unique associations that may be present across gender of the parents. Future research should also attempt to observe results directly from families, in regard to their family environment instead of relying strictly on students' self-report design.

Table 1. Correlations between Major Study Variables (n=234)

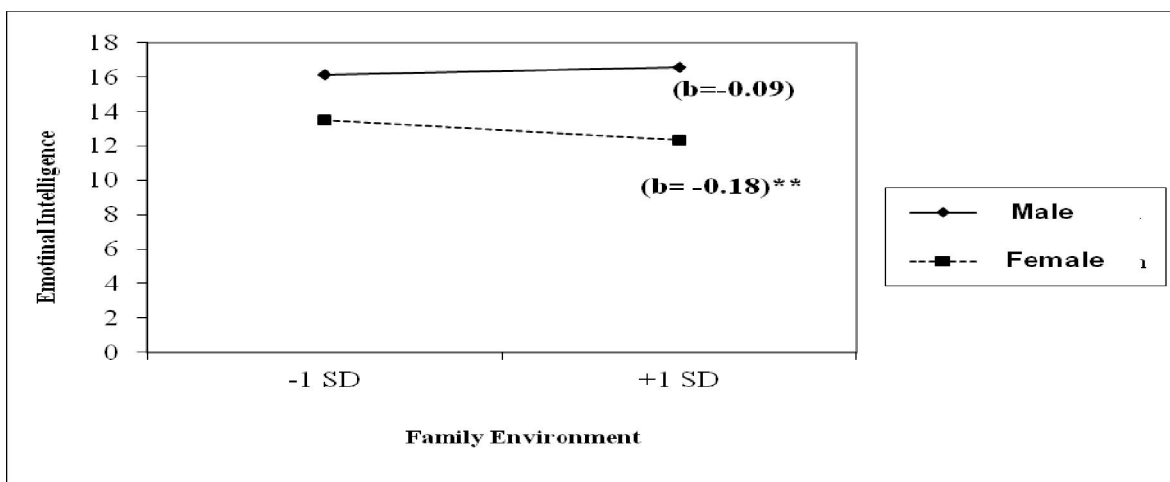
Variables	1	2	3	4	5
1. Gender	-				
2. Relationship	0.04	-			
3. Personal Growth	0.08	-0.13*	-		
4. System Maintenance	0.21**	0.22*	0.087	-	
5. Emotional Intelligence	-0.47**	0.06	0.07	-0.26**	-

* $p < 0.05$; ** $p < 0.01$

Table 2. Hierarchical Multiple Regression Analyses for Predicting Early Adolescents' Emotional Intelligence from Family Environment, and Gender (N=234)

Predictor	R ²	Δ R ²	B
Step1	0.189***		
Gender			-0.448**
Step 2	0.260**	0.043**	
Relationship			0.106*
Personal Growth			0.105*
System Maintenance			-0.215**
Step 3	0.269*	0.018*	
Relationship x Gender			-0.006
Personal Growth x Gender			-0.086
System Maintenance x Gender			-0.099*

* p<0.05, ** p<0.001

**Figure 1. Plotting the interaction between family environment and gender on emotional intelligence, b = unstandardized regression coefficient (i.e., simple slope); SD = Standard Deviation****Corresponding Author:**

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References

- Thorndike, E. Intelligence and its uses. Harper's Magazine, 1920;(140): 227-235.
- Kingsland, P. Emotional Intelligence. Retrieved August, 2007. From http://www.pamelakingsland.co.uk/emotional_intelligence2.html, 2007.
- Goleman, D. Emotional Intelligence: Why It Can Matter More Than IQ. New York: Bantam, 1995.
- Steven G. W. J. M., W. A. M. Vollebergh, T. V. M. Pels and A. A. M. Crijnen. Parenting and internalizing and externalizing problems in Moroccan immigrant youth in the Netherlands. Journal of Youth and Adolescence, 2004;(36): 685-695.
- Eisenberg, M. & Fabes, R. Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. Auburn House, Westport CT, 1997.
- Saarni C, 2000. Emotional Competence: A Developmental Perspective. The Handbook of Emotional Intelligence. Thorndike, E 1920. Intelligence and Its Uses. Harper's Magazine, 140, P.22-23.
- Naghavi, Fataneh, R. Ma'rof., and Mariani, M. The relationship between alexitymia and emotional intelligence. Asian social science, Published by Canadian Center of Science and Education, 2010; (6), 11:166-170.
- Petrides, K. V., & Furnham, A. Gender differences in measured and self-estimated trait emotional intelligence. Journal of Psychology, 2000;(42): 5-6.
- Condry & Ross. Adult sex role orientation and perceptions of aggressive interactions between girls and boys, Journal of Psychology, 1985;(23):13-17.

