THE EFFECT OF ANGER MANAGEMENT, INTERPERSONAL COMMUNICATION SKILLS AND STRESS MANAGEMENT TRAINING ON UNIVERSITY STUDENTS' EMOTIONAL INTELLIGENCE

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FACULTY OF EDUCATION
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ABSTRACT

The main topic of this research is how teaching anger management, stress management and interpersonal communication skills affects emotional intelligence of female first year university students of Roodehen Islamic Azad University in Iran. The study population is all first year female students of Roodehen Islamic Azad University. The study was carried out on 120 students who were selected by multi-stage randomized sampling method and were divided into the four groups (three experimental and one group as control, with 30 students in each group). Before carrying out the experimental intervention (presentation of the independent variables), the four groups were given the pre-test using the Emotional Intelligence questionnaire (EQi). Then, the students in experimental groups attended five 2-hour training sessions of anger management, five 2-hour training sessions of stress management five 2-hour training sessions of interpersonal communication techniques respectively. One week after the intervention, the four groups were post-tested again using the EQi. The data were analyzed using Ancova method (analysis of covariance) *t* –test and Mann-Whitney *U* Test. Results of the study indicate that training in anger management, stress management and interpersonal communication skills will lead to increased Emotional Intelligence of female students, compared with the control group.

KESAN LATIHAN PENGURUSAN KEMARAHAN, KEMAHIRAN KOMUNIKASI INTERPERSONAL DAN PENGURUSAN STRES KE ATAS KECERDASAN EMOSI PELAJAR UNIVERSITI

A**BSTRAK**

Topik utama kajian ini adalah bagaimana pengajaran pengurusan kemarahan, pengurusan stres dan kemahiran komunikasi interpersonal mempengaruhi kecerdasan emosi pelajar wanita tahun pertama Roodehen Islamic Azad University di Iran. Populasi kajian adalah semua pelajar wanita tahun pertama di Roodehen Islamic Azad University. Kajian dijalankan ke atas 120 pelajar yang dipilih melalui kaedah *multi-stage randomized sampling* dan dibahagikan kepada empat kumpulan (tiga kumpulan eksperimen dan satu kumpulan kawalan, dengan 30 pelajar dalam setiap kumpulan). Sebelum intervensi eksperimen dijalankan (*presentation of the independent variables*), empat kumpulan tersebut diberi ujian pra menggunakan Emotional Intelligence questionnaire (EQi). Selepas itu, pelajar kumpulan eksperimen masing-masing menjalani latihan lima sesi 2 jam setiap sesi pengurusan kemarahan, lima sesi 2 jam latihan pengurusan stres, lima sesi 2-jam latihan teknik komunikasi interpersonal. Se minggu selepas intervensi berakhir, empat kumpulan tersebut diberi ujian pasca menggunakan EQi. Data dianalisis menggunakan Ancova (*analysis of covariance*) ujian-*t* dan ujian Mann-Whitney *U*. Dapatan kajian menunjukkan bahawa latihan dalam pengurusan kemarahan, pengurusan stres, dan komunikasi interpersonal akan mempertingkatkan kecerdasan emosi (*Emotional Intelligence*) pelajar wanita berbanding dengan kumpulan kawalan.

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CHAPTER 1

INTRODUCTION

Training successful students and providing higher educational levels are among the important purposes of student training in the strategic planning of the twenty-first century, and this has been stressed on more, in recent times. In achieving these objectives, promoting thinking, intellectual abilities, personal qualities and interpersonal skills, or emotional intelligence have been the focus of attention more than before. Emotional intelligence can be developed and strengthened; the university years would be a great opportunity for students to improve their emotional intelligence level. Regarding the differences between the traditional and new teaching methods and their contribution to developing emotional intelligence, Lin, Lee, Hsu, and Lin (2011) stated that emotional intelligence could be achieved through consistent educational efforts.

The transition from high school to academic environment often causes stress for many people (Brooks & DuBois, 1995; Ross, Niebling, & Heckert, 1999). This transition creates issues such as forming new relationships, changing past relationships with family and friends, learning new study habits according to the new learning environment, and acting as an independent and mature individual (e.g., financial and time management). Perhaps the best evidence of students' problem with stressful factors is failure to graduate (Bond & Manser, 2009). Besides, the results of studies have shown that stressors play important roles in the decline of academic performance and also academic probation. Probated students experience more academic stressors (such as educational requirements, learning environment, dormitory and studying environment) compared with non-probated students.

Much research has been carried out on student academic success and the related factors. Recent studies have concentrated on the impact of variables such as previous

school performance in high school or standard measurement of cognitive abilities and determining the predictive power of some variables, such as emotional intelligence in academic achievement (Hansen, Lloyd, & Stough, 2009).

It is assumed that most university students in Iran are adolescents and young adults between the ages of 19-29 years. Being in their late adolescence and early adult stage, and during the transition period to university many problems confront them including physical, social, academic, and emotional adjustment. A major hurdle for the students during this time is in managing emotions, developing autonomy, and developing interpersonal relationship (Chickering & Reisser, 1993).

Specifically, the high rate of stress, aggressive behavior, low quality of interpersonal relations was defined as a psychological process of adapting to coping with, managing their problems, challenges, tasks and requirements of daily life (Halonen & Santrock, 1997). Baker and Siryk (1999) categorized and identified the different types of behavior problems. These behavioral problems among the youth have also been found to be related to a deficit in EI (Zeidner & Olnick-Shmesh, 2010). Research has shown that the majority of university students have low level EI. In the light of research study findings, a few suggestions are forwarded to enhance the emotional intelligence level of students in universities. Activities that incorporate certain soft skills workshops to enhance emotional intelligence, stress management, anger management and communicational ability should be emphasized (Abdi & Sharifi, 2008; Besharat, 2011; Najib Ahmad Marzuki, 2012).

Elements of Emotional Intelligence

Emotional Intelligence (EI) is the ability to correctly identify expressed emotion; the ability to access and/or generate feelings to assist thought; the ability to be aware of emotion and emotional information; and the ability to control emotions in order to

promote emotional and intellectual growth. Emotion evaluation and expression in one's self is specified with two verbal and nonverbal components as well as evaluation in others with side components of nonverbal understanding as sympathy (Mayer, Panter, & Salovey, 2005).

The elements of EI: being aware of our feelings and handling disruptive emotions well, empathizing with how others feel, and being skilful in handling our relationships are crucial abilities for effective living (Goleman, 2001). Furthermore, EQ is also important in the classroom in two major ways. First, emotions have an impact on learning; they influence our ability to process information and to accurately understand what we encounter. For these reasons, it is important for educators to create a positive, emotionally safe classroom environment to ensure optimal learning. Second, learning how to manage feelings and relationships constitutes a kind of "Emotional Intelligence" that enables success (Zins et al., 2004). Howard Gardner's theory of multiple intelligences expands upon this concept. According to Gardner's theory, EI consists of intrapersonal and interpersonal intelligences, which include understanding oneself and others; hence EI is of great importance (Gardner, 1999a) . For students who are low in intrapersonal and interpersonal intelligences, specific behaviors and skills can be taught to help them develop EI.

In preventing aggression, the anger management training program allows students to learn how to categorize their feelings, and how to name and define them, how to show empathy for others' feelings, and how to defend their rights without being aggressive (Caprara, Regalia, & Bandura, 2002); such training also explains that managing aggression is even more important than academic achievement, and should be one of the other important aims of educational corrective interventions.

Effective communication is a technical functioning, while distinguishable intelligence is a strategic ability. It relates to understanding oneself and others,

communicating with others, and adaptation and compatibility levels with our environment. These are all necessary in achieving one's goals (Salovey & Grewal, 2005). Communication plays an important role in students' lives and their achievement of success. Communication effectiveness has long been held to be a success factor for human life in general. Effective communication can prevent homesickness in students (Hall & Chandler, 2007).

Bar-On (2002) lists the interpersonal component as one of the main tenets of EI, while Goleman (2001) stresses the importance of vigilance in his achievement drive and initiative competencies. The ability to read and interpret body language is a central tenet of EQ, reflected in the social awareness branch of Goleman's (2001) Model, and in the interpersonal component of Bar-On's model, and in the emotional understanding branch of the Mayer and Salovey model of EI. Interpersonal communicators who can recognize emotions in themselves and others can better understand the reasons for these emotional responses. This, in turn, leads to better outcomes in negotiations.

Understanding how emotions change is also important as a series of positive and negative emotions are experienced during negotiations. Part of the prevention of potentially unhealthy behavior in students is to strengthen their relationships with others. Integrated exercises can develop the EI of students. Lastly, EI can also benefit community-based correctional efforts directed at students.

Statement Of The Problem

This study is aimed at investigating the effect of training in anger management, stress management, and skills of interpersonal communication in improving first year female university students' Emotional Intelligence.

Many students find that the transition from high school to college or university is a very stressful period (Brooks & DuBois, 1995; Ross et al., 1999). This is in part due to

the many new challenges that students must face in the first month of classes, such as making new relationships, managing their time and budgets and adapting to a new learning environment with often increased academic expectations. Given the increased demand on students during this transition, it is not surprising that many students who begin a postsecondary education will withdraw before they graduate (Gerdes & Mallinckrodt, 1994; Tinto, 2001).

Managing the emotions makes us more conscious of them, thus providing the basis for a good understanding of identification in oneself and the others.

Using anger management, interpersonal communication skills and stress management through training causes EI to increase and this increase brings about a feeling or strengthens the spirit of group collaboration.

In this study the problem to be addressed stemmed from reports that a high rate of stress (Besharat, 2010), aggressive behavior (Zahra Eftekhar Saadi, Mahnaz Mehrabi Zadeh Honarmand, Bahman Najarian, Hasan Ahadi & Parviz Askari, 2012), and low quality of interpersonal relations (Besharat, 2010) were found among university students. It is important, since the behavioral problems among the youth have also been found to be related to a deficit in EI (Nelis, Quoidbach, Mikolajczak,& Hansenne, 2009). Research has shown that the majority of students in universities are having low level EQ. In the light of such research findings, a few suggestions are forwarded to alleviate deficits in the emotional intelligence level of university students. Activities that incorporate certain soft skills workshops to enhance emotional intelligence, stress management, anger management and communicational ability should be emphasized (Abdi & Sharifi, 2008; Besharat, 2011; Najib Ahmad Marzuki, 2012).

Research has shown that people of high EI attain higher scores in empathy, self-review and self-control in different social conditions. The research evidence indicates that perceived aggressive behaviour is associated with low EI (Spada, Nikcevic,

Moneta, & Wells, 2008). Yet few quantitative studies have been done to explicate the relationship between training in Emotional Intelligence and enhanced EI among university students. The current study was developed with the intention of filling the research gap.

Purpose of the Study

The purpose of this study was to investigate the effect of anger management, stress management, and interpersonal communication skills training courses on EI of junior undergraduate female students, aged 20-26 who studied during 2010-2011 at Roodehen University in Iran. This research examined Total EI Scale scores and five Composite Scale scores as measured by the Bar-on EQ-I (Bar-On, 2002) in students participating in the anger, stress, and interprsonal relationship training study. Specifically, the Bar-on EQI was utilized as a pretest and posttest to measure changes in EQI scores.

Research Objectives

The current research is targeted at achieving the following objectives:

1. To determine the effect of skills training in anger management on the students' Emotional Intelligence.
2. To identify the influence of skills training in stress management on the students' Emotional Intelligence.
3. To find out the effects of training in interpersonal communication skills on students' Emotional Intelligence.
4. To identify which training has greater effects on students' Emotional Intelligence.

Research Questions

Based on the research objectives, the current research was designed to answer the following research questions:

1. Does anger management training have an effect on the students' Emotional Intelligence?
2. Does stress management training influence the students' Emotional Intelligence?
3. Does interpersonal communication training affect the students' Emotional Intelligence?
4. Which training has greater effects on students' Emotional Intelligence?

Significance of the Study

The results of this study are important for many reasons. Firstly, the present study will give more credit and respectability to the EI theory and practice of effective relationship, anger management training and stress management learning. With an increase in students' EI there will be a positive effect in their behaviors (Bar-On, 2002).

Secondly, although studies such as the present one may not have overt results in the short term, they do pay off in social emotional learning practices over time. Studies sometimes do not yield immediate benefits and their effect on theories and the techniques only become evident after many years.

Thirdly, regarding the increasing rate of stress, aggressive behavior and loneliness problems in young students and their negative counsequences, the result of the present study will extend the understanding of using learning in anger management, stress management and interpersonal communication skills for students to enhance EI outcomes. Therefore, it is possible that problematic behaviors can be deterred so that individuals and society would benefit. Instructors must recognize the importance of

creating an effective learning environment that supports these constructs to enhance student learning, in order to increase students' ability to transfer learning to successful life performance. This study will provide empirical support for EI. Besides, the faculty can better understand how to create a reflective learning environment in the university to enhance student learning outcomes. The results of this study may also be useful in making recommendations about potential interventions with educational populations in social policy making. It will also support the needs of the families and family development centers by studying the role of education, society and family in Iran. This study addresses the need for the Ministry of Education and higher education, as well as other institutions involved in youth social issues which in some cases are involved in social policy making.

Theoretical Framework

The main topic of this research addressses how teaching anger management, stress management and interpersonal communication skills affects the EQ levels of students. In organizing the content of this study plan, the Bar-On theory of social emotional skills is the main framework of the research. For the training of anger management, stress management and interpersonal communication skills, a specially prepared book was used. The book was written by Fereshteh Motaby and Ladan Fathey (2006a, 2006b, 2006c); it is a life skills Persian book for university students and published by Danzhh in Iran. The Bar-On model includes the additional parameters of stress management, adaptability and impulse control. Before the training book was published, it was tested for one year in which a research group did a pilot study in order to collect and use the comments, complaints, and recommendations made by the participants of the study to improve the book in order to achieve the best results (Ramazan-khani & Sayyari, 1999). There was little data in the existing research that

included the true experimental design and implementation of training interventions that were practical among the first semester university students to statistically improve EI. Corresponding expectations of what level of improvement to anticipate, the justification for the blended approach of using the training models of social learning was used. Skills compact structure (Andrews et al., 1990), skill-based approach (Lipsey, 2003) and modeling role playing (Antonowicz & Ross, 1994) were used.

In order to establish a theoretical framework to view the problem, the proposition for this research was that EI can be measured and improved. As a consequence of the literature review of EI definitions; it was determined that the construct of the research was to define and measure EI by using Bar-On's EQ-I. The EQ-I renders a total EI score and the following five EQI composite scale scores comprising fifteen subscale scores: (1) Intrapersonal EQI (comprising self-regard, emotional self-awareness, assertiveness, independence, and self-actualization), (2) Interpersonal EQI (comprising empathy, social responsibility, and interpersonal relationship), (3) Stress Management EQI (comprising stress tolerance and impulse control), (4) Adaptability EQI (comprising reality testing, flexibility, and problem solving), and (5) General Mood EQI (comprising optimism and happiness).

The definition of a student for the scope of this research was an undergraduate female student who was studying at Roodehen university during the academic year of 2010-2011.

The theoretical framework for the research, being able to measure and improve EI, is supported through the research that EI can be increased through training (Schutte et al., 2001). In order to address the research questions, a true experimental design was applied (Creswell, 2008). The samples are randomly selected from the population, the independent variable is systematically manipulated, participants are randomly assigned

to groups, and a pretest, a posttest and a control group establishes a baseline to ensure that effects are linked to the manipulation.

Skills training for anger management, stress management and interpersonal communications are the independent variables, while EI is considered to be the dependent variable. In this study the anger management, stress management training and interpersonal skills programs were designed and a measurement of EI was completed for the students in the study. After registration, the three groups started on different programs. The anger group underwent five sessions of anger management, the stress group attended five sessions of stress management, and the communication group attended five sessions in interpersonal communication training. Participants in the control group did not participate in any program but participated in the pretest and posttest at the same time with the experimental group. The existing data for participants in the experimental group counselling center included all participants entering the three different groups (anger, stress, and effective communication training program) after September 15, 2011. Finally, the results of the pretest and posttest were compared.

Definition of Terms

For the purpose of this study, the following terms were used as defined in this study.

Emotional Intelligence (EI):

EI is the ability to correctly identify expressed emotion; the ability to access and/or generate feelings to assist thought; the ability to be aware of emotion and emotional information; and the ability to control emotions in order to promote emotional and intellectual growth (Bar-On,1997a).

Interpersonal Relationship (IR):

This refers to the ability to generate and keep mutually satisfactory relationships which include sensual closeness, friendship, being kind and accepting others' kindness (Bar-On, 2002).

Interpersonal Communication Training:

Motaby and Fathey (2006b) defined interpersonal communication training as competence in training, knowledge about interpersonal communication, and self-evaluation. Competent interpersonal communication training includes self-disclosure, owned feelings and thoughts, and descriptiveness and support (Mehrabian, 2009).

Anger:

Anger is an alternate emotion and a natural emotion, and an out-coming response to pain in one form or another (physical or emotional). Anger can happen when people do not feel fine, feel rejected, feel discouraged or experience some loss (Smith & Lazarus, 1993).

Anger Management Training:

Anger Management refers to the strategies and techniques individuals can use to control their responses to anger-provoking situations (Motaby & Fathey, 2006a).

Stress:

Lazarus (1993) defined stress as an extraordinary state which affects an individual's abitlity to function due to an outcome of internal and external factors. These factors differ in quality (different types of stressors) and quantity (different numbers of stressors) in their effect on the individual due to individual differences.

Stress Management:

Stress management includes the ability to tolerate adverse events, stressful occasions, and strong emotions without backing off, and also managing positive and active

stressful confrontations (Bar-On, 2002). Stress management training is shows how individuals can improve their ability to relax, reduce anxiety and depressive symptoms, and increase overall well-being descriptiveness and support (Motaby & Fathey, 2006c).

Chapter Summary

Chapter 1 included an overview of the concepts of interventions, and emotional intelligence as they relate to the first year university student population in Iran. Also included was the purpose of the study, statement of the problem, significance of the study, research questions, objective, and definition of terms used in the study.

CHAPTER 2

LITERATURE REVIEW

Introduction

The term emotional intelligence was coined in the late 1980s (Mayer & Salovey, 1990; Payne, 1986). In 1995, Goleman published a book titled "Emotional Intelligence" that popularized the construct of emotional intelligence (EI). Although the terminology is recent, concepts related to EI have been researched for decades (Bar-On, 2002; Goleman, 1995). The following sections provide an historical overview of the EI construct, available models of EI development and training, and research relating emotion and EI to university students

Historical Overview of EI

Gardner (1983) recognizes the work of Franz Joseph Gall in the late 18th century as possibly planting the first seeds for exploration of emotional intelligence. Gall is known as the founder of phrenology, the study of skull dimensions in order to develop a person's mental profile (Gardner, 2000; Schmalleger, 2004). Although such work seems an unlikely precursor to EI, Gall did not believe in the existence of general mental powers, such as perception, memory, and attention. Instead, he suggested that different forms of these powers exist for each of several intellectual faculties, such as language, music, or vision (Gardner, 2000). Scientists such as Pierre Flourens and Pierre-Paul Broca challenged Gall's theories through brain surgery and lesion research, proving support for localization of brain function (Gardner, 1983).

As the effort to establish psychology as a science began to take hold in the late 1880s, philosophy was more of an influence than the early physicians (Gardner, 1983). This influence gave way to the intelligence testing movement. British mathematician Sir

Francis Galton developed statistical methods to rank humans by physical and intellectual powers and correlate the measures with one another (Gardner, 2000). In 1904, Frenchmen Alfred Binet and Theodore Simon developed the first intelligence tests to assess the school readiness of Parisian children (Hodges, 2003). Gardner (1983) describes the ensuing excitement in the scientific community as a result of the intelligence testing movement. Other intelligence tests were developed and used widely for purposes such as evaluating people for school, military, and industrial organization placement (Gardner, 1983; Mayer, 2001). During this time, intelligence was viewed as the ability to abstractly reason and act on this reasoning (Mayer, 2001). Kaufman (2000) identified intelligence tests currently being used as the Wechsler (WAIS-III), Woodcock Johnson (WJ-R), and the Kaufman Adolescent and Adult Intelligence Test (KAIT). Occurring simultaneously, but separately, was the development of the modern study of emotions by such scientists as Darwin (Mayer, 2001). Despite this division between studies of intelligence and emotion, another precursor to the EI construct can be traced back to Wechsler (1940) and his idea of nonintellective aspects of general intelligence. Wechsler defined nonintellective as affective and cognitive and believed that no measure of total intelligence would be complete without including these other facets.

Contemporaries of Wechsler also contributed to preliminary EI study. Thorndike (1920) further suggested that social intelligence was a part of IQ. Additionally, Leeper (1948) proposed that emotional thought was related to logical thought and intelligence in general. However, by the 1960s, these concepts were largely dismissed by IQ theorists (Goleman, 1995).

One of the great debates related to intelligence testing is whether intelligence is a single general factor or a small set of independent primary mental faculties (Pfeiffer, 2001). The former theory is based on the work of British educational psychologist Charles Spearman and constitutes the majority of intelligence theories (Gardner, 1983;

Pfeiffer, 2001). The latter theory is credited to the American psychometrician L. L. Thurstone (Gardner, 1999) and is being adopted by a growing number of intelligence researchers (Pfeiffer, 2001). Criticisms of the single general factor of intelligence and intelligence testing cite failure of tests to predict work or life success and the racial bias of testing instruments (Fischer et al., 1996; Goleman, 1995).

In the 1970s and 1980s, new research integrated intelligence and emotion into the domains of cognition and affect, exploring the association between thoughts and emotions (Mayer, 2001). Harvard University's Howard Gardner played a key role in this movement (Mayer, 2001). Gardner's theory of multiple intelligences is credited as the foundation of the study of emotional intelligence (Bar-On, 2002). Gardner posited seven intelligences: (a) linguistic, (b) musical, (c) logical-mathematical, (d) spatial, (e) body-kinesthetic, (f) intrapersonal, and (g) interpersonal. Gardner defined intrapersonal intelligence simply as "access to one's own feeling life" (p. 239) and interpersonal intelligence as "the ability to notice and make distinctions among other individuals" (p. 239). It is intrapersonal and interpersonal intelligences that are closely related to current emotional intelligence theories.

