



UNIVERSITI PUTRA MALAYSIA

***RELATIONSHIPS BETWEEN FAMILY DYSFUNCTION, ALEXITHYMIA,
AND LOW EMOTIONAL INTELLIGENCE AMONG EARLY
ADOLESCENTS
IN TEHRAN, IRAN***

FATANEH NAGHAVI

FEM 2016 23



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By

FATANEH NAGHAVI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

March 2016

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DEDICATION

This work is dedicated to my family, especially to my ever encouraging *father*, for his love.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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March 2016

Chairman : Assoc. Prof. Ma'rof Redzuan, PhD
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Considering the potential influences on emotional intelligence are important and beneficial. If several factors are found to influence emotional intelligence, then individuals will be able to find ways to enhance emotional intelligence and following lifelong success. In Iran, however, the study on relationship between family dysfunctioning, alexithymia with low emotional intelligence has received very little attention. Thus, the current research is essential and necessary. The main purpose of this study was to determine the relationships between family dysfunctioning, alexithymia and low emotional intelligence among early adolescents in Tehran-Iran.

There were a total of 234 early adolescents (115 boys and 119 girls in Grades 2 and 3 of Guidance Schools of Tehran) participating in this study. They were identified using Multi-Stage Cluster sampling. Data were collected using self-administered questionnaire, namely, Background Characteristics questionnaire, Schutte's (1998) Emotional Intelligence Scale, Rieffe's Children's Alexithymia Scale (2006), which are consistent with the original adult questionnaire for alexithymia (TAS-20), and Family Assessment Device (FAD), based on McMaster's model.

The findings of the present study highlighted the importance of early adolescent's background in enhancing emotional intelligence. However, the contribution of family dysfunctioning in low emotional intelligence is indirect through alexithymia. The nature of the relationships between family dysfunctioning, alexithymia (as a mediator) and low emotional intelligence implied that emotional intelligence of early adolescents could be improved if families learn how to identify, express and manage their emotions since they can model healthy identification, expression and management of emotions in their early adolescents.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**HUBUNGAN ANTARA KEFUNGSIAN FAMILI DAN ALEXITHYMIA
DENGAN KECERDASAN EMOSI DALAM KALANGAN REMAJA DI
TEHRAN, IRAN**

Oleh

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Pemahaman tentang potensi pengaruh ke atas kecerdasan emosi adalah berfaedah dan penting. Sekiranya beberapa faktor didapati mempengaruhi kecerdasan emosi, maka individu-individu boleh mencari jalan untuk meningkatkan kecerdasan emosi dan kejayaan sepanjang hayat mereka. Di Iran, walaubagaimana pun, kajian tentang hubungan antara kefungsiian famili dan alexithymia dengan kecerdasan emosi telah kurang mendapat perhatian. Dengan demikian, kajian yang ada ini adalah perlu dan penting. Tujuan utama kajian ini adalah untuk menentukan perhubungan antara kefungsiian famili dan alexithymia dengan kecerdasan emosi dalam kalangan remaja awal di Tehran, Iran.

Seramai 234 remaja (115 lelaki dan 119 perempuan dalam Gred 2 dan 3 di Guidance Schools Tehran) terlibat dalam kajian ini. Mereka dienal pasti dengan menggunakan persampelan persampelan kelompok pelbagai peringkat. Data dikumpul menggunakan soalselidik tadbir-sendiri, termasuk soalselidik tentang latar belakang, *Emotional Intelligence Skill*, Schutte (1998), *Emotional Intelligence Scale*, *Children's Alexithymia Scale Reiffe's* (2006), yang adalah selari dengan soalselidik asal untuk alexithymia (TAS-20), dan *Famili Assessment Device* (FAD), berdasarkan kepada model McMaster.

Hasil kajian ini telah memaparkan kepentingan latar belakang remaja awal dalam mempertingkatkan kecerdasan emosi mereka. Namun, sumbangan kefungsiian famili dalam kecerdasan emosi adalah tidak secara langsung melalui alexithymia. Kedudukan perhubungan antara kefungsiian famili dengan alexithymia (sebagai pengantara) membayangkan bahawa kecerdasan emosi remaja awal boleh diperbaiki sekiranya famili memainkan peranan penting dalam perkembangan emosi awal remaja, dan pendidikan mampu untuk memenuhi tanggungjawab ini secara berkesan.

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I certify that a Thesis Examination Committee has met on 15 March 2016 to conduct the final examination of Fataneh Naghavi on her thesis entitled "Relationships between Family Dysfunction, Alexithymia and Low Emotional Intelligence among Early Adolescents in Tehran, Iran" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Emotional intelligence (EI) is a new concept that is 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. Recently, a behavioural model rose to prominence with Daniel Goleman's 1995 book entitled, "Emotional Intelligence". However, the early Emotional Intelligence theory was originally developed during the 1970's and 80's by the work and writings of psychologists in Harvard, Yale, and New Hampshire universities (Kingsland, 2007). The basic principles of Emotional Intelligence are identifying, understanding, managing, and regulating emotions.

According to Goleman (1995), approximately 20 percent intelligence quotient (IQ) has contributes to the factors that are considered important in determining success. This indicates that 80 percent of the influence in the lead success is uncalculated for intelligence singly. Schutte and her colleagues (1998) believe that other contributing forces are esteemed to include perception, appraisal and expression of emotion. Therefore, these non-intellectual factors could be considered as underlying emotional intelligence (Bar-On, 2000; Goleman, 1995).

Today in Iran, as it is in other countries, absolute recognition focus in man's psychological studies has been replaced by emotion and recognition influence and its role in psychic health and development (Kashani, 2010). In other words, recognizing emotions and feelings is a basis for emotional intelligence. Emotional intelligence was conceptualized to incorporate recognition and emotion or intellectual emotion (Goleman, 1996). Sanaei (2000) pointed that although it seems that psychological systems have negatively looked into emotions, attention to emotions and feelings can be regarded as the core and also basis of psychology, and that one can look for mental disturbances that root in emotional perturbations like fear, anxiety, depression and alexithymia.