10. Malatesta, C. Z., Culver, C., Tesmn, J., & Shephard, B. The development of emotion expression during the first two years of life. *Monographs of the Society for Research in Child Development*, 1989;50: 219.
11. Banerjee, M., Eggleston, R. Preschooler's and parents understanding of emotion regulation, *British Journal of Developmental Psychology*, 1993;9:431-435.
12. Naghavi, F. & Marof, R. (2011). The relationship between gender and emotional intelligence. *World Applied Sciences Journal* 15, 555-561.
13. Gottman, J. *Raising an Emotionally Intelligent Child: The heart of parenting*. New York: Simon & Schuster 1997.
14. Naghavi, Fataneh. The relationship between family functioning and alexithymia. *Canada International Conferenc on Education(CICE-2010)*. Canada, 2010.
15. McClun, L. A. and K. W. Merrell. Relationship of perceived parenting styles, locus of control, and self-concept among junior high age students. *Psychology in the Schools*, 1998;(35):381- 392.
16. Rotter, J. B. *Generalized Expectancies for Internal Versus External Control of reinforcement*. *Psychological Monographs; General and Applied*, 1966;(80): 1-28.
17. Salovey, P., & Mayer, J. D. Emotional intelligence. *Imagination, Cognition, and Personality*, 1990;(9):185-211.
18. Magnuson, K. Maternal education and children's academic achievement during middlechildhood. *Developmental Psychology*, 2007;(6):1497-1512.
19. Dornbush, S.M., P.L. Ritter, R. Mont-Reynaud and Z. Chien. Family Descision making and accademic performance in a diverce high school population. *Journal of Adolescent research*, 1990; (5):143-160.
20. Aavik, A., T.Aavik, and J. Kõrgesaar. Parenting practices and personal values comparisons between parents of institutionalized and non-institutionalized adolescents. *TRAMES*, 2006;(1): 44-56.
21. Cohen, E., G. Biran, A. Aran, and G. T . Varda. Locus of control, perceived parenting style, and anxiety in children with cerebral palsy. *Journal of developmental and physical disabilities*, 2008; (20):415-423.
22. Anastasi, A. *Psychological testing* (6th ed.). New York: Macmillan, 1988.
23. Aiken, L. S., and S. G. West. *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage, 1991.
24. Shumow, L., & Miller, J. D. Parents' at-home and at-school academic involvement with young adolescents. *The Journal of Early Adolescence*, 2001;(21):68-91.
25. Paguio, L., B. Robinson, P. Skeen, and J. Deal. Relationship between fathers' and mothers' socialization practices and children's locus of control in Brazil, the Philippines, and the United States. *Journal of Genetic Psychology*, 1987; (148): 303- 313.
26. Sorkhabi, N. Applicability of Baumrind's parent typology to collective culture: analysis of cultural explanations of parent socialization effects. *International Journal of Behavioral Development*, 2005;(29): 552-563.
27. Flouri, E. Parental interest in children's education, children's self-esteem and locus of control, and later educational attainment: Twenty-six year follow-up of the 1970 British Cohort. *British Journal of Educational Psychology*, 2006; (76): 41-55.
28. Marsiglia, C. S., J. J. Walczyk, W. C. Buboltz, and D. A. Griffith-Ross. Impact of parenting styles and locus of control on emerging adults' psychosocial success. *Journal of emotion and human development*, 2007;(1):1.
29. Nowicki, S. and W. Segal. Perceived parental characteristics, locus of control. *Developmental Psychology*, 1974;(10): 33-38.
30. Bar-On, R., & Parker, J. D. A. *The handbook of emotional intelligence: theory, development, assessment, and application at home, school, and in the workplace*. Jossey-Bass, San Francisco, 2000.
31. Mayer, J., D., Salovey. *What is a Emotional Intelligence? Emotional Development and Emotional Intelligence: Implications for educators*. New York: Basic Books, 1997.
32. Wiltfang, G.L., Scarbecz, M. Social class and adolescents' self-esteem: Another Look, *Social Psychology Quarterly*, 1990;(53): 174-183.