Mayer and Salovey (1993) are often credited with coining the term emotional intelligence. However, Matthews, Zeidner, and Roberts (2002) identify a German article titled Emotional Intelligence and Emancipation written by Leuner in 1966 as the first formal mention of the term. Additionally, Payne (1986) uses the term emotional intelligence in an unpublished doctoral dissertation. Regardless of exact origin, the concept of an emotional intelligence became recognized as a new field of inquiry at this time (Mayer, 2001). Unequivocally, it was Goleman's (1995, 1998) work that propelled emotional intelligence into the public eye.

Goleman's original work in 1995 is considered an introduction of the construct of emotional intelligence (EI) to the general public, not a scholarly work (Matthews et

al., 2002; Mayer, Salovey, & Caruso, 2000). However, Matthews et al. (2002) ascribe importance to Goleman's work, viewing him as a catalyst in the generation of ideas about EI.

Goleman's conceptualization of EI has been criticized for several reasons. First, his definition is viewed as overly expansive and lacking in uniformity (Matthews et al., 2002). In his 1995 work, Goleman defines emotional intelligence as personal attributes including self-control, zeal and persistence, self-motivation, emotional impulse control, and the ability to read others' feelings and handle relationships smoothly (Goleman, 1995). Later in the same work, Goleman includes emotional skills of "self-awareness, identifying, expressing, and managing feelings, impulse control and delaying gratification, and handling stress and anxiety" (p. 259). Because of the assortment of attributes included in Goleman's conceptualization of EI, Matthews et al. (2002) report that aspects of cognition, personality, motivation, emotions, neurobiology and intelligence are represented. Other criticisms include failure of Goleman's EI traits to positively correlate with one another, challenging the underlying assumption of one EI construct (Matthews et al., 2002). Finally, Goleman has made strong claims regarding the importance of EI for life success, but offered little empirical support (Matthews et al., 2002).

At approximately the same time as Goleman, Mayer, Salovey, and colleagues began publishing scientific articles about emotional intelligence in peer-reviewed journals (Matthews et al., 2002; R. E. Mayer, 2009). Additionally, Bar-On began his work on a related construct, emotional quotient, although much of his work is unpublished (Bar-On, 2000; Matthews et al., 2002). The work of these researchers will be more closely examined within the framework of the models of emotional intelligence derived from their studies and resulting publications.

Prior to examining available models of emotional intelligence, various controversies related to the study of emotional intelligence are worth noting. Although the idea of EI is popular, the infancy of the field results in limited scientific investigation of the EI construct (Matthews et al., 2002). Additionally, a universal definition of EI does not exist (Bar-On, 2002). It also remains uncertain whether EI is an independent construct, or a repackaged combination of personality, intelligence, or applied psychological research (Matthews et al., 2002). Debate continues over viewing EI as a pure ability model versus a model mixed with personality traits and dispositions. Further debate involves measurement of the construct through self-report versus performance based measures (Palmer, Manocha, Gignac, & Stough, 2003), as well as lack of a suitably reliable and valid assessment instrument for EI (Pfeiffer, 2001).

Models of Emotional Intelligence

Recent EI research has progressed along two distinct paths, mixed models of ability/social competence and pure ability models (Cobb & Mayer, 2000). Because of the explosion of EI writings and research, other models and instruments of EI exist, but only the work of Bar-On and Mayer, Salovey, and colleagues is included, as these are the most prolific models available. The work of Bar-On (1997) and the earlier referenced work of Goleman (1995, 1998) reflect mixed models, whereas the work of Mayer, Salovey, and colleagues (2000) reflect an ability model.

Mixed Model of Emotional Intelligence

The recent development of the Bar-On model has been influenced by the primary work of Darwin about the importance of emotional expression for survival and adaptation. Darwin (1871) stressed both the value of emotional expression and points of views on emotional and socially intelligent behavior in his work.

On the other hand Bar-On was influenced by Thorndike's (1920) explanation of social intelligence and its effect on human performance; also Wechsler's (1958) observations about the effect of non cognitive and cognitive factors on intelligent behavior. Sifneos's (1973) explanation about alexithymia on the pathological side of emotional- social intelligence (ESI) and Applebee's interpreted observations on psychological ways of thought about the psychic side of it has had an impact on the development of the Bar-On model as well.

Since that time, most of the explanations, definitions and interpretations of ESI have contained some of the following main components:

1. ability to accept and express feelings and emotions
2. understanding others' feelings and responding to them
3. managing and controlling one's emotions
4. being able to cope with changes and solving problems
5. being self motivated and having positive effectiveness

Interpretation was examined by the Bar-On model, which provided the theoretical basis for the EQ-i. This model states that ESI is the cross action of interrelated social emotional abilities that determine the effectiveness of our understanding and the power of expressing ourselves as well as understanding others and communicating with them, and also our abilty in dealing with our daily needs. Also included are the five abovementioned main components. This is generally based on one's ability of being aware of oneself, knowing one's weaknesses and expressing feelings without hurting others' feelings.

ESI encompasses the capability of awareness of others' emotions and cooperation in relationships. This means that managing personal, social and environmental differences, flexibly when coping with new situations and also decision

making are all significant. To achieve this we should manage our emotions in a way that works for us instead of against us; optimism, being positive and having motivation, are both keys to achieving the above goals.

This section describes the Emotional Quotient Inventory (the EQ-I) which has played an important role in making this model. It is important to stress that the Bar-On model is operationalized by the EQ-I.

The EQ-I is a self reporting measurement of emotionally and socially intelligent behavior which gives an estimate of ESI. The EQ-I has been the first measure to be presented by a psychological test publisher and was the first measure to be reviewed in the Bouros mental measurements yearbook by Plake and Impala in 1999; it was the most popular measure of ESI until 2004. The Bar-On EQ-I technical manual presents a description of psychometric aspects of this measure and how it was made. Also it is available in Geher's recent book "Measuring Emotional Intelligence".

There are 133 items in the EQ-I that are short, communicative sentences ranging from "not true for me" to "true for me or of me". This test takes almost 40 minutes to complete and is suitable for those aged 17 and older.

Answers result in a total EQ-I score and sub scores derived from the subscales as follows:

1. Interpersonal which includes self-regard, emotional self-awareness, assertiveness, independence and self actualization.
2. Stress management, including stress tolerating level and impulse control.
3. Adaptability, testing reality, flexibility, and ability to solve problems.
4. General mood, which consists of optimism and delightfulness.

The scores are generated by computer, and raw scores are tabulated automatically and converted to global scores out of 100 with a standard deviation of 15. This test resembles Intelligence quotient (IQ) measurements and EQ-I was coined with the same

intention in 1988. The higher the score, the more positive the estimation for effective acting in coping with daily needs and struggles. Obviously the lower scores indicate poor responses to emotional and social dilemmas.

A built in correction factor automatically adjusts the scale scores based on positive impression and negative impression, which increases the accuracy level of the test results.

The careful development of the EQ-I assisted the creation of a healthy model of ESI. The EQ-I was basically developed in the early 1980s to examine the conceptual model of emotional and social functioning. At that time it was conjectured that social and emotional functioning must lead to a sense of psychological well-being and the underlying base of emotional and social intelligence was believed to be revealed by applying such an instrument on large scales of populations. Based on the results of applying the EQ-I in a large number of studies over the past 20 years, it was formed and is still being developed maintaining a theory which has an empirical basis.

Over a period of 17 years, this development continued in six main stages:

1. finding and logically clustering many emotional and social capabilities believed to affect the effectiveness and psychological well being based on the experiences gained by clinical psychologists and review of literature,
2. definition of key skill clusters abilities and facilitators,
3. generating almost 1000 items based on professional experiences and questioning clients,
4. statistical findings based on item analysis and factor studies,
5. customizing the final version of tools on 3831 adults in North America in 1996 (Bar-on, 2002).
6. validating the tools across different cultures.

The first customizing sample of the EQ-I had people from Canadian provinces and almost all the states of the USA. It included 49% males and 51% females from 16 to 100 years of age with an average age of 34.3 years. The sample included 79% white, 8% Asian American, 7% African American, 3% Hispanic, and 1% Native American. The EQ-i has been translated into more than 30 languages all around the world. Information has been collected in many different settings. It has been collected from six countries totaling 3000 individuals (Bar-On, 2000). The first translation was from English to Spanish in order to make data available in Argentina, which was followed by information and data collected in many other countries. In addition to supporting people with cross cultural information, it was also important for selecting items and alternatives followed by developing scales, validation and establishing the ultimate version of the response format.

It seems that stamina, optimism, political understanding and self-control are quite insignificantly related with emotion and intelligence. In other words, they seldom form a single unit. Hence, the difference of the ability viewpoint and EI mixed viewpoint is quite substantial. The mixed viewpoint studied the multiple aspects of personality, which is not related with the new concept of EI or even with the intelligence of emotion. For instance, the California Psychological Index (CPI) is a composition of the personal scales, which seems to be like some of the modern mixed EI tests, such as self-respect, sympathy, responsibility, sociability, tolerance, flexibility and self-control. In responding to such cases, the mixed concept adherents specified that EI is a new concept. Perhaps, in some scales of EI, various features are similar to personality researches but are given a different name. The accurate relation with such mixed viewpoints with the basis of personality, and understanding the cause, has resulted in considerable parallelism between the old and new scales.

One of the other theory makers is the Bar-on Emotional Intelligence mixed model (1997a), which has submitted a model of the emotional abilities. This model covers five extensive scopes of the training or abilities, namely:

Intrapersonal relationship which includes emotional self-awareness (recognition and understanding self-feelings), courage (expressing the feelings, beliefs, thoughts, and defending the personal rights in a useful manner), self-arrangement (awareness, understanding, accepting, and self-respect), self-flourish (meeting the self potential talents), and independence (self-command and self-control in thinking and personal acting and releasing the emotional dependency).

Interpersonal relationship, which includes the intrapersonal relations (awareness, understanding others' feelings, generation and keeping mutual satisfactory relations which is specically emotional closeness and dependency) and social responsibility. Compatibility, which includes problem-solving (identification and definition of the problems and also establishment of effective solutions), reality testing (the ability to measure the harmony between something experienced emotionally and something that really exists) and flexibility (arranging emotions, adapting thinking and behavior to changing situations and conditions).

Stress tolerance, which includes the ability to tolerate stress (resisting undesirable incidents and stressful situations) and shock control (withstanding shock or shock denial).

General mood, which includes happiness (self-life satisfaction, making oneself and others happy) and optimism (look with respect at the clear aspects of life and keeping the positive vision, even at the time of facing the difficulties).

Impulse Control

Impulse control is measured by the EQI IC subscale. To the extent that the TMMS taps Emotional Intelligence, impulse control as defined in the Bar-On model shares a common domain with this construct as conceptualized by Salovey and Mayer (1990). More specifcally, the nature of this overlap has to do primarily with understanding emotion (*r* was .50 with the TMMS clarity of feeling scale mood repair scale) (Henner, 1998). This specific contribution of impulse control to emotionally intelligent behavior can also be seen from the way the IC subscale significantly correlated with the POIA scale (*r* was -42 Bar-On 1997b), as well as with factor E (+.38), factor Q3(+.44) and factor Q4 (-.51) on the 16PF (ibid); it also correlated fairly highly (-0.59) with the SCL-90 hostility scale (ibid). This finding demonstrates that the IC subscale measures acceptance of one's aggression and the ability to be imposed and to control aggression and hostility, aggressiveness, and irresponsible behavior. Furthermore, the IC subscale correlated highly with PAI aggression scales (ibid) and with the following MMPI-2 scales (Morey, 1996): PD (-0.49) , Ma (-0.53) ANG (-0.77) and TPA (-0.76) . These scales measure a tendency toward impulsiveness, low frustration tolerance abusiveness, unpredictable behavior, anger control problems, loss of self-control, and explosive behavior.

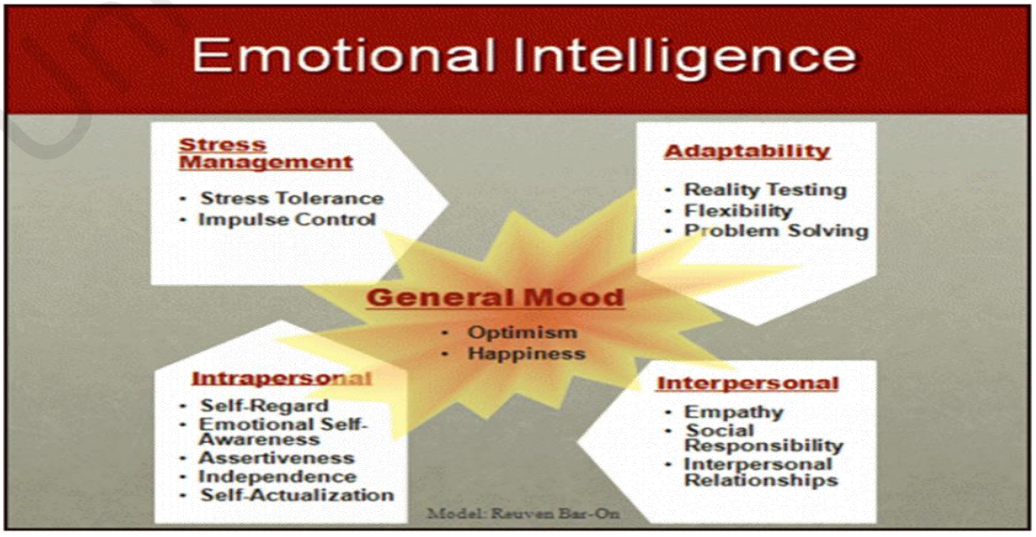

Figure 2.1. EQ-I Bar-On Model subscale.

Ability Models of Emotional Intelligence

Mayer, Salovey, and Caruso (2008) compiled a modified model of EI, which emphasized more on the intelligence and emotional growth cognitive components. Such a model investigates EI practically and in two cognitive and emotional systems: the system of identification of talents or inserting the information and ability to process emotional information completely, symbolizing rapid manipulation and referring to specific knowledge (Mayer & Geher, 1996).

Both these two systems (cognitive and emotional) act in an integrated model. Such a model is formed of four branches or components (Mayer & Salovey, 1997); each indicates a classification of the abilities which are arranged according to hierarchy and complexity. The sub-training of each branch has been organized as per the complexity of each branch, while such complexity highly depends on the model of the other branches' training (Figure 2.2):

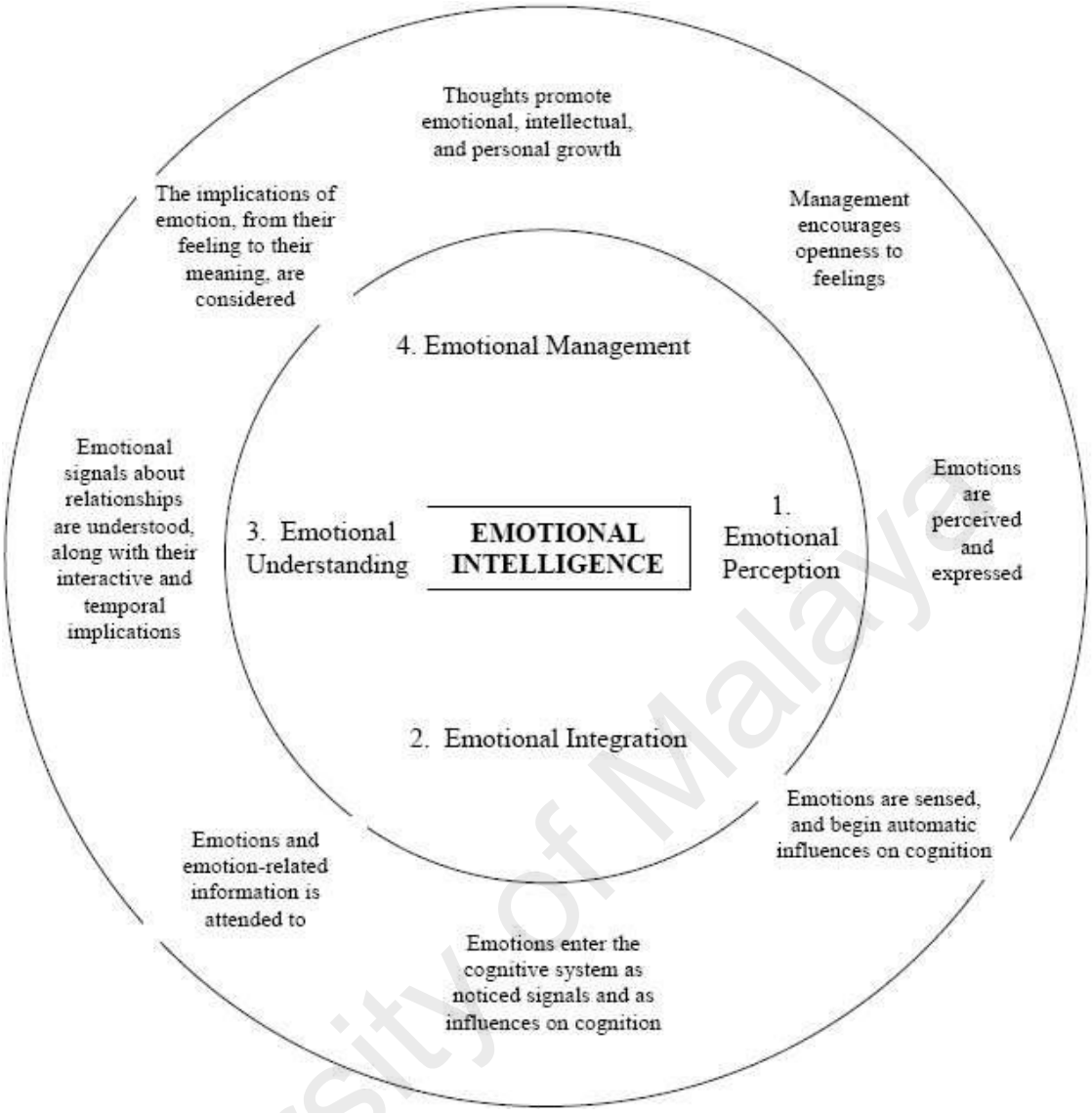

*Figure 2.2.*The Emotional Intelligence framework from framework from Salovey, Bobdel, De Toyler & Mayer (1999). From Mayer, Salovey, & Caruso (2008).

First branch: understanding, evaluating and expressing the emotion, which includes the ability to realize the emotion in physical states, self feeling and thinking, the ability to realize emotion in others, plans, works of art, language, voice, appearance and behavior, the ability to show precise expression of emotions and the needs associated to such feelings; the ability to identify between the precise and accurate, and improper and wrong expression of feelings.

Cognitive-emotional system in-circulation: this component includes recognition and insertion of information. EQ may not be initiated without the first branch (Fig 2.2, right side). Any time improper feelings are generated, one can move away one's focus from the same topic, in the same manner that one has almost learned to focus on the feelings. Understanding the emotions, consideration and decoding of the emotional messages as they are expressed in one's facial gestures, tone of voice, works of art, and other cultural works. Somebody who understands the laughing state on another's face receives many things about the emotions and feelings of the person, in comparison with somebody who does not understand such issues. The ability of people in considering the evaluation and expression of their self emotional states and emotional states of others is different. Such abilities shall be deemed as the basis of temper feelings and states related information processing training. Also, the main emotional abilities are of certain importance; those who evaluate their emotions rapidly and accurately may better respond to other individuals and their surrounding environment. In evaluating emotions, other things matter, such as personal differences in the ability of accurate understanding and sympathy with others' emotions. Those more skilled in this regard may better react to their social environment and make a proper social protection framework for themselves (Salovey, Bobdel, De Toyler, & Mayer, 1999, in Mayer, Salovey & Caruso, 2008).

The Second branch is the emotional facilitation of thinking. This includes the ability to prioritize and apply the personal thinking of each level of feelings relating to the objects, incidents and other individuals, the ability to establish or imitate clear and active emotions in order to facilitate judgment, realization and the memory associated to feelings, the ability to control temper fluctuations to generate multiple viewpoints and the ability to use the emotional states in order to facilitate problem-solving skills and creativity (e.g., feeling happy facilitates the basis for inducing reasoning and creativity).

This branch is associated with utilizing the emotion to strengthen the cognitive processes (Fig. 2.2, bottom).

Emotions are a complex organization of the physiological, emotional experience, and mental life awareness. Emotion determines two cognitive systems: realized feelings, when one thinks "now I am unhappy", and the frequent (variable) cognitions; when one thinks "I am not good", while being under unhappiness conditions. Facilitation of thinking emotionally is focused on the way emotional data enters the cognitive system and changes the cognition to assist in thinking.

The emotions may impose, at times, on the cognitive system, so that the cognitive system is oriented towards what is more important (Simon & VonKorff, 1991), or can even be focused on a better temper (Palfai & Salovey, 1993). Emotion changes cognition, making it positive when one feels happy, and making it negative, when one feels sad (Payton et al., 2008).

Such changes make the cognitive system consider the surrounding world with respect to various viewpoints, for instance, frequency between doubt and optimism. The advantage of such frequencies is obvious; changing one's viewpoint between doubt and optimism makes one powerful to investigate an extensive range of possible actions and results (Mayer & Hanson, 1995). Apart from that, some scholars (e.g., Isen, 2009; Palfai & Salovey, 1993; Schwarz, 1990) believe that emotion makes a different mental tendency, which is of less or more conformity to solve some certain types of problems; that is, various emotions generate various information processing styles.

Positive temper, for example, facilitates the mental states in order to generate creativity in thinking and friendly behavior to make new relations (Isen, 2009). Negative temper establishes a kind of mental state in which the problems are solved with difficulty and with more focus and consideration on details. Palfai and Salovey (1993) expressed that these two different information processing styles are effective for two different types

of problem-solving duties: inductive and deductive problems. Also the emotionally intelligent people are able to have training and direct emotionally stimulated qualities. For instance, some students may stimulate themselves to commence studying by imagining the negative effects of failure by expressing sentences such as “the exam is difficult” and by making a fear state; while other students may motivate themselves for studying by reminding themselves of their previous achievements. Motivating the positive temper results in fortifying self-confidence and insisting on due diligence in task fulfillment.