Most researchers, if not all, who have studied the aspect of emotional intelligence in early adolescence have the same and collective opinion that family has an insightful effect on early adolescence's acquisition of these emotional skills (Arem, Tella & Tella, 2006; Giammattei, 2006; Gottman, 1997). Nonetheless, very limited research has been done to study the influences of the number of siblings, income and gender in this regard, while some others have attempted to assess the effects of only mothers' or fathers' education status unconnectedly (Ozabaci, 2006; Katyal & Awasthi, 2005; Stover, 2003; Rhea & Luther, 2001; Goleman, 1995). Thus, this study continues to investigate the influence of other factors and aspects of family environment on early adolescents' low emotional intelligence comprehensively.

In a research conducted by Baumrind (1993), it was shown that the major factors that are involved during the time of maturation of early adolescents are family functioning and socialization on their subsequent emotional expression. Moreover, the living environment of the families can have very crucial effects on early adolescents (Grolnick & Slowiaczek, 1994). To be more specific, the sources of the family environment highly affect the early adolescents during the time they are getting life experiences and this will consequently lead to the formation of their emotional intelligence.

On the other hand, family is the consequent or reaction of the whole society and its major obvious role is to transfer values, as well as cultural and credence heritage by word of mouth, maintaining kinship relations, raising and training generations, supplying basic human needs, and creating psychological and emotional balance among the members (Navabinejad, 2009). The family functioning of their children and how they react to their interests and activities, early adolescent's behaviour to one another, emotion and information exchange among them, as well as emotional protection to one another and family members' outside relations may influence early adolescent's emotional intelligence (Giammattei, 2006). Thus, family has the highest effect on individuals and forms their behaviours at any moment. In other words, a behaviour created in relation to other family members is not limited to normal agreeable behaviour. Similarly, family forms abnormal behaviours as well (Sanaei, 2000). Considering the fact that alexithymia is not classified as a mental disorder in the DSM-IV, Schutte, Malouffe, Hall, Haggerty, Cooper Golden and Dornheim (1998) believe that one of the main dimensions of emotional intelligence is emotional regulation and this skill refers to the ability to control the expression of feelings. As Taylor (2000) put it in this way, emotional regulation is directly related to emotional expression, and that is why alexithymic people cannot express his own feelings.

Clinically, alexithymia has been related to post-traumatic stress, panic disorder, depression, eating disorders, substance abuse, dysphoria, and it also affects intolerance (Pollak, 2008). Parker, Taylor and Bagby (1998) demonstrated that individuals with alexithymia have a limited ability to think about and use emotions as a way of dealing with stressful encounters. In fact, alexithymia is a dimensional personality characteristic that varies in severity from one person to another, and thus, family as the first circumstance can create these characters. Crittenden (1994) argued that alexithymia might be caused by a dysfunction in the family environment, particularly if this was experienced during critical periods of emotional development in the first few years of life. Children's affective expressions have been shown to relate to the amount of information, level of intensity, and types of emotions shared in their families. Children also learn what to feel and how to express their feelings in their families. Taylor, Bagby, and Parker (1997) suggested that when affect is constricted in the family, children tend to display constricted affect as well. Children from families that are rated to be highly expressive show higher levels of unrestricted expressiveness, express more negative affect, and communicate better non-verbally than children from low-expressive families.

According Navabinejad (2000), the role of families' performance in all individual's behaviours, personality, and development of his different talents is important.

Behavioural sciences researchers call a suitable environment an orchard and an unsuitable environment, a burial ground of talents. A considerable amount of studies have produced findings to support the proposition that family acts a vital function in the course and development of emotional intelligence (Ozabaci, 2006; Suninder & Dhillon, 2006; Alegre & Benson, 2005). Similarly, Navabinejad (2009) demonstrates that early adolescent's situations in the family, such as their gender, number, birth order, relation with their age group or other relatives, as well as cultural and economic factors, influence their personality formation.

Consequently, it is essential to research the fundamental factors affecting early adolescents' low emotional intelligence, particularly the link between family dysfunctioning and alexithymia in the context of Iran. The findings of this research will guide psychologists and family policymakers to plan government policies and programmes that promote emotional intelligence of early adolescents. This research will also be of benefit to all family members to understand the importance roles of emotional intelligence and prevent of alexithymia between their communications. This section will explain the attempts made to elaborate the proposal of the programme and the rationale for conducting this study. The main sections of this particular chapter include overview of the topic, statement of the problem, research questions, significance of the study, research objectives, research hypothesis, conceptual and operational definitions, as well as conceptual framework and limitations of the study.

1.2 Statement of the Problem

There are a growing number of early adolescents in Iran. Nearly 50 percent of Iran's populations are adolescents (Mohammade, 2009). Similarly, there are an increasing number of early adolescents in Iran, and a majority of whom have high intelligence quotient IQ (Javidan, 2010). On the other hand, record of a research on intelligence reveals that individual achievements in a person's life and work depend not only on his IQ, but also on other personal and social factors. Specialists and the public believe that the concept of incorporated intelligence stems from cognitive, social, and emotional factors (Khosravi, 2008; Saarni, 1999). In contrast, Mirza (2009) found that based on Bar-On score scale of emotional intelligence Iranian children's emotional intelligence were below the average standard ranges (90-110), it is indicated that Iranian children's emotional intelligence need to be improved and developed. Similarly, Giammattei (2006) found that 46% of the guidance school students in Tehran, Iran were below the average standard range of emotional intelligence. In addition, Bar-On (1997) pointed out that emotional intelligence skills are teachable, learnable, and developable; this progress is increasable through enhanced pro-social performance in early adolescence, and children are still in their infancy stage in the majority parts of the world in terms of self-conception, as well as appraisal and self-regulation skills.