Third Branch: understanding and analysis of emotional information or application of emotion knowledge, which includes the ability to understand the relationship between the various emotions, ability to understand the causes and the feelings, the ability to change complex feelings such as various emotions and contradicting feeling states, the ability to understand and predict the potential transfer of emotions, such as transfer from anger to satisfaction or from anger to shame, the ability to label the emotions and recognize the relations between emotions and words used to describe the same. Such branch is related to emotion processing (Fig. 2.2, left side).

The third emotional branch is related to the emotional system of fundamental knowledge. The main ability in this level is related to the ability to label the emotions or words and recognizing the relations between the words and evident samples. Emotionally intelligent people are able to realize expressions which are arranged in a set of familiar words and a group of emotional expressions which are arranged in a class of unknown words (Engle, Carullo, & Collins, 1991). For instance, people have learned that some words such as anger, unhappiness, and suffering may be classified in the same category (i.e., anger). Perhaps, the relation among such expressions is guessed, so that, in case the stimulators are not removed, then suffering and unhappiness may result in anger (Salovey, Hsee, & Mayer, 2001).

In order to understand the concept of emotion, one should learn what is transferred by emotion regarding the relations. For instance, Lazarus (1991) described the concept of "relation main contexts", which forms the main loss or advantage in compatible facing that makes the basis for any emotion and is related to various types of feelings. Anger is the result of an insult suffered by oneself and feeling guilty due to failure in observing a mandatory order (Lazarus, 1993). Understanding and analyzing emotions includes the ability to recognize transfer among the emotions. For instance, Gausel and Leach (2011) discussed in detail how the feeling of shame -- and not feeling of guilt-- is the initiation of the anger state. People may totally feel ashamed while they are angry (Tangney, Wagner, Fletcher, & Gramzow, 1992). Those who understand emotions and their meanings will have a way of composing and improving of the same beyond time limits, and have the talent to understand the fundamental facts of human nature and interpersonal relations.

Fourth branch: intelligent arranging of emotions for emotional promotion and intelligent growth, which is the ability to suspend the feelings, either desirable or undesirable. This includes the ability to challenge or escape from an emotion in a wise manner, depending on the learning or the understood interest, the ability to wisely control the emotions in interpersonal communication with oneself and with others, the ability to arrange the emotion in oneself and in others via adjusting the negative emotions and increasing desirable emotions (Fig. 2.2, top).

Emotional knowledge helps the fourth component of EQ (i.e., managing emotion). However, these people will grow the abilities associated to such field to use the respective knowledge practically. The skill of arranging emotion results in keeping the temper and solutions for temper rectifying, such as avoiding undesirable activities or looking for rewarding activities. Those who are unable to control their emotions are more likely to experience negative feelings and remain under a weak mental state (Arbib & Rizzolatti,1997). The knowledge of the cause for emotion is acquired via experiencing the

reflection of emotion first and we will then be able to establish theories about the reason and the way of stimulating emotions under various circumstaces. The ability to understand and analyze emotional experiences results in the ability to understand oneself better in relationship with one's environment, which accelerates the effective arranging of emotion and fortification of being good. In psychiatric literature, this state is known as emotional literacy (Perry, 1997).

Emotional control begins with emotional understanding. When one has a proper emotional understanding of one's temper and emotion in the first place, a range of knowledge is made to control and face these feelings. In fact, an emotionally intelligent person may regularly face the temper unstable states, which requires the ability to understand temper. Sometimes emotions are complex, unknown and irregular; a skilled controller will understand some of the various emotional guidelines with high flexibility. For instance, widening the spectrum of feelings is good, but not for all occasions. Generally speaking, any person will experiece some harmful incidents at any given time. Controlling the emotion includes understanding the form of emotion from its procedure in one's relations with others and one's surrounding environment. Such relations may act in an effective and ultra-social manner and may also make for stronger social protective networks.

Various definitions of EI have been given in two general and scientific fields simultaneously with the appearance and development of EI. The three discussed concepts are: EI as the time spirit or the cultural orientation of a certain era, EI as a set of personality characteristics and finally, the scientific view with respect to EI as a set of mental abilities in emotional information processing.

The EI and concept of time spirit: the general territory of the EI is a concept which is defined as the spirit of time; meaning, intelligent or emotional orientation, which identifies the time of the cultural and political movement. The peak of EI extension

occurred with the publication of articles on the importance of EI in academic and career success (Goleman, 1998). The main discussion in these reports focused on the neglected part of personality, which increases one's chance of achieving one's goals. The reason for such focus was the total agreement of the authors with two cultural parts in western thinking: conflict between emotion and wisdom and conflict between elite-orientation and egalitarianism. The history of fight between considering and neglecting emotion in western thinking is quite old. The movement of stoicism in ancient Greece (approx. 200 BC to 300 AD) related to the role of emotion in establishing a good and desirable life. According to the Greeks, mood and humor, shock, fears and interests are quite self-oriented and unique and thus may not be trusted. In the stoicism philosophy, the wise man did not approve of any emotion or feeling. The Stoics transferred the moral and social concepts which have been a heritage from western civilization, into the internal structures of Christianity which eventually resulted in accepting the anti-emotional thinking. Gradually, since the late 18th century, the feeling movement in Europe emphasized sympathy, intuitive thinking and emotion. Authors, musicians, feminists and even some mental patients made a series of movements against the dominant solid, self-oriented and classic codes in western culture and art. They believed that feeling is a reality, and is the reason of existence of the feeling of loneliness and alienation in individuals. Thus, in order to face the same, expression of personal interests and influence in poetry and prose are essential; Allport (1961), Maslow (1998), and Rogers (1995), as the supporters of the human-oriented psychology, started political activities within the psychology framework and even further, they faced some beliefs such as "man is naturally weak and may easily be affected" by society (p. 100). They argued that all the people are autonomous and the fundamental need of people is having a good feeling about themselves, direct experiencing of their own emotion and emotional growth.

The second conflict and in fact the other element of the time spirit, was the contradiction between realizing the personal differences and emphasizing of personal characteristics. One viewpoint made with respect to intelligence eventually became generally accepted in the West, when Herrnstein and Murray (1994) extended the Bell Curve. They believed that the people are on a curve as per the intelligence feature and such differences are fixed and are changed with difficulty. Later the scholars indicated that low intelligence is the reason some people have weak performance, and on the other hand, some with higher intelligence show a higher efficiency. The prevalence of various intelligence-based differences, such as the discussion between genders, tribes, races and religions have resulted in serious conflicts.

Addressing of the EI was a response to the Bell Curve to some extent. Promptly after the Bell Curve definition, Goleman (1995) identified EI from general intelligence and expressed that: "in comparison with general intelligence, EI is stronger and the important EI abilities may be learned". In this regard, the cultural conditions or the value of the time spirit of EI was egalitarianism; in other words any person may be intelligent emotionally; furthermore, the emotionally capable society is a society where anybody, even those who are not considered as intelligent, may be intelligent.

Emotional Intelligence Personality- Social Viewpoint (Mixed):

EI has been applied by some scholars to define the abilities which indicate some personality aspects. Mayer, Salovey, and Caruso (2000) identified the ability model from the mixed model of EI. The mixed model includes an extensive range of the personality variables, which are against the Mayer and Salovey ability model, which is totally cognitive. One totally different aspect of these two models is the difference between the concepts of character and information processing of EI. Such aspects of

differences are obvious in the different viewpoints and operational definitions made by the theory makers of the mixed and ability model.

With regard to EI and the concept of personality, the personality psychological issue is the study of the various psychological parts, organizing and growing the same with the purpose of relating the various parts of mind such as defensive mechanisms, structures, and performances (Mayer, 2001). The question posed here is: Does the Emotional Intelligence apply for general character description? The answer to this question depends on the way one imagines man's personal system (Payton et al., 2008). The expressions which are sometimes used by people for EI imagination, such as motivation, emotion, cognition and awareness, are considered the four main processes which form the physiological basis of personality. The internal motive basis is essential to evolve the interests, dependence and safety of an individual. The emotion system includes internal experiences in response to the external relations. For instance, if we believe that others like us, then we will feel happy; on the other hand, if we believe that others treat us badly, then we will feel angry. In comparison with this set of mental mechanisms, cognition has a more external nature. In fact, one of the purposes of cognition is to help establish a satisfactory protection from such motives and maintain desirable emotions, as well as thinking about addressing the internal interests such as imagination.

On the other hand, cognition serves in drawing plans of the external world, testing and experiencing the same, effective independence, and identification between imagination and data processing. Awareness is one's knowledge of the other parts of mind. Such a state is always kept when one is awake, although it is possible that due to fatigue, the stimulation and other conditions of awareness state might fluctuate. Some believe that awareness tends to move toward creative change; it stops and changes the

direction of the mind's current operations, when the mind may not properly find the solutions. In fact, awareness provides opportunities for such change of direction. Figure 2.3 gives a schematic outline of the major systems of personality (Mayer, Salovey, & Caruso, 2000).

Level 3 Mental characteristics	Self-based features, such as: self-respect, self-awareness, personal intelligence, self-strength	General features, such as: extrovert, verbal intelligence, friendly relations, responsiveness, decisiveness		
Level 2 Mental plans	Models of one's self, e.g. self concept, self-ideal, identity, history of life	Models of one's self in the word, e.g. roles, dependencies, likening, leadership codes	Models of the world, e.g. knowledge of the time	
Level 1 Mental mechanisms	Main motives, e.g. tendency for eating, drinking, sleeping, relation with others, self-defense	Main emotions, e.g. feeling happy, unhappy, anger, fear	Main cognitive operations, e.g. learning, remind, judgment, comparison	Main awareness, e.g. knowledge, consideration of mental flow

Figure 2.3. Schematic outline of the major systems of personality (Mayer, Salovey, & Caruso, 2000).

The First part of personality is a series of models from one's own main motives, for example, a tendency for eating, drinking, sleeping, relation with others, and self-defense, which are formed by learning (Figure 2.3). Such models include a series of aspects as follows: main emotions, for example, feeling happy, unhappy, anger, and fear. Main cognitive operation (e.g. learning, remind, judgment, comparison). Main awareness, for example, knowledge, consideration which are merged into mental flow.

The second part of personality is a series of models from one's self surroundings and world and one's self in the world, which are formed from learning (Figure 2.3). Such models include a series of aspects of the personal motives, emotions, cognitions and awareness states, which are merged into a series of plans in them and the surrounding world.

The third part of the personality is character, that is, when a motive, emotion or thinking is continuously present in one's model of the surrounding world, then the character of the individual is formed. For instance, if a child watches a scene of someone fighting with a someone, the behavior of hitting the doll and quarreling with the parents, and so forth, will appear which indicates the quarrelsome characteristic of such a child. Generally speaking, the features are different from simple motives, emotion and cognition, which are generated from interaction of one's self or the world acquired models. This is a relative definition for personality; while it is enough to understand the EQ expression according to the personality. For instance, we learned that emotion merely covers one out of four personality fundamentals, which is different from cognitions, motivation and awareness.

The EI and mental ability concept: in this expression, EI is a composition of mental ability, skill or capability which focused on emotional information processing. Thus, the main task is conceptualizing those abilities which make the emotional intelligence, as well as establishing some methods to measure such abilities and understand whether EI is equal to a standard intelligence.

Intelligence is defined as a set of mental abilities. Ability, of any kind, describes a feature according to which one is able to successfully perform a task which has been described as difficult (e.g., acquiring certain and proper result). For instance, physical ability may be equal to lifting of a 100kg weight and mental ability includes measuring one's performance, such as remembering seven numbers in a row. In this regard, mental

ability is equal to mental talent and similar to mental skill, which especially expresses some of the learned items. It is also similar to the mental ability which requires the ability of meeting a certain criterion.

Mental ability may be different from other abilities such as separating thinking, and problem-solving. The theories proposed in the 20th century are enough to describe and re-evaluate what is and is not considered as mental capability. For instance, those scholars who apply EQ to describe the multiple aspects of personality often consider the personality features as ability or talent. Also, Bar-On (1997a) addresses the non-cognitive talents such as courage. Goleman (1998) refers to the creativity and discipline of employees expressing such abilities. All these relations are valuable; however, does describing this model establish a correct and precise application for the ability concept? Considering the extent of personality and all its parts, one may respond to the question: "what is and what is not intelligence?" (Mayer, 2001). In this viewpoint, cognition, emotion and motivation do not cover all of one's personality and also mere presence of some of the cognitive abilities does not make up intelligence. For instance, social people undoubtedly process social information as they interact with others. However, the main point of sociability is interacting with others and not social problem-solving. On the other hand, social intelligence includes understanding, persuading others, strong control of relations, establishing a harmonious group and other similar issues. Thus, sociability is not social intelligence. Generally speaking, personality features such as responsiveness, sociability and optimism are not social intelligence, as none of them focus on problem-solving.

Now we consider EI. Emotion conveys a series of meanings. For instance, the experience of anger usually indicates the existence of understood injustice or interruption in achieving a proper objective and the experience of sadness. Emotion is developed in predictable models and under complex social situations. Let us presume

that if somebody feels happy and sad simultaneously, there are only a few incidents that would result in such reaction. Intelligence is essential to find those types of incidents which result in such feelings. In other words, the intelligence system has the capability to identify and insert the information and furthermore, the ability to process the information. In short, emotions satisfy this comprehensive and complex coded system.

Goleman: A Mixed Model of Emotional Intelligence

Daniel Goleman, a psychologist and science writer who has previously written on brain and behavior research for the *New York Times*, discovered the work of Salovey and Mayer in the 1990s. Inspired by their findings, he began to conduct his own research in the area and eventually wrote *Emotional Intelligence* (1995), the landmark book which familiarized both the public and private sectors with the idea of emotional intelligence. Goleman's model outlines four main emotional intelligence constructs. The first, self-awareness, is the ability to read one's emotions and recognize their impact while using gut feelings to guide decisions. Self-management, the second construct, involves controlling one's emotions and impulses and adapting to changing circumstances. The third construct, social awareness, includes the ability to sense, understand, and react to others' emotions while comprehending social networks. Finally, relationship management, the fourth construct, entails the ability to inspire, influence, and develop others while managing conflict (Goleman, 1998).

Goleman includes a set of emotional competencies within each construct of emotional intelligence. Emotional competencies are not innate talents, but rather learned capabilities that must be worked on and developed to achieve outstanding performance. Goleman posits that individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies. The organization of the competencies under the various constructs is not random; they appear in synergistic

clusters or groupings that support and facilitate each other (Boyatzis, Goleman, & Rhee, 1999). Figure 2.4 illustrates Goleman's conceptual model of emotional intelligence and corresponding emotional competencies. The constructs and competencies fall under one of four categories: the recognition of emotions in oneself or others and the regulation of emotion in oneself or others.

	SELF Personal Competence	OTHER Social Competence
RECOGNITION	Self-Awareness Emotional Self-Awareness Accurate Self-Assessment Self-Confidence	Social Awareness Empathy Service Orientation Organizational Awareness
REGULATION	Self-Management Self-Control Trustworthiness Conscientiousness Adaptability Achievement DriveInitiative	Relationship Management Developing Others Influence Communication Conflict Management Leadership Change Catalyst Building Bonds Teamwork and Collaboration

Figure 2.4. Goleman's (2001) Emotional Intelligence Competencies.

Measures of Goleman's Model

Several measurement tools have been developed based on Goleman's model of emotional intelligence and its corresponding competencies. Included among these are the Emotional Competency Inventory (ECI; Boyatzis, Cowen, & Kolb, 1994), the Emotional Intelligence Appraisal (EIA; Bradberry et al., 2003), and the Work Profile Questionnaire - Emotional Intelligence Version (WPQei; Performance Assessment Network, 2000).

Emotional Competency Inventory: Daniel Goleman developed the Emotional Competency Inventory (ECI) as a measure of emotional intelligence based on his emotional intelligence competencies as well as an earlier measure of competencies for managers, executives, and leaders (the Self-Assessment Questionnaire) by Richard Boyatzis (1994). The Emotional Competency Inventory is a multi-rater (360 degree) instrument that provides self, manager, direct report, and peer ratings on a series of behavioral indicators of emotional intelligence. It measures 20 competencies, organized into the four constructs outlined by Goleman's model: self awareness, social awareness, self management, and social skills. Each respondent is asked to describe themselves or the other person on a scale from 1 (the behavior is only slightly characteristic of the individual) to 7 (the behavior is very characteristic of the individual) for each item, and in turn these items are composed into ratings for each of the competencies. The respondent is left with two ratings for each competency: a self rating and a total other rating (made up of an average of all other ratings; Boyatzis, Goleman, & Rhee, 1999).

Emotions and Behavior

The concept of character of EI is associated with behavior inter-situational indexes such as courage and optimism, while the concept of information process is related to some abilities, such as the ability to realize, express and label the emotions. The concept of character is rooted in the personality framework, which is measured via the self-assessment questionnaires which assess a certain behavior (Bar-On, 1997b; Salovey, Mayer, Goleman, Turvey, & Palfai, 1995). Such a viewpoint in EI investigation is affected by personality variables (such as sympathy, and being shocked) and the structures which are potentially in regression with the same (e.g., motivation, self-awareness and hopefulness). In contrast, the information processing viewpoint is

more focused on the useful section of the EI and its relationship with traditional intelligence.

One of the aforementioned model theory makers is Goleman (1995), who established the concept of IE on five fields as follows:

Being aware of one's emotions or Self-awareness --feeling recognition as it happens-- is the main basis for EI. It is possible that the ability to control is not predictable; then emotional control focuses on investigating the different emotional paths and correctly choosing one of them. For instance, case one is angry with his wife, then is it better to hide it so that both may calm down? Is it possible to neglect the anger, without specifying the cause of such anger? Emotional control is necessary for conformity of the potential emotional reactions under various situations, which allows one to step into a path where one may think or act better. The ability to help others in order to increase or compensate for temper is an important skill. The various social networks depend on the generation of practical and emotional gap against life's negative incidents (Strobl & Bruce, 2000). For instance, people are always aware of the effectiveness and social value of helping those who like them and showing a good feeling with respect to this fact. Thus, those who are able to control others' emotions are aware of each moment of feelings for psychological vision and self understanding. Those who are more confident with regard to their feelings and emotions show more training in directing and controlling life incidents.

Controlling emotions: controlling emotions in a proper manner is a skill which generates self-awareness. Efficient people may better "dispose" of the negative emotions, such as hopelessness, stress and excitability, and are faced with fewer problems in life issues. Futhermore, they (when a problem situation occurs) may rapidly return from the problematic and improper situation to desirable conditions. In contrast,

those who are less able to control their emotions are always involved in helpless feelings.

Self-motivation: this component is related to the focus of the emotions on achieving the targets with sureness, consideration and creativity. Self-motivated people delay satisfaction, know when to suppress demands and often embark with the aim of completing an action. They are always trying, and they tend to always be effective and productive.

Realization of the emotions in others: sympathy is the basis of public training. Those who enjoy this realization are acquainted with the elegant social hints and interactions which indicate the others' needs and demands. Having this skill strengthens the job effectiveness of people in educational, professional and managerial fields.

Relations control: skill in this field is accompanied with the common ability to control emotions and have compatible interaction with others. It is also related to the natural aspects of leadership, as well as having regular and harmonious interpersonal relations.

Also in his book titled "Emotional Intelligence at Work", Goleman (1998) classified these five abovementioned components into the following emotional abilities: political awareness, employee discipline, self confidence, awareness and progress motivation, stamina, optimism, and self control. The question posed here is: "stamina, political understanding, optimism and other similar issues are parts of the EI and if not, then what are they?" In responding to such questions, Mayer et al. (2005) earlier presented a model of personality components categorization as a set of systems of the main parts of personality.

An energy network includes the personal motivations and emotions that facilitate the general path for fulfillment of works. This system indicates the tangible involvement system, meaning the lowest motivational and emotional levels of the

personality system. The respective side parts include motivation, need for progress, need for wisdom, need for power, motivational levels, stamina (stability), eagerness, emotions, happiness, anger, sadness and depression, emotional style, being emotional and emotional stability.

The cognition and awareness factor includes the reserve of personality information, feelings and thoughts about oneself and the surrounding world and acting according to this information. The respective side branches also include the ability and progress, verbal intelligence, area intelligence, emotional intelligence, cognitive styles and optimism- pessimism.

"Role playing" includes the design of important social activities such as leading or obeying others, sympathy, and having a good effect on others. This system is associated with the networks of expression, extrovert, introvert and role playing ability.

"Aware manager", which is the center for self-awareness, includes self-awareness and self-control. The aware manager's behavior is based on creative thinking and high level performance of time personality, which is necessary and includes awareness and high-low decisiveness.

Now, we consider the stamina and eagerness, optimism, political understanding, and self-control, which some of the scholars regard as forming certain aspects of EQ. Stability (stamina) and eagerness are in the energy network, which help guide one in facing obstacles. Optimism is a method of predicting the surrounding environment, which is in the second system, that is, knowledge factory. Political understanding is related with the role player; for instance, can one acquire the others' support in a meeting and determine a certain place for oneself. Self-control is positioned in the awareness management branch. For instance, can people change themselves into better persons? Such skill is mandatory for one's whole life.

Social Thinking and Behavior

Simultaneously with appearance of man's civilization, some philosophers such as Pascal, Kant, Aristotle and Plato embarked upon studying the role of feeling in thinking and behavior. Plato was one of the first who introduced feelings as the primary and animal nature of the human and in contradiction with wisdom. Today some effects of this idea still remain. Perhaps, investigating the role of feeling still remains the final frontier of scholars' efforts to understand man's behavior dynamics. Although it is possible that most of us are aware of the critical role of feeling and temper states in our mental and practical life, even until recent times we have had no complete and precise understanding of appearance and actions of such effects. Recent investigations in psychology and anatomy of nerves indicate a different view of feelings, according to which feeling is generally useful and even makes the main element of a compatible response in a social position. A study of brain-damaged patients indicated that those who are unable to properly experience social relations due to the damage act unsuccessfully in social decision making; also their social relations are harmed, even if their intelligence abilities are unharmed.

Damasio (1999) believed that the evolutionary affectionate processing is in priority of the complex forms of information processing, cognition to the guidance of evolutionary feeling processing is in priority of the information processing complex forms, cognition to the guidance of the feeling processing is in more need following the admirable and effective growth of the recent researches. Regarding feelings, it is desirable that we may investigate the multidimensional feelings in thinking and daily activity with more emphasis.