In new decades, researchers have begun to identify family functioning that plays a role in the social lives of their early adolescent (Ozabaci, 2006; Taha, Rozumah, Mazlan, Yacob, Hamdan & Hussin, 2005; Manuel, 2002; Rosenthal, Lambon & Stanberg, 2001) and the factors influencing it (Stover, 2003; Palmer, Donaldson & Stough, 2002; Brody & Hall, 2000; Bar-On, 1997; Goleman, 1996). Furthermore, the results of research on the benefit of emotional intelligence have shown that higher emotional

intelligence scores in adults correlate with better quality relationship, enhanced academic performance and achievement, marital satisfaction, and increased stress tolerance in the workplace, along with high salary and lower emotional intelligence scores in adults associated with drug use, alcohol use, as well as marital conflict and fighting. In children, higher emotional intelligence scores are associated with better adaptability, leadership and study skills, while lower emotional intelligence scores in children correlate with alexithymia, more aggression, anxiety, hyperactivity and conduct problem (Brackett, Rivers & Salovey, 2011; Reyes *et al.*, 2010; Mayer, Salovey & Caruso, 2008; Barchard, 2003; Parker, Taylor & Bagby, 2001). Therefore, due to the lack of research on family dysfunctioning, alexithymia and their influences on early adolescents' low emotional intelligence in Iran, this has created a gap in the body of knowledge and there is a great need for research that explores on the factors influencing early adolescent's low emotional intelligence.

According to social cognitive theory also, in a study by Stover (2003), the role of emotion in early adolescents' social performance is presented as well as family influences on these skills. Furthermore, early adolescents learn to express, understand, manage and control their emotions when interacting with their family, siblings, and peers (Bar-On, Parker, 2006). In contrast, the term alexithymia is an antonym to emotional expression. Inspire of the fact that alexithymia is not that much known in the media, the construct of alexithymia was suggested around 30 years ago. Alexithymia is a personality character that is shown through difficulties in describing feelings and identifying. Furthermore, in this personality character the degree of severity differs among individuals (Taylor, Bagby & Parker, 1997).

Besharat (2010) reported that 27% of the guidance school students in Iran were at mild and high levels of alexithymia. Some researchers have demonstrated that these deficits stem from maladaptive early life experiences (Bandura, 1986). The childhood family environment can be associated with children's emotional expressiveness as it is within the family that children first learn messages of emotional expressivity. Thus, it is important to consider how emotional expressiveness in the family environment can lead to deficits in emotion regulation. Emotion regulation refers to the processes by which individuals influence the emotions they have (Gross, 1998). Alexithymia is developed through negative reacting to children's emotional expression by their parents, or family system disorganization. In addition, when variables such as family dysfunction or a high degree of negative expressed emotion within the family environment exists, low emotional intelligence is more likely to be an outcome (Caryanne, 2007).

Furthermore, with respect to the current context of Iran, the society is changing from a traditional to a modern society. In this situation, families are facing different and more challenging roles and responsibilities as compared to those in the past. With their increased level of knowledge and growing mobility, they have become more participative in parenting, which could lead them to have more sensitivity to developing their children's emotional, personality, social, etc. However, they may lack the knowledge of how to go about it (Javidan, 2010). This has created a gap in the body of knowledge, for this and for many other reasons stated earlier on, the current study investigated on the relationship between family dysfunctioning, alexithymia and

low emotional intelligence of early adolescents. Although a body of relevant research literature is available, it is crucial to highlight that the findings of such research studies which investigated the effects of family dysfunctioning on early adolescents' low emotional intelligence were derived mainly from Western-based samples that are socially and culturally different from the Iranian sample.

In addition, the emotional intelligence structure is a concept with little empirical research, particularly in relation to the link between family circumstance and personality characters and with respect to gender, number of sibling, family income, and family educational status of early adolescents (searching through databases: Ebsco, Scopus, Proquest dissertations and theses), and existing research indicated that studies have generally looked at the direct relationships between family dysfunctioning, alexithymia with early adolescents' outcome (Ozabaci, 2006; Parker, Taylor & Bagby, 2001) but largely ignored the mediating and moderating or indirect influences of family dysfunctioning, alexithymia and background of early adolescents on these relationships. Hence, another contribution of this study is examining the mediating and moderating effects of alexithymia and early adolescents' background on the relationships between family dysfunctioning and early adolescents' low emotional intelligence. Besides that, it is necessary to further scrutinizing the specific conditions under which these moderating effects exist. For this reason, examining these interactions is another important contribution of this research.

Based on the statement of the problem, several questions were formulated and these will be elaborated in the subsequent sub-sections.

1.3 Research Questions

This study is an attempt to envisage the relationship between family dysfunctioning, alexithymia and low emotional intelligence among Iranian early adolescents. For this, the current study addressed the following research questions:

- 1) What are the personal (gender) and family (number of siblings, family income, mother's education status and father's education status) characteristics of early adolescents?
- 2) What are the levels of family dysfunctioning, alexithymia and low emotional intelligence of early adolescents?
- 3) What are the nature of the relationships between the number of siblings, family income, mother's education status, father's education status, family dysfunctioning, alexithymia and low emotional intelligence of early adolescents?
- 4) Are there any differences in emotional intelligence between male and female early adolescents?

- 5) What are the unique predictors of emotional intelligence of early adolescents?
- 6) Does alexithymia mediate the relationship between family dysfunctioning and low emotional intelligence of early adolescents?
- 7) Does respondents' background (gender, number of siblings, family income, mother's education status and father's education status) moderate the relationship between family dysfunctioning and low emotional intelligence of early adolescents?