One important aspect of EI is to know how these feelings effect action and how it is possible to arrange and control them. This discussion is not only considered by psychologists, but is also considered by anybody who wishes to know about the

complex role of feelings in daily life. Recent studies indicate that feeling and cognition are not separated; in other words, where mental independent abilities are concerned, there is fundamental regression in man's social life between feeling and thinking. Feelings may affect the process of thinking (way of relation with social data) and contents of thinking, judgment and behavior (what we think or act). Perhaps the most fundamental effect of the feeling states is in reminding us of memories. Those who are in a positive temper state are reminded of more happy and positive memories and experiences from their childhood. Conversely, those who are in a negative temper state may be thinking about things that even endanger their future. Knowing these fine effects is an important component of EI, which helps in predicting and controlling situations.

Emotional Intelligence and Stress

In the current century, which is known as the stress era, anxiety and confrontation (compromise), and the ability of controlling undesirable emotions are of great importance for emotional health (Goleman, 1998). Confrontation means one's efforts in controlling and managing a pressuring, stressful and challenging situation (Lazarus, 1993). The relationship between the processes of confrontation and conformity effects, include but are not limited to physical and psychological health, are considered by the personality researchers (Lazarus, 1993; Zeidner, Matthews, & Roberts, 2004).

Mayer, Salovey, and Caruso (2008) expressed that most emotionally intelligent people have more successful confrontations, as they understand and express their emotional states accurately; they know when and how accurately to express their feelings and may effectively manage their temper states. Accordingly, Bar-On (1997) also suggested that controlling stress and the ability for conformity are considered as two main EI elements. In other words, comparison of opposition may be considered as

EI in practice, dominance on emotions, emotional growth, and cognitive and emotional identification which allows one to grow.

Violence in the Field of Health Psychology

In the 1980s, excitation attracted attention of many researchers in the field of psychology (e.g., Clore & Ortony, 2000; Frijda & Zeelenberg, 2001), and parallel to it, the passion for studying anger, especially the relationship between anger and cardiovascular diseases, increased significantly. Abundant studies exist on anger as associated with cardiovascular diseases; this is reflected in some scientific books (e.g., Chesney & Rosenman, 1980; Friedman et al., 2004; Johnson, 1990; Julius, 1992; Seigman & Smith, 1994 (cited by Taylor & Novaco, 2004) and published books for non-professional readers (for example Williams, 1994). Effective work in this field is addressed in books provided by Friedman and Rosenman as well as Barefoot, Dahlstrom and Williams's studies, which evaluated the relationship between cardiac coronary diseases and practitioners' mortality with the degree of their hostility (cited by Taylor & Novaco, 2004). In these types of studies, often there are no differences between violence and hostility.

Research conducted in these two decades have proven this fact (e.g., Dembroski, MacDougall, Williams, Haney, & Bluementhal, 1985; Sigman 1994 (cited by Taylor & Novaco, 2004). In recent years, researchers differentiated the structure of violence and hostility and in their point of view, anger is one of the risk factors for developing coronary vascular block. As Strike, Wardle, and Steptoe (2004) stated, the relationship between anger and cardiac coronary disease is powerful and stable. This fact was proven by data related to mortality rates gathered from one major sample in the prospective study done by Eaker, Sullivan, Kelly-Hayes, D'Agostino, and Benjamin (2004) and also verified by Rosenberg et al. (2001). The relationship between anger and

stroke and myocardial infarction is already well known (cited by Taylor & Novaco, 2005). Bakan and Akyol (2008) also concluded that the frequent and intense nature of cardiac coronary obstruction has a powerful relationship with a degree of violence and hostility.

Interestingly the tendency for studying anger and violence has increased by its relation to medical disorders. During the present time, many people died due to violence and hostility; although the cause of most victimization is external anger (death due to injuries on the body tissue resulting from violent behavior). Therefore, the harmful effect of violence is either internal or external and people may lose their lives due to violence and anger. Always there are many interpersonal and social problems induced by emotions; violence is the most predictable outcome. It appears that researchers did not pay attention to this death effect because violence was not problematic in their clients, such as company managers. Since violence became measurable and treatable in the medical and laboratory environment, its attraction and popularity increased as a subject for research.

In the United States (Skala et al., 2006) the relationship between violence and cardiovascular disease has received attention from researchers. Also, violence makes people vulnerable to other physical diseases and medical conditions (Taylor & Novaco, 2005). For many years, it was recognized that violence was associated with increased excitability of the cardiovascular system, and this system has a mechanism for converting human behavior and personality to the process of cardiovascular disease (Simon, 1991, cited by Taylor & Novaco, 2003). About the role of anger and violence that results in cardio-vascular disease, intuitive comprehensions emerged some time before medical professional approaches and determinant research of Bar-On (1997).

More recent studies support the anger-coronary heart disease relationship. Rosenberg et al. (2001) examined the relationship between anger and coronary heart

diseases in 12986 males and females. Their findings demonstrated that the rate of risk for developing coronary heart disease was 2.2 times more in the group with high anger level than the group with low anger level. Increased anger levels in adolescence can be a predisposition for developing cardiac diseases in later life. In one follow up study performed on 1055 medical students, Chang, Ford, Meoni, Wang, and Klag (2002) found that people who were angry in their early adulthood had a greater chance of developing coronary heart disease or for developing premature myocardial infarction, 3.5 and 6.4 times respectively than the group with low rate of violence. Nevertheless, in a prospective study done on a major sample, Eaker et al. (2004) found that violence and anger can predict the cardiac conditions and mortality in men but this is not true with women (cited by Elias et al., 2001). For hypertension, Johnson-Frey et al. (2003) stated that most available evidence shows that anger suppression is one of the features found in patients with hypertension. Although analysis performed by Suls, Wan, and Costa (1995) demonstrated that anger effects on blood pressure were variable, in other analysis, investigators (Schum, Jorgensen, Vehaeghen, Sauro, & Thibodeau, 2003) concluded that unexpressed anger is related to the expansion of hypertension.

With regard to abovementioned issues, we can state that much experimental evidence indicated existence of a high relationship between anger and cardiovascular system deterioration. This evidence has been provided by epidemiological studies and experimental research. Epidemiological studies related anger and violence to cardiac malfunction and mortality, while laboratory works documented hypertension in predisposing people during reaction to conflicts and demonstrated that the more people get angry, the more are they at risk of developing cardiovascular system malfunction.

Anger and Emotional Intelligence

Anger is defined as the subjective experience that accompanies certain forms of aggression, and a state of psychological arousal that increases the probability of aggression. Anger can also be an alternate emotion and a natural emotional outcome response to pain of one form or another (physical or emotional). Anger can happen when people do not feel fine; they feel rejected, discouraged or deprived by experiencing some loss. The type of pain does not matter; the significant thing is that the pain experienced is unarguable because anger never occurs in isolation; it is necessarily preceded by painful feelings. Anger is often characterized as a secondhand emotion (Lazarus, 1993).

Anger arousal indicates that the particular appraisals often identified as causes of anger frequently only serve to affect the intensity of the anger generated. Research into effects of physical pain or other physically unpleasant conditions or involving social stresses suggests that decidedly aversive conditions are a major spur to anger (Scherer, 2001; Smith & Lazarus, 1993). A great many people are angry at one time or another. After surveying studies dating back to World War I, Averill (1983) concluded that "Depending upon how records are kept, most people report becoming mildly to moderately angry anywhere from several times a day to several times a week. Perhaps because this emotion is so common, specific definitions of this term often vary in detail (Averill, 1983; Kassinove, 1995).

In articles about anger, investigators inquiring into the development and functioning of emotions would do well to devote more of their effort to studying this particular affective state. Anger is a socially very important emotion, one that has attracted a great deal of mass media attention. It has received attention from various health fields, but it also presents emotion theorists with a number of intriguing conceptual questions. According to Watson, Wiese, Vaidya, and Tellegen (1999),

positive affect is typically associated with approach tendencies, whereas negative arousal is usually linked to an urge to avoid the instigating stimulus. Anger seems to be relatively unique in this regard and is often associated with approach rather than with avoidance inclinations (Harmon-Jones et al., 2003). Then too, research into the conditions for anger should also include the theoretical controversy as to whether emotions can be evoked independently of cognitions.

Relationship Between Stress and Emotional Intelligence

Stress and EI are two humanistic approaches, and are not independent from each other, like other physical and mental issues. The body and mind of man have permanent interactions. In some fields such as thinking, interaction between body and mind is maximized and in other fields such as the rehabilitation of an injured muscle, it is minimized. As two mental approaches, stress and EI are highly interconnected due to their common bases in the brain.

Anxiety is of certain significance in stress destructive effectiveness on any kind of mental performance. However, anxiety in one aspect is a useful deviated answer. A quite enthusiastic mental readiness against the threat is expected. However, when such mental concern is limited in an old procedure, which controls one's attention, then it is turned into a catastrophic cognitive state, which brings unwanted effects on all one's efforts for concentrating one's thoughts on another situation. Stress decreases wisdom. For instance, in the complex and with a mentally high responsibility and pressurizing task such as controlling air traffic, suffering from serious, chronic stress shall definitely result in failure to complete the training course or failure in one's career. A survey made in 1990 on air traffic control trainees indicated that those suffering from stress will potentially fail in practice, even if they obtain high grades on intelligence tests (Goleman, 2005).

Also stress causes disorder in any type of academic performance. Some 126 different studies on more than 36,000 people showed that the more vulnerable people are with respect to anxiety, the weaker their academic performance. The evaluation method used – test grades, total average or progress tests– did not affect the conclusion (Goleman, 1995).

When asking those vulnerable to anxiety to focus on cognitive work, such as classifying unknown objects into two categories, and explaining what is in their minds while working, it is observed that what is preventing them from decision making are the negative thoughts such as "I cannot do this task", "I am not doing well in the exam", and other similar issues. In case the anxiety of failing the test is influencing one's mind while taking the test, then one's focus on finding the correct answers will be decreased accordingly: our worries are changed into predictions, which come true, so that they direct us into the incident they had predicted.

On the other hand, those in control of their emotions may use predictable stress regarding the speech or exam they will do shortly, to motivate themselves for better readiness and eventually fulfill the same task well. Psychological classic literature has addressed the relation between stress and performance, including the mental performance, in a curve, on the peak of which there is an optimized relation between stress and performance, where the nerves are in balance, which causes considerable progress. However, quite low stress, that is, the ascending part of the curve, causes the person to be ignorant or less motivated for hard work to achieve desirable result, while high stress as represented by the other side of this curve, disturbs any efforts to perform good work (Goleman, 1995).

EI is considered as a set of qualifications and capabilities which enable us to have self-control and also be aware of others. In other words, EI is the intelligent use of emotions, and in the professional view, it means not to neglect our feelings and values

and know their effects on our behavior. By investigating the results of studies associated with EQ and its positive effects on individuals along with the necessity of focusing on the mental health of humans, we understand that the long term existence of stressing stimulus plays a role in almost all diseases, as the body becomes vulnerable against those microbes to which it used to be resistant. Mental pressures may decrease immune system efficiency, hence reducing protection against diseases (Bayram & Bilgel, 2008). Apart from that, the stressing factors may create a series of problems with respect to the emotional reactions, thinking, behavior and interpersonal relations (Lin, Lee, Hsu, & Lin, 2011), and may also result in stress, anger, guilt and depression. Confusion, difficulty in focusing and tangible thoughts about the stressing situation are also common. Behavioral signs may also appear such as tremors, apathy and carelessness about physical status, and personal contradictions and vulnerabilies that usually affect relations with others; some mental problems are results of stressing stimulus and are worsened by them.

Lazarus (1991) considered that in public the most common disturbing factors include: worries about weight, health status of family members, and economic problems; among students the most disturbing factors include concerns about wasting time, feeling pressure to achieve high academic levels, behavioral and financial worries, and loneliness.

The Solution Process as Advocated by EI

First of all we should understand what we feel and act in two ways, verbal and non verbal formats to make a relationship with our feelings. Also, we should understand others' feelings and act according to them. We should know that such emotions take priority in the thoughts (they become destructive in making certain thoughts), form the memory and generate different problem solving viewpoints, facilitate the duties (Smart

group); 80% of the achievements of people in society depend on their social or emotional intelligence, and merely 20% of it depends on cognitive intelligence and IQ (Goleman, 2005).

It is possible to predict one's situation in personal and social life by evaluating one's EI; five aspects are considered to evaluate EI, which include: maturity, sympathy, observation of ethical principles, being sociable, and feeling calm. One of the most complete scholars in this field is Bar-On (2002) who created the EI self-assessment questionnaire. Studies have proven that providing individuals with emotional and social training, which in other words is strengthening the EI, plays a major role in the success and progress in life and academic progress (Payton et al., 2008).

Bar-On (1997a) addressed a series of training, talents and non-cognitive abilities which increase one's ability for success against the pressures and environmental exigencies. Thus, EI is one of the important factors in determining one's success in life and directly affects one's mental health. The results of certain studies indicated that learning a way to overcome stress is effective in preventing diseases, and training in disease prevention methods helps in promoting mental health in society (Bern-Klug, 2010). EI includes both internal and external components. The internal components include level of self-awareness, self-esteem, feeling of independence and the ability for self- flourishing and decisiveness. The external components include: interpersonal relations, easiness in sympathy and responsiveness. Also EI includes one's ability to accept realities, be flexibile, the ability to solve emotional problems, and the ability to solve and oppose stresses and shocks (Goleman, 1995). Studies show that there is a relation between EI and the interpersonal problems of students (Besharat, 2007). There have been no exclusive major studies and surveys regarding the level of effectiveness of EI on stress. Several studies on the level of mental health in the different disciplines may be indicated, including a study about improving students' mental health via EI tests

(Aminiha Najafloy, 2004), whose results proved that the regression between mental health and EI is about 60%. The higher the EI, the better the mental health; also the same study proved that the three subscales of EI including realism, tolerating mental pressure and self-flourish determine some 67% of general mental health. These findings are aligned with other findings made in this field.

According to Ciarrochi, Deane, and Anderson (2002), EI plays a major role in understanding the relationship between stress and three components of mental health, including depression, failure and suicidal thoughts. In another study, Ciarrochi et al. (2002) concluded that some of the EI components protect people from stress and direct them toward a better path (Salovey et al., 1995). In a separate study, Ciarrochi et al. (2001) concluded that those with ability to manage their feelings enjoy high social support, and this protects them from being affected by depression and suicidal thoughts. Also Tudor (1996) has explored some eight mental health elements for promotion and mental health. The opposition, controlling stress, identity and self-consideration, self-respect, self growth, autonomy, change, social movement and support, promoting mental health shall be performed from different environments. The two substantial environments for social-mental health are the workplace and academic setting.

Clinically speaking, for instance the acting out behaviors may be named to fortify the EI in decreasing the patient's problems. From acting out conditions, people express their emotions freely, or react exaggeratedly for the unexpressed emotions. Thus, identifying the emotions and making relation with their feelings may be effective in adjusting their behaviors (Murphy et al., 2002).

Emotional Intelligence and Interpersonal Communication

Many of the elements outlined in this characterization are important concepts in an EQ framework. Bar-On (2002) lists interpersonal training as one of the main tenets

of EQ, while Goleman (2001) stresses the importance of vigilance in his achievement drive and initiative competencies. The ability to read and interpret body language is a central tenet of EQ, reflected in the social awareness branch of Goleman's (2001) model, in the interpersonal component of Bar-On's model, and in the emotional understanding branch of the Mayer and Salovey model.

Part of the prevention of potentially volatile situations is the ability to negotiate with others. In their development of exercises to be used in simulated negotiations, Ogilvie and Carsky (2002) integrated exercises to develop the EI of negotiators. They assert that the four branches of Mayer and Salovey's model of EI are directly applicable to negotiations. Negotiators who can recognize emotions in themselves and others can better understand the reasons behind these emotional responses, leading to better outcomes in negotiation. Understanding how emotions change is also important as a series of positive and negative emotions are experienced during negotiations. Lastly, EI can also benefit community-based correctional service workers. In a study of the characteristics of the most effective probation officers, Andrews and Kiessling (1980) found that parole officers who scored highest on measures of interpersonal sensitivity (empathy) and socialization also reported the highest levels of satisfaction with their supervision in terms of the quality of the relationship they established with probationers. They were more likely to be prosaic in their verbal expressions, more likely to approve of probationers' prosaic expressions, and were less likely to direct non-contingent or gratuitous expressions toward probationers. Finally, these probation officers produced probationers who had higher levels of respect for the law, court, and police and lower levels of reoffending rates. These two characteristics, empathy and socialization, are cornerstones of EI. They are listed as sub-components of interpersonal EQ by Bar-On (2005), and as a social awareness competency by Goleman (2001), and included under the emotional understanding branch of EI by Mayer and Salovey (1997). Socialization

is built on the ability to share one's emotions while understanding the emotions of others. Clearly, EI is an important factor in the success of correctional service workers, whether inside or outside an institutional setting.

Preventing Problematic Behaviors: Aggression

In this field, the preventive programs are specifically used for problematic behaviors such as smoking, drug abuse, aggressive actions, and implemented suitably for the different stages of life. These programs should match and suit the initial preventive programs of the school. As an example the aggression prevention program is discussed here. As Noguera (1995, cited in Elias et al., 2001) stated, preventing aggression is even more important than academic achievement, which is the greatest aim of educational corrective interventions. In preventing aggression, two approaches can be named. The first approach: "the Resolving Conflict Creativity Program" (RCCP) designed by Lantieri, trains all students in attempts to resolve the arguments and challenges in school that serve as the sources of increased aggression. In this program students learn how to categorize their feelings, how to name and define them, how to show empathy for others' feelings and how to defend their rights without aggressiveness. The second approach, which is generally based on general training in order to prevent aggression, is called "Positive Adolescence Choice Training" (PACT). It is the result of an important research background which proves that aggressive children and adolescents lack interpersonal training, programming, aggression management and other psychological training. This program helps adolescents make non-aggressive choices in irritating situations.

Relationship Between Learning and Emotions

In the past decade, studies have explored different learning theories that frequently focus on behavioral, emotional, and cognitive aspects. But the axis of the

recent research is based on deep understanding of different points of view (such as brain neurology, psychological researches) that believe meaningful and viable learning is a great personal phenomenon (McCombs, 2004). The studies related to the brain (e.g., Diamond & Hopson, 1998; cited in McCombs, 2004) indicate that even very young children possess enough capacity for complex thought. These researches also show that affection and cognition work cooperatively. Furthermore, emotion activates attention, learning, me mory and other brain activities.

Mayer and Salovey (1997) mentioned that for centuries psychologists believed that the mind consists of three parts: (a) cognitive (including thought), (b) affective (including emotion), and (c) motivation (or conduction), and related intelligence is the result of mixing the concepts of different portions, judgment, reasoning, and abstract thinking. Love and Guthrie (1999) stated that only during the last decades has scientific research concentrated on the effects of emotional abilities on learning. The recent studies imply that emotion and intelligence are inseparable in learning (e.g., Elias et al., 1997) and also EQ is important in the correlation of humans and health (e.g., Seligman & Csikszentmihalyi, 2000; cited in McCombs, 2004).

As Salovey and Mayer (1990) stated, emotions are organized responses that start cognitive activities flexibly and control the actions. Emotions serve to equip individuals with precious information about themselves necessary for cementing relationships with others. Based on Mayer and Geher's (1996) theory, people whose emotions and thoughts are unified can listen to the emotional definitions of their thoughts better than others and understand the others' emotions by listening to them. One's ability to recognize one's emotions and relationships and reason and solve problems based on it, as Mayer, Salovey, and Caruso (2000) have proven, is the result of having high EQ. A combination of emotion and intelligence and their effects on decision making relates these concepts to the learning process.

Despite the fact that some individuals are unable to categorize the development of the student's emotional life in the list of responsibilities during the special training, Elder (1997) believed that this attitude fails in facing the undeniable fact that students get connected to learning emotionally because students have emotions about what happens in the class. Therefore, at least a part of this emotion controls the way they interact in class. Elder (1997) asserted that this causes cognitive intelligence to tolerate being exposed to negative and positive emotions and can be a good criterion for realizing to what extent our emotional responses are based on logic.

Naturally, the phenomenon of logical emotions can end in the appearance of logical needs and predictable behaviors because awareness of our emotions, and the forthcoming judgment about the source of those emotions, is one of the important tools of learning and change (Coghlan, 1993). posited that feelings, whether they are distorted, unwilling, or inadequate, all affect the learning process. These emotional feelings effect a person's experience; furthermore, learning processes also result from a persons's experiences. Thus it can be said that the final learning is the product of experience.

Now, if emotions are important in the learning process, are they still important in the students? Can we increase the EQ of students by helping them to understand that their emotions manage their anger, manage their stress, and monitor their interpersonal communication patterms? These are all a part of the questions addressed in this research.

Need Theories

According to learning theorists, individual differences are the result of learning. But how do such differences arise? Is our destiny as individuals simply the result of being in the right place at the right time? Surely, the orderliness of the universe is due to

something more than the whims of reinforcement. Consider siblings who grow up to be very different. How can that be if they have been exposed in the family to similar types of reinforcement and similar information? An obvious way to view individual differences is to argue that we are born with them. Need theory is an outgrowth of the idea that the energy, direction, and persistence of behavior are due to the existence of needs (Anderson, 1988).

Social Learning Theory

The social learning theory proposed by Albert Bandura (2001) has become perhaps the most influential theory of learning and development. While rooted in many of the basic concepts of traditional learning theory, social learning theory holds that direct reinforcement could not account for all types of learning.

Bandura's theory added a social element, arguing that people can learn new information and behaviors by watching other people. Known as observational learning (or modeling), this type of learning can be used to explain a wide variety of behaviors.

Basic Social Learning Concepts

Three core concepts constitute the heart of social learning theory. First is the idea that people can learn through observation. Next is the idea that internal mental states are an essential part of this process. Finally, this theory recognizes that just because something has been learned, it does not mean that it will result in a change in behavior.

Bandura identified three basic models of observational learning:

1- live model, which involves an actual individual demonstrating or acting out a behavior.

2- verbal instructional model, which involves descriptions and explanations of a behavior.

3- symbolic model, which involves real or fictional characters displaying behaviors in books, films, television programs, or online media.