1.4 Significance of the Study

In the adolescence period, feelings and emotions conduct individuals in the course of life; therefore, the adolescents' conflict between each other and their parents and their tendencies to the outside of home can pave the way for social damage. In other words, if the family fulfils its roles and tasks correctly and enjoys required efficiency, it can protect its members against external damages (Scharfe, 2004). On the other hand, emotional intelligence can help adolescents to identify emotions and shocks so that they correctly appraise, understand, express, and use emotions in their thinking and practising social behaviours. Therefore, emotional intelligence is a protecting factor against social damages (Brackett, Mayer, & Warner, 2004; Trinidad, Unger, Chou & Johnson, 2004; Palmer, Donaldson, & Stough, 2002; Goleman, 1996). Since family dysfunctioning has been studied with different factors like psychic disorders, depression, and social popularity, it seems the necessity of a research, addressing the role of family dysfunctioning in early adolescence's low emotional intelligence and alexithymia, is very important. Through such research, the different aspects of family dysfunctioning associated with low emotional intelligence are detected and the ground for continuous studies in this respect is provided.

In addition, research on emotional intelligence has become an interesting topic because of the many advantages of emotional intelligence. The advantages of emotional intelligence in terms of individual and societies achievement are classified into various dimensions of educational, well-being, psychological, as well as occupational and life. Individuals' emotional intelligence can lead to having a strong personal interaction and appraising other's feelings and interpersonal ability (Goleman, 1995; Salovey & Mayer, 1990). Moreover, a better understanding of emotional intelligence in the early adolescence could improve our knowledge of its development for the duration of lifespan.

Different studies have shown the role of emotional intelligence in various fields such as academic achievements, and life satisfaction (Dehyadegary, 2012; Ozbaci, 2006). The results of this study provides helpful insights for psychologists and policy makers (especially children and adolescent development psychologists), consultants, family psychotherapists, teachers, and parents for good decision making and a better understanding of early adolescence so as to assist them in developing their pro-social performance. These people, knowing about family dysfunctioning and low emotional intelligence and their relations in helping early adolescents and preventing them from

emotional problems and negative personal characters (e.g. alexithymia) can operate better, especially considering the fact that emotional intelligence follows learning. Educational centres, which are second to the family in children and adolescents' time spending, can take these problems into consideration by identifying family dysfunctioning related to low emotional intelligence and alexithymia so as to create and educate such constructive behavioural models.

As noted earlier, this study may contribute to scientific knowledge and provide information for developing social change, and increase knowledge about the association among family, alexithymia and emotional intelligence of early adolescents. By adding to the existing body of knowledge, this information could provide rational for further research. In addition, knowledge from this study could also support the need for improving methods of assessment, prevention and involvement through professional application. Among areas that could be affected include preventive and treatment programmes regarding alexithymia and individual interaction, all the way through increasing the emphasis on family dysfunctioning, alexithymia and low emotional intelligence.

Additionally, this study could help parents, family and care givers to identify their key roles in family dysfunctioning which makes alexithymia or decrease emotional intelligence among their early adolescents difficult and hazardous to the ongoing family-early adolescent relationships. Thus, it is apparent that family plays such a key role in the development of early adolescents. Even a brief training for the family of their early adolescents can help them to respond to them in a more effective way (Eisen, Engler & Geyer, 1998). Other than that, families can be taught how to interact with their early adolescents more sensitively, affectionately and responsively in their interpersonal relationships. Therefore, all the findings from this research study will provide guidance in the family functioning.

Consequently, considering the potential influences on emotional intelligence is useful and vital. If numerous factors are found to have influenced emotional intelligence, individuals can then find ways to enhance emotional intelligence and subsequent lifelong achievement. This process is undoubtedly one of the important ways that can lead to individual and social development. For that reason, and with regard to the above discussion, emotional intelligence and the numerous factors linked to early adolescent's emotional intelligence are important aspects which should be taken into consideration in current research.

1.5 Research Objectives

The general objective of this study was to determine the relationships between family dysfunctioning, alexithymia and low emotional intelligence.

The specific objectives are as follows:

- 1) To describe personal (gender) and family (number of siblings, family income, mother's education status, father's education status) characteristics of the respondents.
- 2) To describe the respondents' scores on the family dysfunctioning, alexithymia, and low emotional intelligence.
- 3) To identify whether there is relationship between numbers of siblings, family income, mother's education status, father's education status, family dysfunctioning, alexithymia, and low emotional intelligence of the respondents.
- 4) To examine the difference in emotional intelligence between the male and female respondents.
- 5) To determine the unique predictors of emotional intelligence among the respondents.
- 6) To determine the mediating effect of alexithymia on the relationship between family dysfunctioning and low emotional intelligence.
- 7) To determine the moderating effect of the respondents' background (gender, number of siblings, family income, mother's education status and father's education status) on the relationship between family dysfunctioning and low emotional intelligence.

1.6 Research Hypotheses

The following hypotheses were postulated in the line with the specific objectives 3, 4, 5, 6, and 7 in the current research:

Objective 3: To identify whether there is relationship between numbers of siblings, family income, mother's education status, father's education status, family dysfunctioning, alexithymia, and low emotional intelligence of the respondents.

- H_{a1}: Respondents who have less number of siblings have higher level of emotional intelligence.
- H_{a2}: Respondents from families with higher income have higher level of emotional intelligence.
- H_{a3}: Respondents whose mothers have higher level of education have higher level of emotional intelligence.
- H_{a4}: Respondents whose fathers have higher level of education have higher level of emotional intelligence.
- H_{a5}: Respondents with lower level of alexithymia have higher level of emotional intelligence.
- H_{a6}: Respondents with lower level of family dysfunctioning have higher level of emotional intelligence.
- H_{a7}: Respondents with higher level of family dysfunctioning have higher level of alexithymia.

Objective 4: To examine the difference in emotional intelligence between the male and female early adolescents.

H_a8: Female respondents have higher emotional intelligence compared to male respondents.

Objective 5: To determine the unique predictors of emotional intelligence.

H_a9: The regression coefficients for all the selected independent variables (family dysfunctioning, alexithymia, gender, number of siblings, family income, father's level of education, mother's level of education) are significant when regressed against early adolescents' low emotional intelligence.

Objective 6: To determine the mediating effect of alexithymia on the relationship between family dysfunctioning and low emotional intelligence of early adolescents.

H_a10: Alexithymia mediates the relationship between family dysfunctioning and low emotional intelligence among the respondents.

Objective 7: To determine the moderating effect of the respondents' background (gender, number of siblings, family income, mother's education status and father's education status) on the relationship between family dysfunctioning and low emotional intelligence.

H_a11: Early adolescent's gender moderates the relationship between family dysfunctioning and low emotional intelligence of the respondents. It is expected that the female early adolescents will indicate higher levels of emotional intelligence than the males.

H_a12: Number of siblings moderates the relationship between family dysfunctioning and low emotional intelligence among respondents. It is expected that lesser number of siblings is associated with increased levels of emotional intelligence.

H_a13: Family income moderates the relationship between family dysfunctioning and low emotional intelligence among the respondents. It is expected that higher family income is associated with increased levels of emotional intelligence.

H_a14: Mother's education status moderates the relationship between family dysfunctioning and low emotional intelligence among the respondents. It is expected that higher mother's education is associated with increased levels of emotional intelligence.

H_a15: Father's education status moderates the relationship between family dysfunctioning and low emotional intelligence among the respondents. It is expected that higher father's education is associated with increased levels of emotional intelligence.

1.7 Conceptual and Operational Definitions

1.7.1 Emotional Intelligence

The conceptual definition of emotional intelligence is defined as the ability to understand feelings in the self and others, and to use these feelings as informational guides for thinking and action (Salovey & Mayer, 1990).

Bar-On (1997) defines emotional intelligence as the emotional, personal, social, and survival dimensions of intelligence, which are often more important for daily functioning than the more cognitive aspects of intelligence. Martinez-Pons (1997) stated that emotional intelligence refers to the skill to monitor one's own and others' emotions, to discriminate between them, and to utilize the information to guide one's thinking.

Based on the operational definition in this research, emotional intelligence refers to the respondents' scores on the three factors perception of Emotional Intelligence Self-measuring Scale, which was adapted from Schutte (1998). These include emotional conception and appraisal, emotion regulation, and emotion utilization. Higher scores indicate a higher level of emotional intelligence, while lower scores reflect a lower emotional intelligence.

1.7.2 Alexithymia

The conceptual definition of alexithymia considers it as a personality trait that places individuals at risk of other medical and psychiatric disorders while reducing the likelihood that these individuals will respond to conventional treatments for other conditions (Havilland, Warren & Riggs, 2000). However, alexithymia is not classified as a mental disorder in the DSM-IV. It is a dimensional personality trait that varies in severity from one person to another. A person's alexithymia score can be measured using questionnaires, such as the Toronto Alexithymia Scale (TAS-20), Rieffe's Children's Alexithymia scale (2006) and the Bermond-Vorst Alexithymia Questionnaire (Vorst & Bermond, 2001) or the Observer Alexithymia Scale (Havilland *et al.*, 2000).

Based on the definition given by Taylor, Parker and Bagby (1990), in the context of this study, alexithymia is defined as:

1. The difficulty in identifying feelings and distinguishing between these feelings and the bodily sensations of emotional arousal.
2. The difficulty in describing feelings to other people.
3. Constricted imaginably processes, as evidenced by a paucity of fantasies.
4. A stimulus-bound, externally oriented cognitive style.

Based on the operational definition indicated earlier on, alexithymia, in the context of this research, refers to the respondents' scores on the three factors of the Rieffe's Children's Alexithymia scale (2006) that is consistent with the original adult questionnaire for alexithymia Toronto Alexithymia Scale (TAS-20) adapted from Taylor (1984). The level of alexithymia is defined as the three factor scores obtained on the Alexithymia Questionnaire for Children. These include the difficulty in identifying feelings, difficulty in describing feelings, and externally-oriented thinking. The three factor scores make up the whole score which may range from 20 to 100 and are obtained by summing the 20 item scores. It is important to note that the higher score on the Rieffe's Children's Alexithymia scale (2006) is the higher level of alexithymia.

1.7.3 Early Adolescence

The conceptual definition of early adolescence refers to the transitional stage of development between childhood and adulthood, and it represents the period of time during which a person experiences a variety of biological changes and encounters a number of emotional issues. The ages which are considered to be parts of adolescence vary by culture, and these range from pre-teens to 19 years. According to the World Health Organization (WHO), adolescence covers the period of life between 10 and 20 years of age. Adolescence is often divided by psychologists into three distinct phases, namely, early, mid, and late adolescence. Early adolescence is distinguished by pubertal maturation alongside the young person's genuine beginnings of separation from early objectives (Kroger, 1993).

Based on the operational definition in this study, early adolescent refers to a male or female pupil, who is between the ages of 12 to 15 years. Meanwhile, early adolescence is usually considered to be 11 to 15 years of age (Sherrod, Haggerty & Featherman, 1993).

1.7.4 Family Dysfunctioning

The conceptual definition of family dysfunctioning refers to poor family functioning in a set of tasks, roles, and expectations members of a family have for one another (Najarian, 1995). Patterson (1995) stated that family functioning refers to performing the functions of the family and the pattern of the relationships connecting members of a family system. It is important to note that there are different patterns of relationships, and these are patterns for showing affection, and for problem solving in daily tasks.

Based on the operational definition in this study, family functioning refers to the respondents' scores on the FAD (Family Assessment Device) scale adapted from McMaster's model by Epstein, Baldwin, and Bishop (1983).

1.8 Theoretical Framework

Family with multi-functional aspects serves as a fundamental dimension in the development of early adolescents' emotional intelligence. In a family with high functioning, members inform one another of their thoughts and feelings through interaction and communication. Communication is one of the main family functions that improves early adolescents' emotional intelligence. In fact, effective communication is an important requirement of any personal relationship. The theoretical framework of this study is organized in two sections. (i) The first section highlights the importance of social cognitive theory in the emotional processing of early adolescents' emotional intelligence improvement (and vice versa) that can cause alexithymia. In addition, social cognitive theory can be related of the role of family-child relationships in affecting the development and in the acquisition of self-regulatory capacities which are basic dimensions of emotional intelligence. It is needed because of the important concepts in the social cognitive theory, which are interaction, reciprocal process through person, environment and behaviour. According to social cognitive theory, family as the first unit with communication functioning can develop early adolescence's lives. Whereas social cognitive theory refers to learning by observing others, in which the environment, behaviour, and personal (e.g. affective, biological and cognitive) are the key factors influencing the development of early adolescent's emotional intelligence. (ii) The second section includes the emotional intelligence theory. This particular section is an attempt to reveal the effects of several factors influencing emotional intelligence.