Intrinsic Reinforcement

Bandura (2001) noted that external, environmental reinforcement was not the only factor to influence learning and behavior. He described intrinsic reinforcement as a form of internal reward, such as pride, satisfaction, and a sense of accomplishment. This emphasis on internal thoughts and cognitions helps connect learning theories to cognitive developmental theories. While many textbooks place social learning theory with behavioral theories, Bandura himself describes his approach as a "social cognitive theory." Learning does not necessarily lead to a change in behavior. While behaviorists believed that learning led to a permanent change in behavior, observational learning demonstrates that people can learn new information without demonstrating new behaviors.

The Modeling Process

Not all observed behaviors are effectively learned. Factors involving both the model and the learner can play a role in whether social learning is successful. Certain requirements and steps must also be followed. The following steps are involved in the observational learning and **modeling process:**

Attention

In order to learn, you need to be paying attention. Anything that affects your attention is going to have a negative effect on observational learning. If the model is

interesting or there is a novel aspect to the situation, you are far more likely to dedicate your full attention to learning.

Retention

The ability to store information is also an important part of the learning process. Retention can be affected by a number of factors, but the ability to pull up information later and act on it is vital to observational learning.

Reproduction

Once you have paid attention to the model and retained the information, it is time to actually perform the behavior you observed. Further practice of the learned behavior leads to improvement and skill advancement.

Motivation

Finally, for successful observational learning, you have to be motivated to imitate the behavior that has been modeled. Reinforcement and punishment play an important role in motivation. While experiencing these motivators can be highly effective, so can observing others experience some type of reinforcement or punishment. For example, if you see another student rewarded with extra credit for getting to class on time, you might start to show up a few minutes early each day.

Final Thoughts

In addition to influencing other psychologists, Bandura's social learning theory has had important implication in the field of eduction. Today, both teachers and parents recognize the importance of modeling appropriate behaviors. Other classroom strategies

such as encouraging children and building self-efficacy are also rooted in social learning theory.

In addition to education programs, social learning programs are frequently used in correctional interventions (Van Voorhis, 2000). According to Van Voorhis (2000), social learning approaches often integrate tenets of behavioral therapies, but the emphasis is on modeling or providing participants a means to observe and imitate the goal behaviors of the therapy. In the available meta-analytic reviews, social learning models are also referred to as life skills training (Garrett, 1985; MacKenzie & Hickman, 1998) intensive structured skills training (Andrews et al., 1990), skill oriented approaches (Lipsey, 1992), and modeling/role playing (Antonowicz & Ross, 1994; Gendreau, 1996; Gensheimer, Mayer, Gottschalk, & Davidson II, 1986). In addition, Gensheimer et al. (1986) conducted a meta-analysis of social learning treatments in the juvenile justice system, citing not only modelling as an intervention, but also behavioral approaches such as token economies, behavioral contracting, and positive reinforcement. The inclusion of behavioral treatments provides evidence of the overlap between social learning and behavioral programs. In summary, social learning programs are widely used because of their efficiency, cost-effectiveness, and researched effectiveness (Van Voorhis, 2000).

Counseling Theories

The client-centered theory

This theory was developed by Carl Rogers 1951. Emphasizing here and now, the client-centered counseling makes the client aware of his current feelings and behavior, and helps him try to change them in a desirable and acceptable manner on his own. According to Rogers, human beings are basically sociable, realistic, progressive towards

development and evolvement, purposeful, and trustworthy. They can blossom out in case the proper conditions are met; at the same time, they are seriously in need of attention and the feeling of being useful. If these needs are fulfilled, they will be content and satisfied. According to Rogers, humans are free but at the same time are responsible, because freedom without responsibility leads to chaos.

Core conditions of client-centered counseling

According to Sharf (2010), the three core conditions of client-centered counseling are: The counselor must understand client speech and feeling as expressed; the counselor must have unconditional positive regard, meaning unconditional respect for clients and consideration of their thoughts and feelings; and lastly, have empathy which refers to the counselor himself in his relation with the client (Sharf, 2010).

Rational-Emotive Theory

This theory was proposed by Albert Ellis (1957). According to this theory, human beings have an innate powerful tendency towards thinking both rationally and irrationally; cultural factors in general and family values and education in particular intensify the irrational thinking and make the individual anxious; anxiety is caused by the integration of an individual's irrational thinking and belief system; being aware of the impact of numerous factors from the past on anxiety creation is not enough for making the desired changes.

According to the followers of rational-emotive theory, clients must basically learn to minimize irrational desires and expectations. They must also avoid dogmatic judgment about different issues and increase tolerance against failure. Finally, the clients need to continue life based on reasoning.

The rational emotive counseling aims at minimizing or eliminating the clients' irrational thoughts and their belief system.

Treatment Methods According to Followers of Rational-Emotive Theory:

The following are treatment methods based on Rational-Emotive Theory:

In emotive therapy, counselors establiah a relationship with clients, accompanied by the feelings of security and trust, is necessary for evolving his irrational thoughts and his belief system.

Under cognitive therapy, the clients are made aware of their irrational desires and expectations, and understand that they are required to let themselves be free from inappropriate insistences, musts and shoulds to get rid of anxiety.

Using behavioral therapy, clients learn to get rid of irrational beliefs through role-play, modeling, joking, and organized desensitization (Sharf, 2010).

Reality Therapy

Developed by William Glasser,(1984). Reality Therapy is based on the view that all people with different cultures have a unique psychological need, named identification, throughout their lives. In addition to understanding their uniqueness and difference from others, all persons must establish a meaningful relationship with their identity and consider themselves as the one having either a successful or unsuccessful identity according to their relationships with others (Glasser, 1992).

The Reality Therapy Method

1. The counselor accepts no excuse for the client's irresponsible behavior.

2. He makes the client familiar with right and wrong behavior, emphasizing the client's current behavior.

3. The clients are helped to take responsibility for their own behavior.

The Steps of Counseling Through Reality Therapy

The steps of counseling through reality therapy are given in the following:

First, is "establishing an emotional relationship" whereby the counselor must show intimacy, love and interest towards the client, and participate actively in the counseling process as a sincere person.Then, "emphasizing current behavior, not the feelings" where the counselor helps clients to become aware of their behavior, change it, and feel more content. All of these result in a successful identity.

Next is to emphasize the present or "now." In reality therapy, what happens currently is emphasized because the past events are gone and making changes in them is impossible. Only the current and future conditions are changeable.

This is followed by "judging the behavior" in which clients must judge their behavior and evaluate the activities leading them to failure. Then, with this awareness the client and counselor devise a plan; through a useful and applicable plan, the counselor helps the client to transform unsuccessful behaviors to successful ones.

Once the plan is devised the client must be obliged to commit to put the plan into action. To do this effectively, the counselor must make clients understand that "no pretext is acceptable."

The last step in reality therapy is related to punishments; each negative and scornful remark from the counselor is regarded as punishment (Sharf, 2010).

The Individual Psychology by Adler

The individual psychology has a holistic view towards a human being and emphasizes the personality unity (Adler, 1989). Some of its viewpoints are as follows:

The major part of individuals' personality is formed during early childhood; however, people can create themselves later.

Some opportunities for selecting the specific individual beliefs and behavior are created in adolescence through going beyond the past, becoming more aware of the present, and setting goals for the future.

Regarding the personality concept, Adler emphasized human wholeness. He emphasized the personality unity and considered it as originating from a special cultural and family context developed through the individual's attempt for a valuable purpose in life. The societal context is highly influential in social development and this development cannot be understood without its effects. Hence, the human relation role is much more important than internal psychological dimensions in personality formation.

Adler contributed greatly to counseling. Some of his outstanding ideas are societal interest and birth order. Societal interest, for example, refers to the human need for experiencing the feeling of belonging; an emphasis on belonging and attachment to humanity. Birth order suggests that the psychological and time order of children, influencing their behavior and perhaps, their understanding of themselves and their surrounding world (Sharf, 1994).

This research has its theoretical basis in Adler Group Counseling interventions used to teach anger management, stress management and interpersonal communication skills. The books by Motaby and Fathey (2006a, 2006b, 2006c) from which the group counseling sessions in this study were taken, describe the Adler Group Counseling approach for anger management, stress management and interpersonal communication skills training.

Background of Study (International)

Many studies have examined the relation between stress and the socio-emotional potentials. Schutte et al. (2001) reported that the range of EQ (using the Assessing Emotions Scale, IES) at the beginning of the school year can predict the freshmen's GPA at the end of the year significantly (r = .32).

Studying the relationship between EI and anger is a challenging field and the research around this subject mostly has produced inconsistent results. Barchard (2003) did a study on a 150 student sample with an age range of 21.5; some 94 of them were female. In about two months he performed 31 scales in EQ, 12 in cognitive capabilities, and 23 scales in personality. In the first phase of analysis he studied the capacity of each item to predict anger and its improvement using multiple regressions by taking advantage of all the instruments; so each field was considered as a separate set. Next, he studied the instruments within each field in order to find the most useful for predicting academ158ic achievement. To do this, two statistical methods were used: (a) correlation between each predictor and academic achievement and (b) increase of the square of multiple correlation coefficients. Then, he selected the best predictors to find out whether EI can predict academic achievement, as in other fields. He found that the field of cognitive capability and personality are more successful in predicting academic achievement. In other words, when only one instrument is used some of the EI scales (especially emotional understanding scales) can be used in predicting academic achievement. But if these measures are dependent on cognitive capabilities and personality characteristics, they cannot improve prediction of academic achievement.

Barchard (2003) refers to two research studies in academic achievement that studied the procedure of the EI predictor and both of them used their own self-rating scales. In the first study, Swart (1996) noted some logical differences in the total EQ-I scores of the academically successful and unsuccessful students, by considering the

annual scores. In the second study, Bar-On (1997) found logical differences in the self-reported success among the successful, average, and unsuccessful military freshmen students in all 15 subscales of EQ-I. In none of the two studies was the effect size measured.

Some of the studies (Gough, 1993; Tenopy, 1967, cited in Barchard, 2003) have revealed that social intelligence is the academic achievement predictor. Wong et al. (1995, cited in Barchard, 2003) found that social perception (the ability to understand others' emotional situations) among the university students works as a predictor of academic achievement by using GPA as the academic achievement index. On the other hand Newsome, Day, and Catano (2000) found a small relation between academic achievement and socio-emotional competence. Parker et al. (2004) assert that these contradictory findings could be the result of cognitive method problems. In their opinion some of the research concentrated on a limited range of capabilities (e.g., social perception or operational intelligence) or gave emphasis on anger in a very limited time span. This is also true of the research by Newsome et al. (2000). Their selected sample group was a non-homogeneous mixture of full time and part time students, young and old students, and junior and senior students. No doubt, full time and part time students experience different challenges and tensions uniquely based on the academic route that they undertake. Younger students worry about their marks, the quality of their studies and acceptance from their peers, whereas older students are concerned about financial matters.

Bar-On (2003) asserted that EI levels increase from early adulthood to middle age so students who have recently graduated from high school have a different rate of EI as compared to the older people who are accepted as expert students in the university context.

Parker and colleagues (2004) concluded that prediction of academic achievement, considering the EI variables, provides the results of the findings of Nelis Quoidbach, Mikolajczak, and Hansenne (2009) divergence based on the way the predictor variable becomes operational. When the relationship between EI and academic achievement is studied by using the whole sample group, the similar correlations' model will be as well, as Newsome et al. (2000) reported. In both studies the total score of the short version of EQ-I were weak predictors for academic achievement.

Furthermore, Parker et al. (2004) mentioned that anger is strongly related to some aspects of EI (intrapersonal abilities, compromise, and control) which was measured at the beginning of the school year. Generally, these variables can help the successful freshmen (82% of successful students were correctly identified) in terms of anger be differentiated from unsuccessful students (91% of unsuccessful students were identified correctly).

Zins and Elias (2006) explored the relationship between EI and stress. The correlation between EI and stress was found to be statistically significant. Although there was a correlation between higher EI and higher life satisfaction and between lower anxiety and higher capability in problem resolution and better conceptualized checking, after checking the effect of cognitive abilities and personality, the covariance between EI and life skills training was 6% or lower.

Finally, in two other studies (Parker et al., 2004) EI was found to be strongly correlated to anxiety. In the study of Parker et al. (2004) the EQ-I questionnaire (Bar-On, 2002) youth version was used. Anxiety was highly correlated to some aspects of EI and this construction is a powerful predictor for anxiety. The students in the excellent level possessed higher levels of interpersonal abilities, adaptation, and stress management compared to the other two groups. Also the students in the average level

had higher marks in these variables than the group with anxiety problems. These findings were congruent with the results reported by Elias et al. (1997) as well as Zins and Elias (2006).

Parker et al. (2004) performed the short version of EQ-I on 372 full time freshmen students. After studying the year-end marks, the results showed a very strong correlation between the aspects of EI such as intrapersonal component, adaptation component, stress component and the year-end marks.

In all of these approaches positive effects on anger are seen, especially those approaches that made the teachers learn and use effective teaching methods; 83% of these programs affected academic achievements. Besides, 12% of these programs influenced anger without targeting it directly.

The Javelina Emotional Intelligence Program was developed by Texas A&M University, Kingsville, and the university received a national award from the American College Personnel Association (ACPA) for the program's development. The emotional intelligence curriculum is taught in each of the university's undergraduate academic colleges and focuses on self management, goal attainment and personal responsibility. The researchers indicated that students who completed the program had higher grade point averages (GPAs) and higher levels of retention than students who did not complete the program (Boyle, 2003; Low & Nelson, 2005). It is important to note, however, that this data is unpublished and has not been peer- reviewed.

Nelis et al. (2009) conducted one of the only peer-reviewed studies to date that used a controlled design to measure the effectiveness of an emotional intelligence training program on improving emotional intelligence levels in young adults. The authors developed an intervention program focused on four emotional intelligence dimensions (understanding emotions, identifying emotions, expressing and using emotions and managing emotions). The results demonstrated that students in the

training group were significantly higher in overall levels of emotional intelligence, as well as in emotional identification and emotion management, than student who did not participate in the training program.

Schneider et al. (2011) did a study on the relationship between student-faculty interactions and student dropout intentions. They developed an integrative model positing that the association between the frequency of student-faculty interactions and a student's intent to stay in college is positive, and becomes more positive as faculty EI increases. Patterns of student attrition intentions are observed across different levels of faculty engagement and within and between high and low emotionally intelligent faculty groups. Findings revealed that frequent student-faculty exchanges significantly impact a student's desire to stay in college and that student faculty interactions predict student attrition intentions more strongly for those students assigned to faculty mentors who possess higher levels of EI than for those assigned to faculty with lower EI scores.

Background of the Study in Iran

Ahmad Malshi Pour (2011) did a study on the role of emotional intelligence training on social and academic compatibility high school students of Iran 2011 - 2012. The study was a quasi - experimental pre - post design involving two groups of high school students. The experimental group was exposed to eight days on an hour to an hour and half sessions of emotional intelligence training, while the control group was only given pre - post questionnaires. ANCOVA analysis results among the groups showed that the training program was effective in significantly raising the level of emotional intelligence, but the improvements of social and academic compatibility were not significant.

Research conducted by Esmaiel Sadri (2009) on the relationship between EI and social adjustment on male and female students in a public university of central Tehran had the following results:

1- There is a positive and meaningful correlation between EI and social adjustment.

2- There is a meaningful difference between female's EI scores and those of males in a way that girls' scores are higher than boys'.

3- There is difference between male and female social adjustment, and girls are more compatible with society than boys.

Faraghdani (2004) investigated the role of emotional intelligence and angermanagement in 200 female university students. According to the results of this study there was a meaningful and direct correlation between EI and *anger management* of female students.

Another research project was carried out by Abdi and Sharifi (2008). The relationship between EI and feeling anger of Roudehen University students showed that a meaningful relationship existed between anger and EI of female students (Higher levels of anger and anger expression was an outcome of lower levels of EI).

1- All of the adjustment factors (family, health, emotional, except for occupational) can predict EI.

2- General adjustment and EI can control anxiety.

3- Adjustment factors differed in two high anxiety and low anxiety groups. Those individuals who had high anxiety showed less adjustment.

4- EI differed in two high and low anxiety groups and those who had high anxiety achieved lower intelligence scores.

Khosro Javid's (2005) research results also show that there is a meaningful negative correlation between EI and functions such as alexithymia and depression and anxiety.The comparison of both sex averages showed that there is a meaningful difference between males and females in their EI and the second factor which is measurement of emotion.

Shokouhi Yekta, Zamani, and Parand (2008) had conducted a test of EQI on students of governmental universities located in Tehran. Based on their findings between boys and girls EI in the total score and factors of self awareness, self control and empathy was statistically meaningful. But in factors of self care and social training between the average of married and singles scores in their total score on anxiety tests, no differences were observed. Also in this research, a positive correlation was noticed between EI and educational advancement.

Faraghdani (2004) directed a research study on the relationship between educational improvement and different types of dilemmas and EI in Tehran university students which clarified that men and women do not have any difference in total EI.

Afsha Niakan (2004) in his research in al-Zahra university compared between emotional adjustment, social and educational adaptationamong male and female students and found a meaningful difference between educational and emotional adaptation of students but observed no difference between general and social adjustment of boys and girls.

In research conducted by Ahankoub (1993) on the educational performance and social adaptation of Ahvaz school students, no difference was found between boys and girls in their emotional and social adaptation.

Research conducted by Zamani Forushania and Besharat (2011) on the relationship between emotional intelligence and perceived stress among female university students has shown that students of low EI get higher scores in stress.

In research conducted by Pourakbar (2007), *The role of emotional intelligence training in academic achievement in students of high school* in a research project studying the affect of predicting EI and educational success found a meaningful correlation between EI and academic achievement.

Dehshiri (2003) did a study on the validity of EI questionnaire EQI–the results of a *t*-test on different scores of EQ-I among male and female students andshowed that among these groups there is a meaningful difference in the score of EI, and girls meaningfully had higher EI scores.

Dehghan (2007) who did a study on the role of emotional intelligence training in academic achievement in high school students found that EI had a significant correlation with educational success. Aghayi (2005) did a study on therelationship between EI to adaptability in university studentshas shown that students with high EI schievehigher scores on adaptability. Besharat (2007) who studied the relation between EI and interpersonal problems of studentshas shown that students who obtained high scores in emotional entelligence attain higher scores in empathy.

As shown by Eftekhar Sa'adi . (2010), in a study on training in anger control for improvingemotional intelligence,significant improved students' emotional intelligence was found aftertraining in anger control.

Jafari Tossi (2007) who investigated the effect of Emotional Intelligence training on academic achievement of students has shown that Emotional Intelligence training can improvestudent academic achievement.

Naqdi, Adib Raad, and Nuranipur (2010) in their study on the effect of anger management training on Emotional Intelligence, showed that anger management training caused increase in students' emotional intelligence.

For the present study in Iran, the following resources from the literature are most relevant:

Training Books

Two professors in education, Jafar Bolhary and Atefeh Khoshnavaz, assisted in the design of five main skills as the model of life skills (WHO, 1996) and classified them in the following five groups: Interpersonal relationships, coping with stress, problem solving, decision making and anger management training. This served as the basis for the preparation of Tehran Province Welfare Organization and UNICEF Organization, branch of Iran and the Office of International Studies of the Ministry of Education to implement such as program.

For this study interpersonal relationships, coping with stress, and anger management training were included in homework books, written by Motaby and Fathey (2006a, 2006b, 2006c), with references from UNICEF (2003); WHO (1996); Stevens and Stevens (2000) and Timberlak (2000), and used as a life skills model for university students; the book was published by Danzhh and Amazon Persian book. The three workbooks used for the experimental groups will be discussed in the next chapter.

Chapter Summary

This chapter discussed the Theoretical Trends in the EQ Concept Introduction to Expression of the EQ and the personality- social viewpoint, Theoretical Scope of EQ and Multiple Intelligences, theoretical aspects of the Bar-On Model, explanation of tools used to make a Bar-On model on Impulse control and EI; Social Thinking and Behavioral Violence, position in the primary studies, Emergence of Violence Concept in Psychological Research, Violence in the field of health psychology, among others. It also gave the background on research in emotional intelligence in Iran and overseas. The next chapter will explain the research methodology of this study.

CHAPTER 3

METHODOLOGY

Introduction

This study was an exploratory and quasi-experimental study with respect to improving the emotional intelligence (EQ) of university students. This study also explores the nature of change in the three variables based on acquiring the training skills of anger mangement, stress mangement, and acquisition of interpersonal communication skills. This chapter describes the methodology of the present study. This chapter addresses the following: research design and rationale for choosing this design, sample selection process, procedure for collecting data, and data analysis.

Research Design

This study employs a quasi-experimental design.

The assumption of causality can be tested because control of alternative explanations is high. The sample is randomly selected from the population, the independent variable is systematically manipulated, participants are randomly assigned to groups, and a pre-test and post-test and control group establishes a baseline to ensure that effects are linked to the manipulation. In order to address research questions, quasi experimental design was applied (Creswell, 2008). Some 120 students were selected randomly and divided into four groups randomly (three experimental groups and one control group). Participants were divided into four groups each composed of 30 people; three of these groups were given training and one group participated as the control group (30) who are registered and present for pre- and post-test in commencement and finishing of the other three classes training workshops. The study population is all first year female students of Roudehen Islamic Azad University.

Before carrying out the experimental intervention (presentation of the independent variables), the four groups were given the pre-test using the Emotional Intelligence questionnaire (EQI). Then, the students in experimental groups attended five 2-hour training sessions of anger management, five 2 hours training sessions of stress management five 2-hour training sessions of intrapersonal communication techniques respectively. One week after the intervention, the four groups were post-tested again using the EQI.

In this study the EQI Inventory-revised was used for the pretest and posttest. Finally, the results of the pretest and posttest was compared in each group and was compared with the results of the other groups.

Research Objectives

The current research was designed to achieve the following objectives:

1. To determine the effect of anger management skills on the students' EQ.
2. To identify the influence of stress management skills on the students' EQ.
3. To find out the effects of training interpersonal communication skills on students' EQ.
4. To identify which training has greater effects on students' EQ.

Research Questions

Based on the research objectives, the following research questions were posed for the present study:

1. Does anger management training have an effect on the students' EQ?
2. Does stress management training influence the students' EQ?
3. Does interpersonal communication training affect the students' EQ?
4. Which training has greater effects on students' EQ?