1.8.1 Social Cognitive Theory

Social cognitive theory is a learning theory based on the ideas that people learn by watching what others do and that human thought processes are central to understanding personality. People learn by observing others, with the environment, personal, and behaviour as the major factors influencing their development. These three factors are not static or independent, but rather, they are all reciprocal. This is the foundation of Bandura's (1986) conception of reciprocal determinism, i.e., the view that (a) personal factors in the form of cognition affect emotion, and biological events, (b) behaviour and (c) environmental influences (such as family and socio-economic situation, sibling relations in family) create interactions that result in a set reciprocity (Pajares, 2002). Figure 1.1 indicates the Conceptual Model of the Social Cognitive theory.

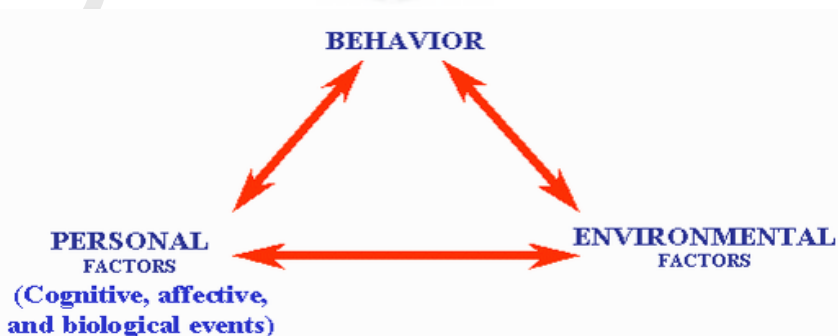


Figure 1.1: The Conceptual Model of the Social Cognitive theory (Source: Pajares, 2002).

On the other hand, several theories have hypothesized that personal characters, whether positive or negative, stem from parent-child interactions in early life experiences, and are associated with family functioning (Belsky, 1984; Baumrid, 1967). Emotional expressiveness within the family is an important component of family functioning, and families appear to be important contexts in which children learn about emotions, while healthy parental expressiveness is also related to healthy child functioning (Cassidy, Parke, Butkovsky, & Braungart, 1992). According to Lumley, Mader, Gramzow and Papineau (1996), excessive parent's attention to a child's bodily rather than emotional needs, and family's emotional unavailability or inconsistency has been posited as leading to disturbed effect representation and self-regulation of alexithymia (McElwain, Halberstadt, & Volling, 2007; Taylor, 2000). These researchers found young adults' reports of diminished family expressiveness that specifically limit positive communication to be related to their own affective identification and communication deficits. Based on alexithymia's pathology, some researchers (Naghavi, & Ma'rof, 2012^b, Taylor, 2000) have demonstrated that pathological parenting hypothesized that early adolescent's level of alexithymia is positively related to the levels of general pathology in their families and they are able to anticipate and interact with others. Their ability to understand and deal with the subtleties of intimate relationships is very poor. In fact, alexithymia is an antonym to emotional expression which is used to describe the inability to express and regulate emotions. In general, family dysfunctioning linked with alexithymia (Lumley *et al.*, 1996). According to Caryanne (2007), the other main factors that create alexithymic tendencies in children and lack of emotional intelligence in them include not expressing positive emotions by parents, negative reaction to children's emotion, and not discussing emotions with children on the side of parents. Therefore, considering the social cognitive theory, the way family members communicate with each other highly affect their personality character of early adolescents.

Furthermore, social cognitive theory is at the base of children's social understanding, and thus, in all cultures, family is the first of social unit and the centre of the individual's identity formation. Early adolescent in family environment learn to express, comprehend, understand, and regulate emotions by exchanging their emotions with their parents and coevals. Some of them take control of their own and others' emotions more skilfully due to the huge differences in the individual abilities and their social world. However, some children lack adequate skills to interpret emotions for their own achievements in the social world (Scharfe, 2000). Trinidad and his colleague (2008) believe that girls develop verbal skills earlier than boys, i.e. they are more skilled at articulating their feelings and have grater expertise in the use of words.

Different natures of family behaviours reflected in family functioning yield different outcomes in children through the processes of modelling and reinforcement (Bandura, 1986). In a family with high functioning, members inform one another of their thoughts and feelings in delicate ways. They express their interests and concerns and talk about important issues. They can talk with other members about themselves and their life; they know that they are listened to and understood. Communicative models in a family have effects on the models which will be applied by children in their future behaviours. A good understanding of emotions may be acquired through parent-child interaction and/or parent modelling of expressivity, which is important for successful social interactions. Communication is not limited to words; it includes listening,

silence, looks exchange, facial state, poses, touching, body state, and other non-vocal symbols and codes used to send and receive meanings of emotional (Nowruzi, 1998). Family members discuss personal fears, stresses, criticisms, complaints, and other feelings with each other rather than censoring such topics from conversation. Such families have the adults clarifying ambiguous situations to children, explaining their own expectations or feelings in a way that the children can recognize, and they encourage their children to explain their own fears and feelings and to have a voice in family decision making and problem solving. This type of family communications has been shown to promote better emotional regulation, coping skills and cognitive ability (Conger & Conger, 2002; Belsky & Haan, 2015). Thus, communication in family is as a key factor to improve the emotional intelligence of early adolescents.