Research Design

Based on the research objectives and reserach questions, the research design for the study is given in the folowing Table 3.1

Table 3.1
Research Design for the Study

Pretest	Groups	Posttest
EQI	anger management	EQI
EQI	stress management	EQI
EQI	communications	EQI
EQI	Control	EQI

Population

The statistical population of this study is from the Islamic Azad University - Roodehen (Iran), in the Bachelors levels of faculty, both in education and psychology who have enrolled in the first semester (female new students of 2010- 2011). The students of Azad University and the sample were chosen from those registered for the first semester of their Bachelor's degree course, with a total of population for the 2010-2011 academic year first semester at 3,434.

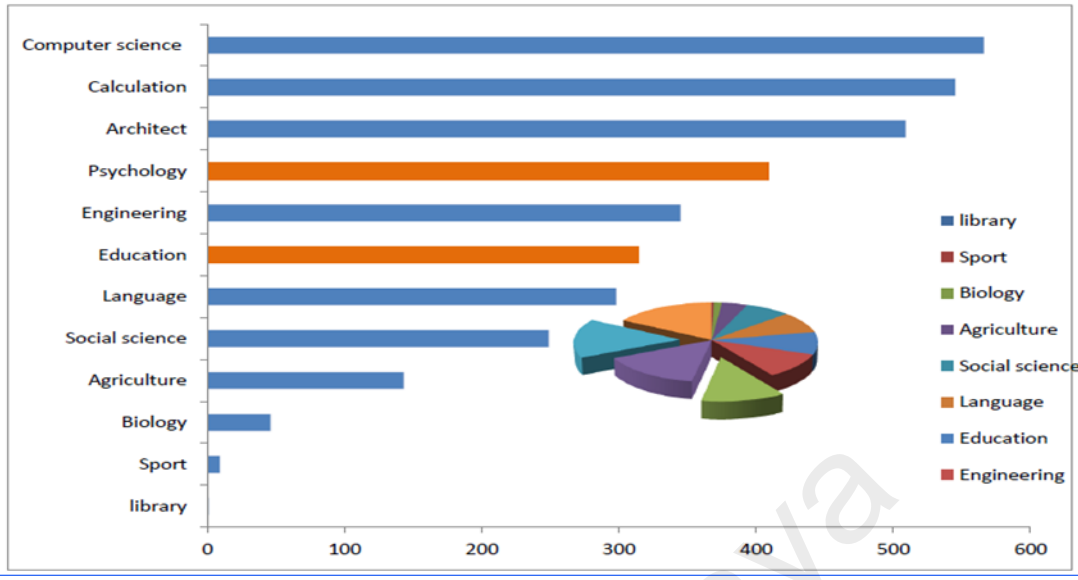

Figure 3.1. Statistical population distribution.

Sampling

For this study simple random sampling was used.

First the participants are selected for the sample so that any individuals have an equal probability of being selected form the population. For this study 120 students were chosen randomly (the names were drawn from a hat).

All of the 120 students of these majors answered the (EQ-I) questionnaire. The students were divided into four groups randomly as follows: thirty (30) of them were put into the stress management group, 30 students were put into the anger management group, and 30 students were placed in the interpersonal communications group, while 30 of the students were chosen at random for the control group.

Variables

Dependent variables from the treatment group of students' EQ-i assessments included the overall emotional intelligence score. The anger management, stress management and interpersonal training skills were independent variables within the design.

Instrumentation

This section describes the Emotional Quotient Inventory (the EQ-i) which has played an important role in making the Bar-On model. It is important to stress that the this model is operationalized by the EQ-i.

The EQ-i is a self reporting measurement of emotionally and socially intelligent behavior which gives an estimate of emotional-social intelligence. It was the first measure to be presented by a psychological test publisher and was the first measure to be reviewed in the "Bouros Mental Measurements Yearbook" by Plake and Impala in 1999; therefore, it is the most popular used measure of emotional social intelligence. The Bar-On EQ-i technical manual presents a description of psychometric aspects of this measure and how it was made. It is also available in Glenn Geher's recent book,"Measuring Emotional Intelligence".

There are 133 items in the EQ-i. They are short sentences with responses ranging from "not true for me" to "true for me or of me." This test takes almost 40 minutes to complete and is suitable for those aged 17 and older.

It results in a total EQ score and sub scores are derived from subscales as follows here:

1. Interpersonal
2. Intrapersonal which includes self regard, emotional self awareness, assertiveness, independence and self actualization.
3. Stress management including stress tolerating level, and impulse control.
4. Adaptability, testing reality, flexibility, and ability to solve problems.
5. General mood, which consists of optimism and delightfulness.

The scales of this test include the following:

1) Emotional self-awareness (ES): the ability of being aware and understanding of oneself.
2) Self-regard (SR): the ability to express one's feelings, beliefs and frank thoughts and defending one's useful and rightful training.
3) Self-esteem (SR): the ability to be aware of one's self understanding, self-acceptance and self-respect.
4) Self-actualization (SA): the ability to understand the potential capabilities and what may be done, strive to perform and enjoy.
5) Independence (IN): the ability to direct one's self thoughts and actions and being free from tendencies.
6) Empathy (EM): the ability of being aware and understand somebody else's feelings and valuing the same.
7) Social responsibility (RE): the ability of expressing one's self as a member enjoying the effective and useful sense of cooperation in the team.
8) Interpersonal relationship (IR): the ability to generate and keep the mutual satisfactory relations which are recommended by sensual closeness, friendship, being kind and accepting others' kindness.
9) Reality testing (RT): the ability to measure the harmony between something experienced emotionally and something really existed.
10) Flexibility (FL): the ability to have compatible thoughts and behavior with environmental changes and situations.
11) Problem solving (PS): the ability to identify and define the problems as well as creation and achievement of the effective and potential solutions.

12) Stress tolerance (ST): the ability to tolerate against the events, stressful occasions and strong emotions, without backing off or positive and active stressful confrontation.

13) Impulse control (IC): the ability to tolerate an impulse, or experimental activities or reducing the same, as well as the ability to control one's self emotions.

14) Optimism (OP): the ability to cope with life and fortification of positive views, even in case of occurrence of miseries and negative feelings.

15) Happiness (HA): the ability to feel happy in life, enjoying one's self and others, having positive and refreshing feelings.

Instrument Reliability and Validity

The EQI is evaluated and measured. To do this, the examinee reads each statement, checks his/her consistency or inconsistency with described qualities on the Likert Scale (never, seldom, sometimes, usually, and always). This questionnaire has been designed such that people older than 17 can answer it and since some people like to present merely negative or merely positive answers, the EQI collection has been selected to be varied (some positive and some negative answers) so that unauthentic answers of the examinees are avoided. Each question receives a score of 1 to 5. In positive questions the answer "always" gets a 5 score, the answer "usually" gets 4, "sometimes" gets 3, "seldom" gets 2 and "never" gets 1. In negative questions the answer "always" gets a 1 score, the answer "usually" gets 2, "sometimes" gets 3, "seldom" gets 4 and "never" gets 5. As a result, higher scores indicate a high and healthy EQ, while the lower scores indicate a weak and low ability and EQ.

The subscales of EQI for internal consistency were evaluated by Bar-On and Parker (2000) using the Cronbach alpha method. The internal consistency of 15

subscales is .50 which shows a high internal consistency among predicted factors. The subscale of optimism has the highest degree of internal consistency with other factors. The high relation between optimism and pressure tolerance (.76) indicates that optimism is an important factor in the individual's ability to resist pressure and can be an important facilitator for EQ. Also, the average of validity coefficients after three months, obtained by retest method was .66.

The results of construct reliability of EQ-I with Beck Depression Inventory, Minnesota Multiphasic Personality Inventory, NEO-Five Factor Inventory, Cattell's 16 personality factor questionnaire, SCL-90 checklist, and Eysenck Personality Inventory (1970) confirmed the high reliability of this questionnaire.

Standard scores of EQ-I which are calculated for each scale and each subscale have an average of 100 and a standard deviation of 15. Most of the examinees (almost 68%) get a score of plus/minus 15 of the average (that is a score between 85 and 115). The examinees whose total score is lower than 70 or higher than 120 are obviously abnormal and should be studied with more precision.

Reliability and Validity of the Bar-On EQ-I in Iran

This questionnaire has also been evaluated in Iran regarding mental health issues. Dehshiri (2003) reported a reliability coefficient of .75 for the test, and regarding the validity, he reported eight factors out of a 13-factor structure of the North America samples to be valid in the Persian tests.

The Farsi version includes 133 short-question items used herein in this study; Reliability and Validity for this study was was .85

Model of Training

A social learning model was used for this study. According to social learning theory, information can account for the source (energy), the direction, and the persistence of behavior. These studies demonstrated that by observing others, individuals can often determine ahead of time what actions will bring pain (punishment) and what actions will bring satisfaction or reinforcement (Berkowitz, 1990).

Moreover, individuals can learn not only to avoid making certain mistakes but also to design an optimal course of action for achieving desired ends. Social learning theorists were able to explain a wide range of behaviors that had no immediate survival value (Bandura, 2001).

This method provides an opportunity so that the individual's ideas and opinions may be accepted without any criticism and be respected through brainstorming, group discussion, questioning and role playing.

Brainstorming

Brainstorming is a creative method which effects and generates different and multiple ideas and opinions regarding a certain matter. Such a method may be applied for any subject. In this method, a question or subject is posed and the group is asked to specify their ideas with respect to the subject briefly and preferably in the form of a word or short sentence. The proposed ideas and opinions by the group are written on the blackboard so that all the group members may see all posed ideas.

This method provides an opportunity for each individual group member's ideas and opinions to be recognized, accepted and respected without criticism. Brainstorming offers important information to the instructor of EQ training as well: how the students view a certain matter, what they know about it, and how they specify the same (Zins et al., 2004).

Group Discussion

Group discussion is an effective method to make the group members active, and is applied for both big and small groups. Usually the facilitator, instructor or group leader presents the subject of the discussion and directs it. The group discussion requires all members to voice their ideas and opinions regarding the subject. Sometimes during the discussion the facilitator writes the required points on the board and the group finally makes conclusions from it, or uses it as the introduction for the member's individual speeches. In this method, the workshop director encourages the members to interact with one another and to participate in the discussion without any particular member(s) dominating the discussion (Antonowicz & Ross, 1994).

Questioning

When teaching social skills, the questioning method is applied abundantly. After fulfillment of any activity, some questions are asked such that the participants can make conclusions from the activity performed, and extend such conclusions to the situations outside the workshop. Questioning allows participants to take responsibility for their learning and pay more attention to the contents presented. Questioning can be used throughout all the different steps of the training program. During the beginning stage of the discussion, questioning is performed in order to attract the participants' attention and interest. In the middle of the discussion, the questions are asked in order to keep the group active and maintain the group members' spirit of cooperation.

Role Playing

Role playing is the most important technique. This technique is most useful in small groups; although it is used in the form of a play performance in bigger groups. Using this technique allows participants to observe a behavior, learn it and practice it in

a safe place, which is far from the potential of receiving negative feedback in the real world. This allows the members to experience the new behavior without any worries and fear; this builds the group members' confidencein their abilty to apply the new skill in real life. Role playing is basically applied regarding the interpersonal relationships within the group and provides an opportunity for:

- developing the current personal training
- practicing and fortifying the new training without the fear of defeat or criticism
- finding solutions for the turbulent situations in a safe environment
- indicating several answers to certain situations
- experiencing different roles in a safe environment
- experiencing some feelings which may be accompanied with certain decisions
- understanding and considering the rights, values, and feelings of others
- getting experience in competition and using the reward and fortification

The main purpose of the social skill-learning techniques is to allow the group to work on common goals, as well as serve to make for positive competition among the group members in order to increase the motivation of learning (Bandura, 2001).

Training Book

Two professors of education, Jafar Bolharyand Atefeh Khoshnavaz, assisted in designing the book on the five main skills, referred to as the model of life skills (WHO, 2006) and after that two professors of Tehran University, Motaby and Fathey (2006a, 2006b, 2006c) classified five main skills books in the following five groups: interpersonal relationships, coping with stress, problem solving, decision making and anger management training for university students.

For this study, books on interpersonal relationships, coping with stress, and anger management training, written by Feshteh Motaby and Lodan Fathey (2006a, 2006b, 2006c) and published by Danzhh and Amazon Persian book was used.

The trainer first helped the participants explore how relationships are important in their life. Then the students learned how to use self-disclosure to improve relationships with others. Next the participants learned to listen for feelings as well as thoughts in what other people are saying. They spent a considerable amount of time practicing the skills of listening for feeling and reflecting back to the other person the feelings that they heard. Then the participants shifted from listening to speaking. Specifically, they explored the feelings associated with having to deliver negative messages to other people. The participants next learned about interpersonal boundaries and how effective relationships depend on our being sensitive to boundaries and respecting peoples' boundaries. The trainer helped the participants to analyze incidents in their own lives when they inadvertently violated someone's boundaries, and conversely, when someone violated theirs. One goal of this activity is to help participants become more sensitive to the cues that warn us that we are about to violate someone's interpersonal boundaries. The participants learned how to identify, discuss, and if desired, renegotiate such contracts.

Stress Management Book

The participants thought about what optimal performance would look like, and they identified the obstacles which keep them from achieving it. This leads to a consideration of topics such as stress management, nutrition, and exercise. This segment also includes self-assessment exercises and the teaching of stress management techniques such as breathing and progressive muscle relaxation. Next the participants learn to use mental rehearsal to enhance their performance. The program concludes with

the participants writing personal action plans to apply what they have learned. Throughout the program, the trainers use a variety of teaching modalities to help the participants learn new ways of thinking and acting, including small group discussions, individual exercises involving drawing as well as writing, demonstrations, and participanting role playing activities (Motaby & Fathey, 2006b).

Anger Management Book

The participants thought about what was involved in gaining control over their anger and to recognize its warning signs. The participants learn to use mental exercises to enhance their performance. The homework assignments concluded with the participants writing personal action plans to apply what they have learned to their daily life. Throughout the program, the trainers used a variety of teaching modalities to help the participants learn new ways of thinking and acting, including small group discussions, individual exercises involving drawing as well as writing, demonstrations, and role playing exercises (Motaby & Fathey, 2006c).

Interpersonal Relationships Book

The focus in the book shifts from the self to relationships with others. The trainer first helps the participants explore how relationships are important in their life. Then they learn how to use self-disclosure to improve relationships with others. Next the participants learn to listen for feelings as well as thoughts in what other people are saying. They spend considerable time practicing the skill of listening for feeling and reflecting back to the other person the feelings they heard. Then the participants shift from listening to speaking. Specifically, they explore the feelings associated with having to deliver hard messages to other people. The participants next learn about interpersonal boundaries and how effective relationships depend on our being sensitive

to, and respecting peoples boundaries. The trainer helps the participants to analyze incidents in their own lives when they inadvertently violated someone's boundaries and, conversely, when someone violated theirs. One goal of this activity is to help participants become more sensitive to the cues that warn us that we are about to violate someone's interpersonal boundaries. The participants learn how to identify, discuss, and, if desired, renegotiate such contracts (Motaby & Fathey, 2006b).

The following tables outline the training programs for the respective groups.

Table 3.3
Training Program for the Stress Management Group

Training Source	Stress management Training book Farsi version
Author	Feshteh Motaby and Lodan Fathey
(year)	(2006c)
Model of training	Social learning
Session number	Five session
Time of essions	2 hours
Date and time	Every Saturday 10-12 pm
Place	counseling center in the University
Started	October
Finished	November
Goals	Understanding stress and its different effects on human beings Understanding stress and its different effects on human beings Activating a student's mind about differences of people in facing stress Finding out about ways of fighting stress Student's awareness of general effects of stress on human beings Visualizing the role of stress in our lives Knowing the relationship that exists between stress and anxiety Students should learn to be able to face stress
Activities	Activating a student's mind about differences of people in facing stress Seeing the Humour Deep Breathing Creating a Stress Log Alter the situation or your approach to it. Avoid the situation. Accept the situation. Using Relaxation Techniques Singing, writing, physical activity

Table 3.4
Training for Anger Management Group

Source for Training	Anger management management Training book Farsi version
Author	Feshteh Motaby and Lodan Fathey
(year)	(2006a)
Date and time	every Sunday at 10-12 pm October –November
Place	counseling center in the University
Goals	Understanding stress and its different effects on human beings
Started finished	10th October November
Activities	Activating student's mind about importance of anger management skill cause of anger and its different effects on human beings.and its different effects on human beings. Students' awareness of their anger levels Activating student's mind about importance of their thoughts in amount of anger Gaining experience and learning skill of anger management Using coping thoughts Visualization Using Relaxation Techniques

Table 3.5
Training Program for the Interpersonal Communication Group

Training Source	Interpersonal Communication Skills Training book
Author	Feshteh Motaby and Lodan Fathey
(year)	(2006b)
Session number	Five session
Session Time	2 hours
Date and time	every Monday 10-12 pm October –November
Place	counseling center at the University
Started	October
finished	November
Goals	Activating student's mind about importance of communicational skills Students gaining communicational skills through practice Effects of Inter-Personal Relations on Man Students was learn how to effect interpersonal communications on Man. Students was learn advantage of inter- Personal Relation
Activities	Appreciative Inquiry- Delivery Tips How Do We Communicate- This is what you are saying- Verbal, Non-Verbal and Para verbal- Understanding Active Listening

Data Analysis

The first part involved the description of data. In this section, mean EI subscales among 4 groups of students trained with the skills, anger management, stress management, communication skills and the control group is presented.

Part two - Data Analysis

The research findings are analyzed based on the basic questions of the research. Regarding the nature of the research questions, interdisciplinary ANCOVA and also Mann Whitney *U* test have been used to analyze them.

In order to perform data analysis, SPSS software (Version 16) was used. Descriptive and inferential statistics involving mean, median, and variance were used. The pretest has been used in the present plan, in order that the pretest can be considered posttest ANCOVA has been employed. At first the assumptions of Ancova were studied. The results of Levene's test and Homogeneity test indicated that Ancova assumptions were on.

There are two important additional considerations: (1) independence of the covariate and treatment effect, and (2) homogeneity of regression slopes.

With regard to significance of variance and covariance matrix which are included in assumptions of Ancova and in order to increase certitude, the non-parametric Mann-Whitney *U* test was employed because of absence of variances homogeneity assumption and for studying the significance of the difference between pretest and post-test score in both groups, the report of which is presented in chapter 4.

Chapter Summary

The methodology selected for the research was based on the research questions and attaining results to demonstrate a statistically significant improvement in EI and the five scales that comprise the Bar-On model of EQ as measured by the EQ-I. The scales of intrapersonal, interpersonal, adaptability, general mood, and stress management were analyzed for improvement. The focus of the research were the independent variables of anger management, stress training and interpersonal communication skills learning; which were analyzed across the five scales, as well as

the total emotional intelligence score using pre-test and post-test. The research completed and reported contributed to the body of knowledge of EQ in that a detailed description of the types of training activities, deployment methods utilized, time spent within the social learning methods, and duration of training were provided and the subsequent level of EQ improvement that occurred was reported.

CHAPTER 4

FINDINGS

Introduction

In this study, the data were analyzed using scientific methods. Descriptive information is presented in the next section in order to investigate the research hypotheses, and data are analyzed. And analysis of research questions regarding nature ANOVA between groups and between groups, used analysis of covariance.

The first part involved the description of data. In this section, mean EI subscales among 4 groups of students trained with the skills, anger management, stress management, communication skills and the control group is presented.

Part two - Data Analysis

The research findings are analyzed based on the basic questions of the research. Regarding the nature of the research questions, interdisciplinary ANCOVA and also Mann Whitney *U* test have been used to analyze them.

RQ1 : Do Anger Management skills affect students' EI (Emotional Intelligence)?

In order to answer this question, the mean and standard deviation of the two groups of Anger Management training course and Control were calculated in pretest and post- test phases and the difference between two groups was studied using the independent *t*-test shown in Table 4.1.

Table 4.1
Independent t-test of the Two Groups of Anger Management Training Course and Control

	group	N	Mean	Std. Deviation	Std. Error Mean	*t*	df	Sig. (2-tailed)
Emotional Quotient Inventory	anger	31	181.32	25.82	4.64	27.808	58	.000
	control	29	38.45	10.25	1.90			

As shown in Table 4.1, the difference of the total score EI in post-test phase is significant ($p < .05$). This means that teaching Anger Management in the experimental group can culminate in an increase of EI of the students. In addition, since the pretest has been used in the present plan, in order that the pretest can be considered in final test ANCOVA has been employed. At first the assumptions of ANCOVA were studied. The results of Levene's test and Homogeny test indicated that ANCOVA assumptions were on.

Table 4.2
Results of Analysis of Covariance with Skills Training, Anger Management, Skills of EI on Students

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	257750.542(b)	2	128875.271	336.849	.000	.922	673.699	1.000
Intercept	5928.768	1	5928.768	15.496	.000	.214	15.496	.972
Emotional Quotient Inventory	9091.829	1	9091.829	23.764	.000	.294	23.764	.998
GROUP	246545.310	1	246545.310	644.411	.000	.919	644.411	1.000
Error	21807.642	57	382.590					
Total	11805095.000	60						
Corrected Total	279558.183	59						

a Computed using alpha = .05
b *R* Squared = .922 (Adjusted *R* Squared = .919)

In spite of significance of pretest effect on final test, the difference between two groups of "Anger Management" and "Control" is also significant after the control of pretest effect ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 0.0919 and statistical power of the test is equal with 1. With regard to significance of variance and covariance matrix which are included in assumptions of ANCOVA and in order to increase certitude, the non-parametric Mann-Whitney *U* test was employed because of absence of variances homogeneity assumption and for studying the significance of the difference between pretest and post-test marks in both groups, the report of which has been presented in Table 4.3

Table 4.3
Mann-Whitney U *Test Comparing the Two Groups of Anger Management Training and Control Emotional Quotient Inventory*

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney *U*	.000
Emotional Quotient Inventory	Anger control	31	45.00	1395.00	Wilcoxon W	435.000
		29	15.00	435.00	Z	-6.652
	Total	60			Asymp. Sig. (2-tailed)	.000

As shown in Table 4.3, the difference in grades of EI between two groups of "Anger Management" and "Control" is significant at level of $p < .01$.In addition to studying the difference of the two groups regarding the total grade of EI using ANCOVA, the effect of teaching Anger Management on EI components in both groups were also studied.