In addition, family functioning researchers suggest that family environment and factors such as family income, number of children, and level of education have significant influences on developing empathy, identification of emotions and emotional intelligence (Saarni, 1999). For example, parents with low education and non-professional jobs pay less attention to their child's emotional needs and even respect them which can lead to negative outcomes. Therefore, children of better and healthier family environment may also be provided with the opportunities to increase their understanding of the emotional reactions that their own behaviours elicit from other individuals. It can conclude that parents with higher and healthier functioning have children who exhibit high emotional competent and low alexithymia.

In summary, social cognitive theory, environmental factors (e.g. family dys/functioning, family income and number of siblings and family level of education), personal factors [e.g. biological (gender) and affective (alexithymia)] do not have equal influences on early adolescent development. Additionally, different nature of environmental factors and family behaviours reflected on early adolescent characters yield different outcomes in children through the processes of modelling and reinforcement (Bandura, 1986). The environment provides models for behaviour. Observational learning simply occurs when a child is watching actions of other person and the reinforcements the person received (Bandura, 1997). For example, emotional coping ability and the strategy used by a child to deal with emotional stimuli leads to the understanding of how to manage emotional stress within the family environment through the process of modeling. Bandura (1997) suggested that much of children's observational learning takes place when they observe the actions of other individuals as well as the reinforcements that individuals receive.

1.8.2 Emotional Intelligence Theory

Emotional intelligence is conceptualized as comprising of five primary domains, which include knowing one's emotions, managing one's emotions, recognizing emotions in others, handling relationships, and motivating oneself (Goleman, 1995). The emotional intelligence theory was introduced by Goleman (1995). These domains, as the main factors in emotional intelligence, can support this area of the current study. The framework of emotional intelligence was used to bring in an organized whole, the five related components comprising the abilities related to the understanding, managing, and using emotions.

The first of these domains, i.e. knowing one's own emotions, involves the ability to accurately recognize, identify, and label feeling and emotions as they arise in oneself. It entails removing oneself from the experience of an emotion that is enough to develop a self-awareness of what one is feeling or one's mood. The second domain of emotional intelligence, i.e. managing one's emotions, is built largely on self-awareness, and it involves the ability to regulate emotions so that they are experienced appropriately. Individuals who are skilful at intensity and duration of feelings are able to cope more effectively with emotionally-laden situations in their lives. Similarly, the third domain of emotional intelligence is also built on self-awareness. Individuals who are deficient in identifying their own emotions are also necessarily deficient in knowing what others are feeling. The fourth of emotional intelligence comprises the ability to appropriately and effectively handle interpersonal relationships, a skill more generally known as social competence. It is important to note that a core aspect of social competence involves the skill of managing emotions in others, and is contingent on having developed the ability to accurately identify how others are feeling and the ability to exert self-control over one's own emotions. The fifth domain of emotional intelligence is unique as it emphasizes on the utilization of emotions, as opposed to the appraisal, expression, or regulation of emotions which are emphasized by the other four domains (Goleman, 1995). Mayer and Salovey (1997) conceptualized this domain as comprising four independent abilities, including flexible planning, creative thinking, mood redirected attention, and motivation. They further proposed that emotionally intelligent individuals are able to adaptively utilize and modify their emotional states to solve problems more effectively and achieve goals.

Regarding the link between social cognitive theory and emotional intelligence theory, with respect to personal, environmental, or behavioural factors of early adolescents who learn to express, comprehend, understand, managing one's emotions, recognizing emotions in other, regulate emotions and utilize emotions by exchanging their emotions with their parents and siblings. In addition, the role of families' performance in all individual's behaviours, normal and abnormal behaviours, personality, and development of their different talents is important. Family functioning of early adolescents and how they react to their interests and activities, early adolescents' behaviour to one another, emotion and information exchange among them, emotional protection for one another, and the family members' relations can influence the early adolescents' emotional intelligence. Some scholars have documented a positive relationship between higher education levels in family and emotional intelligence (Katyul & Awasthi, 2006). For example, Gottman (1997) entitles the parents who relate to their children's feelings as "Emotion Coaches" and asserts that parents' education is important in emotional intelligence development. Furthermore, the backgrounds of the child regarded in this study were gender, family income and number of siblings. Due to the fact that girls develop verbal skills earlier than boys, it means that they have more skill at articulating their feelings and have greater ability of expression. Hence, girls knew more on the emotional feelings; therefore this makes them to speak out about their emotion more often than the boys do (Fivush *et al.*, 2000). Meanwhile, the household income effect on emotional intelligence may be indirectly related through to family environment. A family with good financial status may have better life satisfaction and healthy family environment that leads to the development of emotional skills (Katyul & Awasthi, 2006). This theory can be used to explain how family and respondents' background can effect low emotional intelligence

in early adolescent also, how negative impact of family functioning can led to Alexithymia.

1.9 Conceptual Framework

This conceptual framework integrates the social cognitive theory and Goleman's (1995) theory on the determinants of early adolescence's emotional intelligence. In particular, it outlines the relationships between independent variable of family dayfunctioning with mediator (alexithymia) and the outcome variable of low emotional intelligence amongst early adolescents. Additionally, the moderating role of the backgrounds of early adolescent (gender, number of siblings, family income and family level of education) were also assessed.

The social cognitive theory emphasizes on the role family as a social model in the development of personal characters. Bandura's (1986) conception of reciprocal determinism, i.e., the view that (a) personal factors in the form of cognition, affect, emotion, and biological events, (b) behaviour, and (c) environmental influences (such as family and socio-economic situation), sibling relations in a family create interactions that result in a set reciprocity (Naghavi, & Ma'rof, 2012^a; Pajares, 2002). Early adolescent in family environment learn to express, comprehend, understand, and regulate emotions by exchanging their emotions with their parents and coevals. Some of them take control of their own and others' emotions more skilfully due to the big differences in the individual abilities and their social world. However, some children lack the adequate skills to interpret emotions for their own achievement in the social world (Scharfe, 2000). Based on the alexithymia's pathology, Halberstadt (1986) concluded that the style of expression and skill in communication are influenced by the emotional expressiveness of the family environment. It is hypothesized that limited expression and communication skills in the family environment are associated with alexithymic tendencies in early adolescents or the child's potential deficit in emotional intelligence.

According to the relevant literature reviewed, early adolescents learn to express, understand, and regulate their emotions in their interactions with their parents and siblings. Furthermore, it indicates that families are strong shapers of early adolescence's performance and their emotion is an important aspect of family functioning (Stover, 2003). Therefore, the conceptual framework illustrates the relationship between family as emotional coaches and early adolescents' emotional intelligence and their social behaviours.

As for the number of siblings, gender, family income and family education status in relation to emotional intelligence, there are many assumptions about them. Some existing research indicated slight but significant relationships between emotional intelligence and number of siblings, family income, and family education status. Meanwhile, Hughes and Carolyn (2002) pointed that our first parents during childhood are our siblings. Our relationships with them, even during childhood, include components which will later become significant in our relationships as adults. There

are several notable differences between the male and female adolescents (Elias *et al.*, 2007; Katyal & Awasthi, 2005; Goleman, 1995). However, statistically significant gender differences do exist for several factors natured by emotional intelligence and girls were found to have higher emotional intelligence than boys (Katyal & Awasthi, 2005). Goleman (1995) believes that a particular sub-component of emotional intelligence in which females score superior than male consists of empathy, which refers to the capacity to be attentive of, to realize and to appreciate the feelings of others. In addition, Blau (1999) believes that early adolescence of lower-class families are more likely to have low emotional intelligence and social performance and do poorly on standardized tests as compared to those early adolescents in the middle- and upper-class families. Following the natural relationships between the variables, the way a family interacts with the children is influenced by multiple factors that exist within the context of the family. The present study identified that early adolescent's backgrounds (gender, number of siblings, family income and family level of education) moderate the relations between family dysfunctioning and early adolescent's outcomes (low emotional intelligence). Based on the theoretical background and also the literature review, the conceptual framework of the present study is shown in Figure 1.2 below.

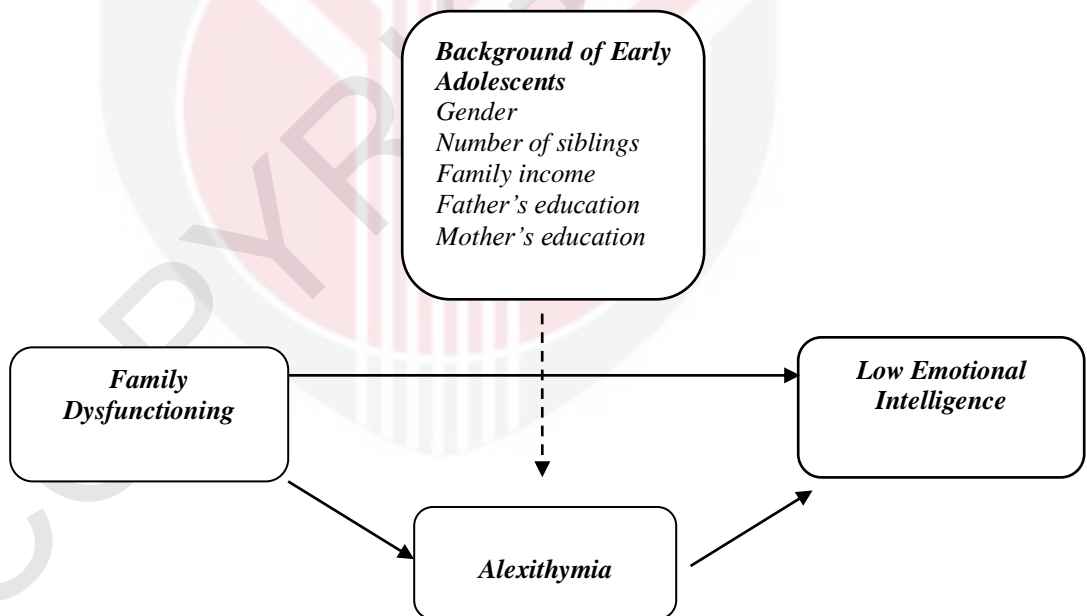


Figure 1.2: The Conceptual Framework for the Study of the Relationships between Family Dysfunctioning, Alexithymia, and Low Emotional Intelligence among Early Adolescents in Tehran, Iran.

1.10 Limitations of the Study

The limitations of this study can be categorized into two primary areas: (a) specific characteristics of the population and location, and potential response biases; and (b) instrument limitations.

Considering that this study was conducted among the respondents from the age group of 12 to 15 year old, caution had to be ensured when generalizing it to other age groups. Furthermore, the selected sample, which was derived from Tehran, may not be good enough to sample the society and this may affect on the results. Meanwhile, disregarding the subcultures and selecting a statistical universe from Tehran city have probably influenced the study's external admissibility as well. There are several factors that cannot be controlled, such as socioeconomic, genetic, personal characteristics, peers, media, etc. In addition, questionnaires that are too long may decrease the accuracy of answers. Furthermore, the intended meaning of some questions may be misunderstood due to the differences in their cultures, while ethnicity diversity (e.g., Turkish, Kordish, Lor) in this study is an issue as well.

Furthermore, the limitations of this study may also be extended to the self-report measures. Future studies should be conducted through qualitative methods. Information regarding family dysfunctioning, alexithymia and low emotional intelligence may also be enhanced and accessed through in-depth clinical interviews. Another limitation of the current research is the difficulty level of the Schutte's instrument. Some of the teachers reported that their students had difficulties in answering some of the items and they themselves found the questions conceptually difficult to understand. In particular, the students appeared to be confused by the 5-point Likert scale and kept asking what each number meant. Hence, it is necessary to mention that in the pilot study, no question was found to be difficult to understand. Therefore, the scores obtained might not be an accurate estimation of their emotional intelligence and the sub-factors. In future studies, instruments which are easier to comprehend should be utilized.

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