Table 4.4
Interdisciplinary ANCOVA of the Effect of Anger Management skills on Students' Assertiveness (Dependent Variable: Assertiveness)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	104.621(b)	2	52.311	4.944	.010	.148	9.888	.788
Intercept	909.011	1	909.011	85.910	.000	.601	85.910	1.000
Assertiveness	31.646	1	31.646	2.991	.089	.050	2.991	.398
GROUP	61.466	1	61.466	5.809	.019	.092	5.809	.659
Error	603.112	57	10.581					
Total	32264.00	60						
Corrected Total	707.733	59						

a Computed using alpha = .05
b *R* Squared = .148 (Adjusted *R* Squared = .118)

As shown in Table 4.4, in Assertiveness element, in spite of the significance of the pretest effect in final test, the difference between two groups of "Anger Management" and "Control" is also significant after control of the effect of pretest ($p <$ .01). Eta-squared (effect quotient) is equal with 9.2 and the statistical power of the test is equal with .65.

Table 4.5
Interdisciplinary ANCOVA of the effect of Anger Management Skills on Students' Self-Regard (Dependent Variable: Self- Regard)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	1181.052(b)	2	590.526	48.703	.000	.631	97.405	1.000
Intercept	428.092	1	428.092	35.306	.000	.382	35.306	1.000
Self - Regard	48.210	1	48.210	3.976	.051	.065	3.976	.500
GROUP	1040.704	1	1040.704	85.830	.000	.601	85.830	1.000
Error	691.132	57	12.125					
Total	56655.000	60						
Corrected Total	1872.183	59						

a Computed using alpha = .05
b *R* Squared = .631 (Adjusted *R* Squared = .618)

As indicated in Table 4.5, in Self-Regard element, the difference between two groups of "Anger Management" and "Control" is significant after control of the effect of pretest ($p < .01$). Eta-squared (effect quotient) is equal with 60.1 and the statistical power of the test is equal with 1.

Table 4.6
Interdisciplinary ANCOVA of the Effect of Anger Management Skills On Students' Empathy (Dependent Variable: Empathy)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	1588.217(b)	2	794.108	86.985	.000	.753	173.970	1.000
Intercept	400.934	1	400.934	43.918	.000	.435	43.918	1.000
Empathy	34.379	1	34.379	3.766	.057	.062	3.766	.479
GROUP	1462.335	1	1462.335	160.182	.000	.738	160.182	1.000
Error	520.366	57	9.129					
Total	45579.000	60						
Corrected Total	2108.583	59						

a Computed using alpha = .05
b *R* Squared = .753 (Adjusted *R* Squared = .745)

Table 4.6 shows that under the Empathy element, the difference between two groups of "Anger Management" and "Control" is significant after control of the effect of pretest ($p < .01$). Eta-squared (effect quotient) is equal with 73.8 and the statistical power of the test is equal with 1.

Table 4.7
Interdisciplinary ANCOVA of Effect of Anger Management Skills on Students' Interpersonal Relationship (Dependent Variable: Interpersonal Relationship)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Para-meter	Observed Power(a)
Corrected Model	2256.391 (b)	2	1128.196	120.744	.000	.809	241.487	1.000
Intercept	506.833	1	506.833	54.243	.000	.488	54.243	1.000
Interpersonal Relationship	146.128	1	146.128	15.639	.000	.215	15.639	.973
GROUP	2165.289	1	2165.289	231.737	.000	.803	231.737	1.000
Error	532.592	57	9.344					
Total	83529.000	60						
Corrected Total	2788.983	59						

a Computed using alpha = .05
b *R* Squared = .809 (Adjusted *R* Squared = .802)

As seen in Table 4.7, the difference between two groups of "Anger Management" and "Control" in regard with Interpersonal Relationship after controlling the effect of pretest is significant ($p < .01$). Eta-squared (effect quotient) is equal with 0.0802 and the statistical power of the test is equal with 1.

Table 4.8
Interdisciplinary ANCOVA of Effect of Anger Management Skills on Students' Social Responsibility (Dependent Variable: Social Responsibility)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	936.301(b)	2	468.150	43.916	.000	.606	87.831	1.000
Intercept	715.469	1	715.469	67.116	.000	.541	67.116	1.000
Social Respreibility	6.476	1	6.476	.608	.439	.011	.608	.120
GROUP	917.001	1	917.001	86.021	.000	.601	86.021	1.000
Error	607.633	57	10.660					
Total	70768.000	60						
Corrected Total	1543.933	59						

a Computed using alpha = .05 ; b *R* Squared = .606 (Adjusted *R* Squared = .593)

As shown in Table 4.8, the difference between two groups of "Anger Management" and "Control" in regard with Social Responsibility after controlling the effect of pretest is significant ($p < .01$). Eta-squared (effect quotient) is equal with 60.1 and the statistical power of the test is equal with 1.

Table 4.9
Interdisciplinary ANCOVA of the effect of Anger Management skills on Students' Problem Solving (Dependent Variable: Problem Solving)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Para-meter	Observed Power(a)
Corrected Model	2364.469 (b)	2	1182.235	246.196	.000	.896	492.392	1.000
Intercept	386.458	1	386.458	80.478	.000	.585	80.478	1.000
Problem Solving	70.789	1	70.789	14.741	.000	.205	14.741	.965
GROUP	2147.138	1	2147.138	447.134	.000	.887	447.134	1.000
Error	273.714	57	4.802					
Total	43563.000	60						
Corrected Total	2638.183	59						

a Computed using alpha = .05
b *R* Squared = .896 (Adjusted *R* Squared = .893)

As seen in Table 4.9, the difference between two groups of "Anger Management" and "Control" in regard with Problem Solving after controlling the effect of pretest is significant ($p < .01$). Eta-squared (effect quotient) is equal with 88.7 and the statistical power of the test is equal with 1.

The following Table 4.10 displays the difference between two groups of "Anger Management" and "Control" with regard to Impulse Control after controlling the effect of pretest is significant ($p < .01$). Eta-squared (effect quotient) is equal with 0.0761 and the statistical power of the test is equal with 1.

Table 4.10
Interdisciplinary ANCOVA for Effect of Anger Management Skills on Students' Impulse Control

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	1608.684(b)	2	804.342	100.949	.000	.780	201.898	1.000
Intercept	847.862	1	847.862	106.411	.000	.651	106.411	1.000
Impulse Control	356.940	1	356.940	44.798	.000	.440	44.798	1.000
GROUP	1447.111	1	1447.111	181.619	.000	.761	181.619	1.000
Error	454.166	57	7.968					
Total	77891.000	60						
Corrected Total	2062.850	59						

a Computed using alpha = .05
b *R* Squared = .780 (Adjusted *R* Squared = .772)

Table 4.11
Interdisciplinary ANCOVA of the Effect of Anger Management Skills on Students' Happiness (Dependent Variable: Happiness)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Para-meter	Observed Power(a)
Corrected Model	1563.491(b)	2	781.745	68.401	.000	.706	136.802	1.000
Intercept	481.435	1	481.435	42.125	.000	.425	42.125	1.000
Happiness	84.428	1	84.428	7.387	.009	.115	7.387	.762
GROUP	1514.895	1	1514.895	132.550	.000	.699	132.550	1.000
Error	651.443	57	11.429					
Total	56696.000	60						
Corrected Total	2214.933	59						

a Computed using alpha = .05
b *R* Squared = .706 (Adjusted *R* Squared = .696)

As seen in Table 4.11, the difference between two groups of "Anger Management" and "Control" with regard to Happiness after controlling the effect of pretest is significant ($p < .01$). Eta-squared (effect quotient) is equal with 69.9 and the statistical power of the test is equal with 1.

Table 4.12
Interdisciplinary ANCOVA of the Effect of Anger Management Skills on Students' Optimism (Dependent Variable: Optimism)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	3240.078(b)	2	1620.039	177.272	.000	.861	354.545	1.000
Intercept	932.572	1	932.572	102.047	.000	.642	102.047	1.000
Optimism	4.436	1	4.436	.485	.489	.008	.485	.105
GROUP	2715.308	1	2715.308	297.122	.000	.839	297.122	1.000
Error	520.906	57	9.139					
Total	55329.000	60						
Corrected Total	3760.983	59						

a Computed using alpha = .05
b *R* Squared = .861 (Adjusted *R* Squared = .857)

As observed in Table 4.12, the difference between two groups of "Anger Management" and "Control" in regard with Optimism after controlling the effect of pretest is significant ($p <$ .01). Eta-squared (effect quotient) is equal with 83.9 and the statistical power of the test is equal with 1.

In case of absence of the conditions and assumptions of ANCOVA the non-parametric Mann-Whitney *U* test is used.

Table 4.13
Mann-Whitney U Test Comparing the two Groups of Anger Management Training and Control on Students' EI

	group	N	Mean Rank	Sum of Ranks		
Self Actualization	anger	31	43.26	1341.00	Mann-Whitney *U*	54.000
	control	29	16.86	489.00	Wilcoxon W	489.000
	Total	60			Z	-5.917
					Asymp. Sig. (2-tailed)	.000
independence	anger	31	29.56	916.50	Mann-Whitney *U*	420.500
	control	29	31.50	913.50	Wilcoxon W	916.500
	Total	60			Z	-.474
					Asymp. Sig. (2-tailed)	.635
Reality Testing	anger	31	35.15	1089.50	Mann-Whitney *U*	305.500
	control	29	25.53	740.50	Wilcoxon W	740.500
	Total	60			Z	-2.157
					Asymp. Sig. (2-tailed)	.031
Flexibility	anger	31	40.52	1256.00	Mann-Whitney *U*	139.000
	control	29	19.79	574.00	Wilcoxon W	574.000
	Total	60			Z	-4.737
					Asymp. Sig. (2-tailed)	.000
Stress Tolerance	anger	31	44.94	1393.00	Mann-Whitney *U*	2.000
	control	29	15.07	437.00	Wilcoxon W	437.000
	Total	60			*Z*	-6.671
					Asymp. Sig. (2-tailed)	.000

As evident in Table 4.13, the difference of grades of EI elements including Self Actualization, Stress Tolerance, Flexibility, Reality Testing and Independence between two groups of "Stress Management" and "Control" is significant at the $p < .01$ level.

2. Do Stress Management Skills Affect Students' EI (Emotional Intelligence)?

In order to answer this question, preliminarily the mean and standard deviation of the two groups of "Stress Management Learning" and "Control" were calculated in pretest and final test phases and the difference between two groups was studied using the independent *t*-test shown in Table 4.14.

Table 4.14
Independent t-Test of the Two Groups of Anger Management Training Course and Control on Students' EI

	group	N	Mean	Std. Deviation	Std. Error Mean	*T*	df	Sig. (2-tailed)
Emotional Quotient Inventory	stress	30	170.57	30.312	6.062	22.083	52	.000
	control	30	38.45	10.25	1.90			

As seen in Table 4.14, the difference between total average marks of EI in the post test phase is significant ($p < .01$). This indicates that teaching Stress Management in test group can culminate in an increase in students' EI.

In addition to the above analysis, since the pretest has been used in the present plan, in order that the pretest can be considered in final test, the ANCOVA has been employed. At first the assumptions of ANCOVA were studied. The results of Levene's test and Homogeneity test indicated that ANCOVA assumptions were fulfilled.

Table 4.15
Interdisciplinary ANCOVA of the Effect of Stress Management Skills on Students' EI

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	212871.230(b)	2	106435.615	238.038	.000	.903	476.076	1.000
Intercept	6869.799	1	6869.799	15.364	.000	.232	15.364	.970
Emotional Quotient Inventory	4540.431	1	4540.431	10.154	.002	.166	10.154	.878
GROUP	211099.102	1	211099.102	472.113	.000	.903	472.113	1.000
Error	22804.000	51	447.137					
Total	10192164.444	54						
Corrected Total	235675.230	53						

a Computed using alpha = .05
b *R* Squared = .922 (Adjusted *R* Squared = .919)

Table 4.15 shows that in spite of significance of the pretest effect on the final test, the difference between two groups of "Stress Management" and "Control" after

controlling the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 90.3 and the statistical power of the test is equal with 1.

With regard to the significance of variance and covariance matrix which are included in assumptions of ANCOVA and in order to increase certitude, the non-parametric Mann-Whitney *U* test was employed because of absence of variances homogeneity assumption and for studying the significance of the difference between pretest and post-test marks in both groups, the report of which has been presented in Table 4.16.

Table 4.16
Mann-Whitney U Test Comparing the Two Groups of Stress Management Training and Control on Students' EI

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	.000
Emotional Quotient Inventory	Stress	30	42.00	1050.00	Wilcoxon W	435.000
	control	30	15.00	435.00	Z	-6.291
	Total	60			Asymp. Sig. (2-tailed)	.000

As seen in Table 4.16, the difference between the grades of EI between two groups of "Stress Management" and "Control" is significant at ($p < .01$) level.

In addition to studying the difference of the two groups regarding the total grade of EI, using ANCOVA, the effect of teaching Stress Management on EI components in both groups were also studied.

Table 4.17
Interdisciplinary ANCOVA of Effect of Stress Management Skills on Students' Self Awareness

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	400.515(b)	2	200.258	52.968	.000	.675	105.935	1.000
Intercept	81.383	1	81.383	21.526	.000	.297	21.526	.995
Emotional Self Awareness	67.270	1	67.270	17.793	.000	.259	17.793	.985
GROUP	243.703	1	243.703	64.459	.000	.558	64.459	1.000
Error	192.818	51	3.781					
Total	30274.000	54						
Corrected Total	593.333	53						

a Computed using alpha = .05
b *R* Squared = .675 (Adjusted *R* Squared = .662)

As displayed in Table 4.17, in terms of Emotional Self Awareness, in spite of significance of the pretest effect on the final test, the difference between two groups of "Stress Management" and "Control" after controlling for the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal to 55.8 and the statistical power of the test is equal to 1.

Table 4.18
Interdisciplinary ANCOVA of Effect of Stress Management Skills on Students' Assertiveness

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Para-meter	Observed Power(a)
Corrected Model	226.580(b)	2	113.290	20.470	.000	.445	40.940	1.000
Intercept	25.198	1	25.198	4.553	.038	.082	4.553	.553
Assertiveness	172.505	1	172.505	31.170	.000	.379	31.170	1.000
GROUP	136.659	1	136.659	24.693	.000	.326	24.693	.998
Error	282.253	51	5.534					
Total	28389.000	54						
Corrected Total	508.833	53						

a Computed using alpha = .05
b *R* Squared = .445 (Adjusted *R* Squared = .424)

As seen in Table 4.18, in Assertiveness, in spite of significance of the pretest effect on the final test, the difference between two groups of "Stress Management" and "Control" after controlling the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 32.6 and the statistical power of the test is equal with 0.99.

Table 4.19
Interdisciplinary ANCOVA of Effect of Stress Management Skills on Students' Self – Regard

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Para-meter	Observed Power (a)
Corrected Model	570.128(b)	2	285.064	15.647	.000	.380	31.294	.999
Intercept	427.387	1	427.387	23.459	.000	.315	23.459	.997
Self Regard	-14.022	1	14.022	.770	.384	.015	.770	.138
GROUP	513.363	1	513.363	28.178	.000	.356	28.178	.999
Error	929.131	51	18.218					
Total	45990.000	54						
Corrected Total	1499.259	53						

a Computed using alpha = .05
b *R* Squared = .380 (Adjusted *R* Squared = .356)

As shown in Table 4.19, in Self-Regard, in spite of significance of the pretest effect on the final test, the difference between two groups of "Stress Management" and "Control" after controlling the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 35.6 and the statistical power of the test is equal with 0.99.

Table 4.20
Interdisciplinary ANCOVA of the Effect of Stress Management Skills on Students' Empathy (Dependent Variable: Empathy)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	1630.728(b)	2	815.364	67.545	.000	.726	135.090	1.000
Intercept	669.244	1	669.244	55.440	.000	.521	55.440	1.000
Empathy	10.669	1	10.669	.884	.352	.017	.884	.152
GROUP	1597.647	1	1597.647	132.350	.000	.722	132.350	1.000
Error	615.642	51	12.071					
Total	40860.000	54						
Corrected Total	2246.370	53						

a Computed using alpha = .05
b *R* Squared = .726 (Adjusted *R* Squared = .715)

As seen in Table 4.20, in Empathy, the difference between two groups of "Stress Management" and "Control" after controlling the pretest effect is also significant ($p <$ .01). Moreover, Eta-squared (effect quotient) is equal with 72.2 and the statistical power of the test is equal with 1.

Table 4.21
Interdisciplinary ANCOVA of Effect of Stress Management Skills on Students' Interpersonal Relationship

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (a)
Corrected Model	1993.423(b)	2	996.711	81.022	.000	.761	162.043	1.000
Intercept	250.255	1	250.255	20.343	.000	.285	20.343	.993
Interpersonal Relationship	233.780	1	233.780	19.004	.000	.271	19.004	.990
GROUP	1954.784	1	1954.784	158.902	.000	.757	158.902	1.000
Error	627.392	51	12.302					
Total	72030.000	54						
Corrected Total	2620.815	53						

a Computed using alpha = .05 ;
b *R* Squared = .761 (Adjusted *R* Squared = .751)

As seen in Table 4.21, in Interpersonal Relationship, the difference between two groups of "Stress Management" and "Control" after controlling the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 75.5 and the statistical power of the test is equal with 1.

Table 4.22
Interdisciplinary ANCOVA of the Effect of Stress Management Skills on Students' Social Responsibility (Dependent Variable: Social Responsibility)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	886.110(b)	2	443.055	41.653	.000	.620	83.305	1.000
Intercept	452.606	1	452.606	42.551	.000	.455	42.551	1.000
Social Respreibility	13.167	1	13.167	1.238	.271	.024	1.238	.194
GROUP	875.513	1	875.513	82.309	.000	.617	82.309	1.000
Error	542.483	51	10.637					
Total	62500.000	54						
Corrected Total	1428.593	53						

a Computed using alpha = .05
b *R* Squared = .620 (Adjusted *R* Squared = .605)

As shown in Table 4.22, in Social Responsibility, the difference between two groups of "Stress Management" and "Control" after controlling the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 61.7 and the statistical power of the test is equal with 1.

Table 4.23
Interdisciplinary ANCOVA of the Effect of Stress Management Skills on Students' Optimism

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	2932.331(b)	2	1466.165	160.116	.000	.863	320.231	1.000
Intercept	599.776	1	599.776	65.500	.000	.562	65.500	1.000
A15	9.031	1	9.031	.986	.325	.019	.986	.164
GROUP	2560.820	1	2560.820	279.660	.000	.846	279.660	1.000
Error	467.002	51	9.157					
Total	47432.000	54						
Corrected Total	3399.333	53						

a Computed using alpha = .05 ;
b *R* Squared = .863 (Adjusted R Squared = .857)

As illustrated in Table 4.23, in Optimism, the difference between two groups of "Stress Management" and "Control" after controlling the pretest effect is also significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 84.6 and the statistical power of the test is equal with 1.

If the conditions and assumptions of ANCOVA are not on, then non-parametric Mann Whitney *U* Test is used.

Table 4.24

Mann-Whitney U Test Comparing the Stress Management Training Group and Control on Self Actualization, Reality Testing, Flexibility, Stress Tolerance, Impulse Control, Happiness

	group	N	Mean Rank	Sum of Ranks	Mann-Whitney *U*	2.500
Self Actualization	anger	25	41.90	1047.50	Wilcoxon W	437.500
	control	29	15.09	437.50	*Z*	-6.312
	Total	54			Asymp. Sig. (2-tailed)	.000
Reality Testing	anger	25	27.68	692.00	Mann-Whitney *U*	358.000
	control	29	27.34	793.00	Wilcoxon W	793.000
	Total	54			*Z*	-.079
					Asymp. Sig. (2-tailed)	.937
Flexibility	anger	25	30.54	763.50	Mann-Whitney *U*	286.500
	control	29	24.88	721.50	Wilcoxon W	721.500
	Total	54			*Z*	-1.403
					Asymp. Sig. (2-tailed)	.161
Stress Tolerance	anger	25	41.86	1046.50	Mann-Whitney *U*	3.500
	control	29	15.12	438.50	Wilcoxon W	438.500
	Total	54			*Z*	-6.280
					Asymp. Sig. (2-tailed)	.000
Impulse Control	anger	25	39.68	992.00	Mann-Whitney *U*	58.000
	control	29	17.00	493.00	Wilcoxon W	493.000
	Total	54			*Z*	-5.748
					Asymp. Sig. (2-tailed)	.000
Happiness	anger	25	41.14	1028.50	Mann-Whitney *U*	21.500
	control	29	15.74	456.50	Wilcoxon W	456.500
	Total	54			*Z*	-5.930
					Asymp. Sig. (2-tailed)	.000

As seen in Table 4.24, the difference of grades of EI elements including Self Actualization, Stress Tolerance, Impulse Control and Happiness between two groups of "Stress Management" and "Control" is significant at ($p < .01$) level. Though this difference is not significant in Reality Testing and Flexibility at ($p > .01$) level.

3. Do Communicative Skills affect students' EI?

In order to answer this question, preliminarily the mean and standard deviation of the two groups of Communicative Management Training and Control were calculated in the pretest and final test phases and the difference between two groups was studied using the independent *t*-test shown in Table 4.25.

Table 4.25
Independent t-Test of the Effect of Communicative Management Training on Students' EI in Experimental and Control Group

	group	N	Mean	Std. Deviation	Std. Error Mean	*T*	df	Sig.(2-tailed)
Emotional Quotient Inventory	communication	29	164.91	32.091	5.95	20.216	56	.000
	control	29	38.45	10.25	1.90			

As seen in Table 4.25, the difference between total average marks of EI in the post-test phase is significant ($p < .05$). This indicates that teaching Communicative Management in the test group can culminate in an increase in students' EI. In addition, since the pretest has been used in the present plan, in order that the pretest can be considered in final test, ANCOVA has been employed. At first the assumptions of ANCOVA were studied. The results of Levene's test and Homogeny test indicated that ANCOVA assumptions were on.

Table 4.26
Interdisciplinary ANCOVA for Effect of Communicative Management Skills on Students' EI

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	192877.693(b)	2	96438.846	209.815	.000	.884	419.631	1.000
Intercept	14306.178	1	14306.178	31.125	.000	.361	31.125	1.000
Emotional Quotient Inventory	2148.796	1	2148.796	4.675	.035	.078	4.675	.565
GROUP	182442.149	1	182442.149	396.927	.000	.878	396.927	1.000
Error	25280.031	55	459.637					
Total	10895968.000	58						
Corrected Total	218157.724	57						

a Computed using alpha = .05
b *R* Squared = .922 (Adjusted *R* Squared = .919)

As shown in Table 4.26, the difference between two groups of Communicative Management and Control after controlling the effect of pretest is significant ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 87.8 and the statistical power of the test is equal with 1. In regard with significance of variance and covariance matrix which are included in assumptions of ANCOVA and in order to increase certitude, the non-parametric Mann-Whitney *U* test was employed because of absence of variances homogeneity assumption and for studying the significance of the difference between pretest and post-test marks in both groups, the report of which is presented in Table 4.27.

Table 4.27
Mann-Whitney U Test Comparing Student EI for the "Communicative Management" and "Control" Groups

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney *U*	.000
Emotional Quotient Inventory	communication	29	44.00	1276.00	Wilcoxon W	435.000
	control	29	15.00	435.00	*Z*	-6.541
	Total	58			Asymp. Sig. (2-tailed)	.000

As seen in Table 4.27, the difference of grades of EI between two groups of Stress Management and Control is significant at the $p < .01$ level.

In addition to studying the difference of two groups in regard with total mark of EI using ANCOVA, the effect of teaching Communicative Skills on different dimensions and elements of EI were also studied in both groups.

Table 4.28
Interdisciplinary ANCOVA of Effect of "Communicative Management" Skills on Students' Emotional Self Awareness. Dependent Variable: Emotional Self Awareness

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	458.186(b)	3	152.729	24.607	.000	.573	73.820	1.000
Intercept	245.767	1	245.767	39.597	.000	.419	39.597	1.000
Emotional Self Awareness	54.903	1	54.903	8.846	.004	.139	8.846	.832
GROUP	411.870	2	205.935	33.179	.000	.547	66.358	1.000
Error	341.373	55	6.207					
Total	34210.000	59						
Corrected Total	799.559	58						

a Computed using alpha = .05
b *R* Squared = .573 (Adjusted *R* Squared = .550)

As illustrated in Table 4.28, the difference in level of Emotional Self Awareness between two groups of Communicative Skills and Control is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 54.7 and the statistical power of the test is equal with 1.

Table 4.29
Interdisciplinary ANCOVA for Effect of Communicative Management Training on Students' Assertiveness

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	135.296(b)	3	45.099	4.823	.005	.208	14.468	.883
Intercept	124.601	1	124.601	13.324	.001	.195	13.324	.948
Assertiveness	125.599	1	125.599	13.431	.001	.196	13.431	.950
GROUP	10.237	2	5.119	.547	.582	.020	1.095	.136
Error	514.332	55	9.351					
Total	29603.000	59						
Corrected Total	649.627	58						

a Computed using alpha = .05;
b *R* Squared = .208 (Adjusted *R* Squared = .165)

Table 4.29 shows that the difference at level of Assertiveness between two groups of Communicative Skills and Control is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 58.2 and the statistical power of the test is equal with 0.13.

Table 4.30
Interdisciplinary ANCOVA of the Effect of Communicative Management Training on Students' Self- Regard

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	523.461(b)	3	174.487	11.650	.000	.389	34.951	.999
Intercept	822.542	1	822.542	54.921	.000	.500	54.921	1.000
Self Regard	−2.275	1	2.275	.152	.698	.003	.152	.067
GROUP	391.626	2	195.813	13.074	.000	.322	26.149	.996
Error	823.725	55	14.977					
Total	50100.000	59						
Corrected Total	1347.186	58						

a Computed using alpha = .05;
b *R* Squared = .389 (Adjusted *R* Squared = .355)

As indicated in Table 4.30, the difference in level of Self-Regard between two groups of "Communicative Skills" and "Control" is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 32.2 and the statistical power of the test is equal with 0.9.

Table 4.31
Interdisciplinary ANCOVA of Effect of Communicative Management Training on Students' Empathy

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (a)
Corrected Model	1824.800(b)	3	608.267	63.984	.000	.777	191.951	1.000
Intercept	570.338	1	570.338	59.994	.000	.522	59.994	1.000
Empathy	24.242	1	24.242	2.550	.116	.044	2.550	.348
GROUP	1754.355	2	877.178	92.271	.000	.770	184.541	1.000
Error	522.861	55	9.507					
Total	46227.000	59						
Corrected Total	2347.661	58						

a Computed using alpha = .05;
b R Squared = .777 (Adjusted R Squared = .765)

As seen in Table 4.31, the difference in level of Empathy between two groups of "Communicative Skills" and "Control" is significant after controlling for the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 77 and the statistical power of the test is equal with 1.

Table 4.32
Interdisciplinary ANCOVA for Effect of Communicative Management Training on Students' Interpersonal Relationship

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power (a)
Corrected Model	1973.461(b)	3	657.820	54.239	.000	.747	162.718	1.000
Intercept	922.110	1	922.110	76.031	.000	.580	76.031	1.000
Interpersonal Relationship	80.883	1	80.883	6.669	.013	.108	6.669	.718
GROUP	1838.343	2	919.172	75.788	.000	.734	151.577	1.000
Error	667.048	55	12.128					
Total	80406.000	59						
Corrected Total	2640.508	58						

a Computed using alpha = .05;
b *R* Squared = .747 (Adjusted *R* Squared = .734)

With reference to Table 4.32, the difference in level of Interpersonal Relationship between two groups of "Communicative Skills" and "Control" is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 73.4 and the statistical power of the test is equal to 1.

Table 4.33
Interdisciplinary ANCOVA for Effect of Communicative Management Training on Students' Social Responsibility

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	971.498(b)	3	323.833	27.339	.000	.599	82.016	1.000
Intercept	914.655	1	914.655	77.217	.000	.584	77.217	1.000
Social Respreibility	2.170	1	2.170	.183	.670	.003	.183	.071
GROUP	897.517	2	448.758	37.885	.000	.579	75.771	1.000
Error	651.485	55	11.845					
Total	69895.000	59						
Corrected Total	1622.983	58						

a Computed using alpha = .05
b *R* Squared = .599 (Adjusted *R* Squared = .577)

As seen in Table 4.33, the difference in level of Social Responsibility between two groups of "Communicative Skills" and "Control" is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 57.9 and the statistical power of the test is equal with 1.

Table 4.34
Interdisciplinary ANCOVA of the Effect of Communicative Management Training on Students' Problem Solving

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	2053.479(b)	3	684.493	113.379	.000	.861	340.137	1.000
Intercept	651.282	1	651.282	107.878	.000	.662	107.878	1.000
Problem Solving	21.885	1	21.885	3.625	.062	.062	3.625	.464
GROUP	1828.437	2	914.218	151.431	.000	.846	302.861	1.000
Error	332.047	55	6.037					
Total	41185.000	59						
Corrected Total	2385.525	58						

a Computed using alpha = .05
b *R* Squared = .861 (Adjusted *R* Squared = .853)

With reference to Table 4.34, the difference in level of Problem Solving between two groups of "Communicative Management Skills" and "Control" is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 57.9 and the statistical power of the test is equal with 1.

Table 4.35
Interdisciplinary ANCOVA of the Effect of Communicative Management Training on Optimism

Source	Type III Sum of Squares	Df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(A)
Corrected Model	2831.773(b)	3	943.924	114.500	.000	.862	343.500	1.000
Intercept	677.900	1	677.900	82.231	.000	.599	82.231	1.000
Optimism	13.207	1	13.207	1.602	.211	.028	1.602	.238
GROUP	2739.012	2	1369.506	166.124	.000	.858	332.248	1.000
Error	453.413	55	8.244					
Total	52038.000	59						
Corrected Total	3285.186	58						

a Computed using alpha = .05
b *R* Squared = .862 (Adjusted *R* Squared = .854)

As seen in Table 4.35, the difference at level of Optimism between two groups of "Communicative Skills" and "Control" is significant after control of the effect of pretest ($p < .01$). Moreover, Eta-squared (effect quotient) is equal with 85.8 and the statistical power of the test is equal with 1.

If the conditions and assumptions of ANCOVA are not on, then non-parametric Mann Whitney *U* Test is used.

Table 4.36
Mann-Whitney U Test Comparing of the Two Groups Communicative Management and "Control" on Students' EI

	Group	N	Mean Rank	Sum of Ranks	Test	Value
Self Actualization					Mann-Whitney *U*	50.500
	communication	29	42.26	1225.50	Wilcoxon *W*	485.500
	Control	29	16.74	485.50	*Z*	-5.816
	Total	58			Asymp. Sig. (2-tailed)	.000
independence	communication	29	32.50	942.50	Mann-Whitney *U*	333.500
	Control	29	26.50	768.50	Wilcoxon *W*	768.500
	Total	58			*Z*	-1.484
					Asymp. Sig. (2-tailed)	.138
Reality Testing	communication	29	33.03	958.00	Mann-Whitney *U*	318.000
	Control	29	25.97	753.00	Wilcoxon *W*	753.000
	Total	58			*Z*	-1.617
					Asymp. Sig. (2-tailed)	.106
Flexibility	communication	29	41.71	1209.50	Mann-Whitney *U*	66.500
	Control	29	17.29	501.50	Wilcoxon *W*	501.500
	Total	58			*Z*	-5.718
					Asymp. Sig. (2-tailed)	.000
Stress Tolerance	communication	29	43.97	1275.00	Mann-Whitney *U*	1.000
	Control	29	15.03	436.00	Wilcoxon *W*	436.000
	Total	58			*Z*	-6.569
					Asymp. Sig. (2-tailed)	.000
Impulse Control	communication	29	40.50	1174.50	Mann-Whitney *U*	101.500
	Control	29	18.50	536.50	Wilcoxon *W*	536.500
	Total	58			*Z*	-5.443
					Asymp. Sig. (2-tailed)	.000
Happiness	communication	29	41.93	1216.00	Mann-Whitney *U*	60.000
	Control	29	17.07	495.00	Wilcoxon *W*	495.000
	Total	58			*Z*	-5.622
					Asymp. Sig. (2-tailed)	.000

From Table 4.36, the difference of grades of EI elements including Self Actualization, Stress Tolerance, Flexibility, Impulse Control and Happiness between the groups "Communicative Skills" and "Control" is significant at the $p < .01$ level, though this difference is insignificant in Reality Testing and Independence at the $p < .01$ level.

4. Do the EI of students in the experimental and control groups differ?

Table 4.37 gives the ANCOVA results for the experiumental and control groups.

Table 4.37
Interdisciplinary One way ANCOVA of Subscales of EI in Groups

Subscales	Source of change	Sum of Squares	Df	Mean Square	*F*	Sig.
Emotional Quotient Inventory	Between Groups	393093.8	3	131031.262	195.230	.000
	Within Groups	73827.9	110	671.163		
	Total	466921.7	113			
Emotional Self Awareness	Between Groups	559.2	3	186.398	18.435	.000
	Within Groups	1112.2	110	10.111		
	Total	1671.4	113			
Assertiveness	Between Groups	193.4	3	64.453	3.434	.019
	Within Groups	2064.3	110	18.767		
	Total	2257.7	113			
Self – Regard	Between Groups	1053.2	3	351.071	15.850	.000
	Within Groups	2436.5	110	22.150		
	Total	3489.7	113			
Self Actualization	Between Groups	1302.3	3	434.106	27.350	.000
	Within Groups	1746.0	110	15.872		
	Total	3048.3	113			
independence	Between Groups	111.2	3	37.063	1.963	.124
	Within Groups	2076.7	110	18.879		
	Total	2187.9	113			
Empathy	Between Groups	3194.4	3	1064.793	82.825	.000
	Within Groups	1414.1	110	12.856		
	Total	4608.5	113			
Interpersonal Relationship	Between Groups	4483.3	3	1494.420	101.642	.000
	Within Groups	1617.3	110	14.703		
	Total	6100.6	113			
Social Responsi-bility	Between Groups	1701.2	3	567.061	32.713	.000
	Within Groups	1906.8	110	17.334		
	Total	3607.9	113			
Problem Solving	Between Groups	4443.3	3	1481.112	135.651	.000
	Within Groups	1201.0	110	10.919		
	Total	5644.4	113			
Reality Testing	Between Groups	210.7	3	70.224	2.383	.073
	Within Groups	3242.1	110	29.474		
	Total	3452.8	113			
Flexibility	Between Groups	589.3	3	196.428	13.076	.000

Table 4.37 (Continued)
Interdisciplinary One way ANCOVA of Subscales of EI in Groups

Subscales	Source of change	Sum of Squares	Df	Mean Square	*F*	Sig.
	Within Groups	1652.5	110	15.022		
	Total	2241.8	113			
Stress Tolerance	Between Groups	2778.0	3	926.012	109.524	.000
	Within Groups	930.0	110	8.455		
	Total	3708.1	113			
Impulse Control	Between Groups	1813.2	3	604.409	33.878	.000
	Within Groups	1962.5	110	17.841		
	Total	3775.7	113			
Happiness	Between Groups	1952.4	3	650.788	32.421	.000
	Within Groups	2208.1	110	20.073		
	Total	4160.4	113			
Optimism	Between Groups	5763.0	3	1920.995	149.116	.000
	Within Groups	1417.1	110	12.883		
	Total	7180.1	113			

The results displayed in Table 4.37 show that in all subscales of Emotional Intelligence, except for Independence subscale and also Reality Testing subscale, the difference between groups is significant ($p < .005$).

4. Which teaching method has a stronger effect on students' EI?

Table 4.38 details the total marks of the students' EI in post test phase, based on different teaching groups of Anger Management, Stress Management, and Communicative Skills and Control group.

Table 4.38
Total Marks of the Students' EI in Post Test

Groups	Mean	Std. Deviation	N
Communication	486.40	23.25	30
Anger	500.55	24.89	30
Stress	496.29	25.02	30

Referring to Table 4.38, the results of analysis of covariance show the effect of provided training groups including Anger Management, Stress Management, and Communicative Skills and Control Group in increasing students' EI.

Table 4.39
Analysis of Covariance in Increasing Studied Students' EI: Emotional Quotient Inventory- Post Test

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Noncent. Para-meter	Observed Power(a)
Corrected Model	3117.896(b)	3	1039.299	1.728	.168	.060	5.185	.436
Intercept	51374.891	1	51374.891	85.428	.000	.513	85.428	1.000
Emotional Quotient Inven-tory-post test	7.419	1	7.419	.012	.912	.000	.012	.051
GROUP	3099.778	2	1549.889	2.577	.082	.060	5.154	.501
Error	48711.931	81	601.382					
Total	20834715.444	85						
Corrected Total	51829.827	84						

a Computed using alpha = .05
b *R* Squared = .060 (Adjusted *R* Squared = .025)

Based on the test results, analysis of covariance and the information obtained from Table 4.39, the effect of provided training in increasing studied students' EI (p = .001 and f = 1.109) is statistically significant ($p < .05$) and based on evidence and information contained in Table 4.39 it is possible to conclude that the method of teaching with Anger Management Skills has had a larger effect on students' EI.

Table 4.40
Analysis of Covariance Students' EI Emotional Quotient Inventory- Pre Test

Group		N	Mini-mum	Maxi-mum	Mean	Std. Deviation
Communication	Emotional Quotient Inventory- pre test	30	270.00	349.00	321.4828	16.83241
Anger	Emotional Quotient Inventory- pre test	30	282.00	356.00	319.2258	16.84183
Stress	Emotional Quotient Inventory- pre test	30	300.00	357.00	325.7200	14.28729
Control	Emotional Quotient Inventory- pre test	30	303.00	369.00	333.2759	17.04175

Mean Pre Test Scores for the four groups.

Figure 4.1 shows the mean pre test scores for the four groups in the study.

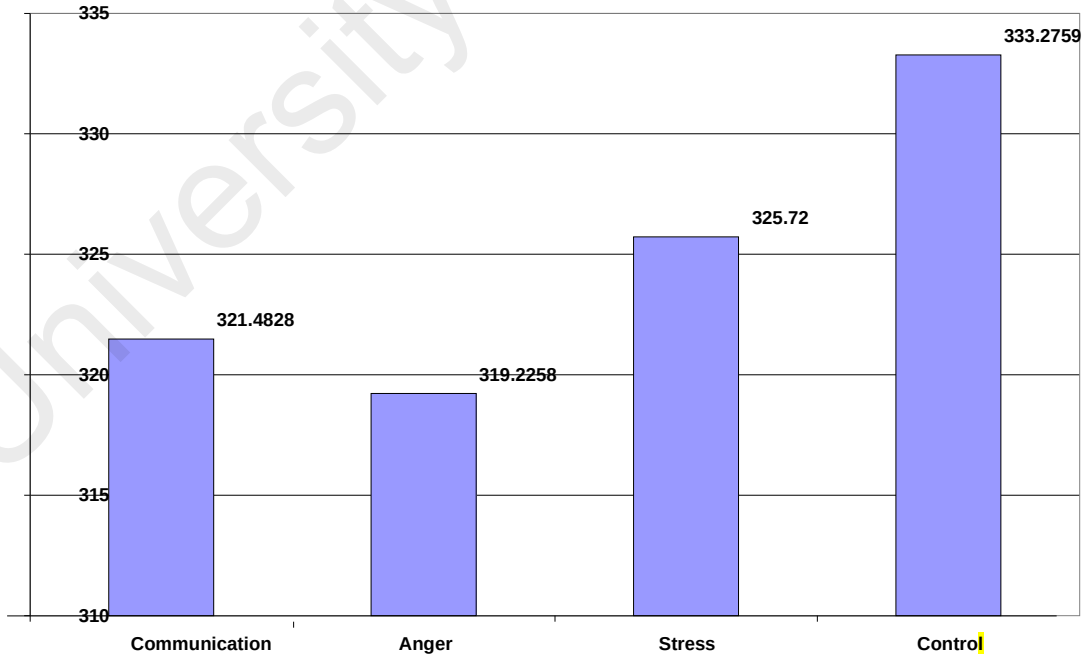

Figure 4.1. Mean Pre Test Scores for the four groups.

Table 4.41
Analysis of Covariance in Increasing Studied Students' EI Emotional Quotient Inventory Post Test

Group		N	Minimum	Maximum	Mean	Std. Deviation
Communi-cation	Emotional Quotient Inventory-post test	30	454.00	546.00	486.4138	23.23101
Anger	Emotional Quotient Inventory-post test	30	467.00	554.00	500.5484	24.88753
Stress	Emotional Quotient Inventory-post test	30	440.00	532.00	496.2916	25.02219
Control	Emotional Quotient Inventory-post test	30	317.00	416.00	371.7241	20.97430

Figure 4.2. Mean Post Test scores for the four groups.

Table 4.42
Pretest-posttest Emotional Quotient Inventory

Group	var	N	Pre test Mean	Std. Deviation	Post test Mean	Std. Deviation
Communi-cation	Emotional Quotient Inventory-	30	321.4828	16.83241	486.4138	23.23101
Anger	Emotional Quotient Inventory-	30	319.2258	16.84183	500.5484	24.88753
Stress	Emotional Quotient Inventory-	30	325.7200	14.28729	496.2916	25.02219
Control	Emotional Quotient Inventory-	30	333.2759	17.04175	371.7241	20.97430

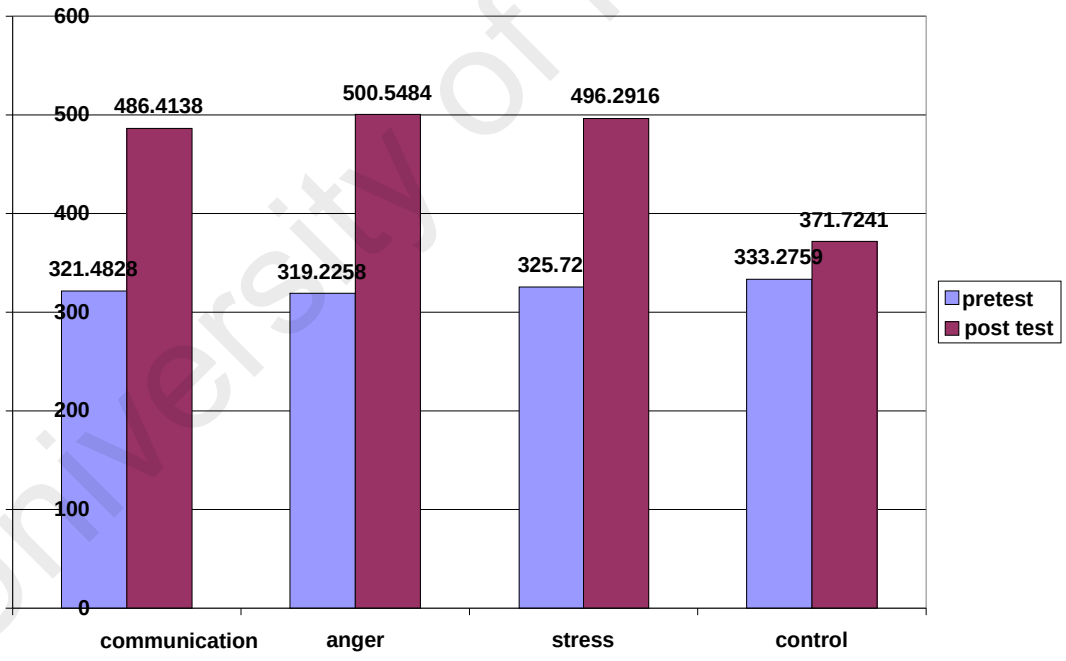

Figure 4.3. Comparison of pretest and posttest scores for the four groups.

Table 4.43
Change Difference Descriptive Statistics Emotional Quotient Inventory Pretest-posttest

Group		N	Minimum	Maximum	Mean	Std. Deviation
Communica-tion	Emotional Quotient Inventory	29	117.00	241.00	164.9134	32.09129
Anger	Emotional Quotient Inventory	31	147.00	232.00	181.3226	25.82039
Stress	Emotional Quotient Inventory	25	122.00	223.00	170.5717	30.31237
Control	Emotional Quotient Inventory	29	6.00	55.00	38.4483	10.24551

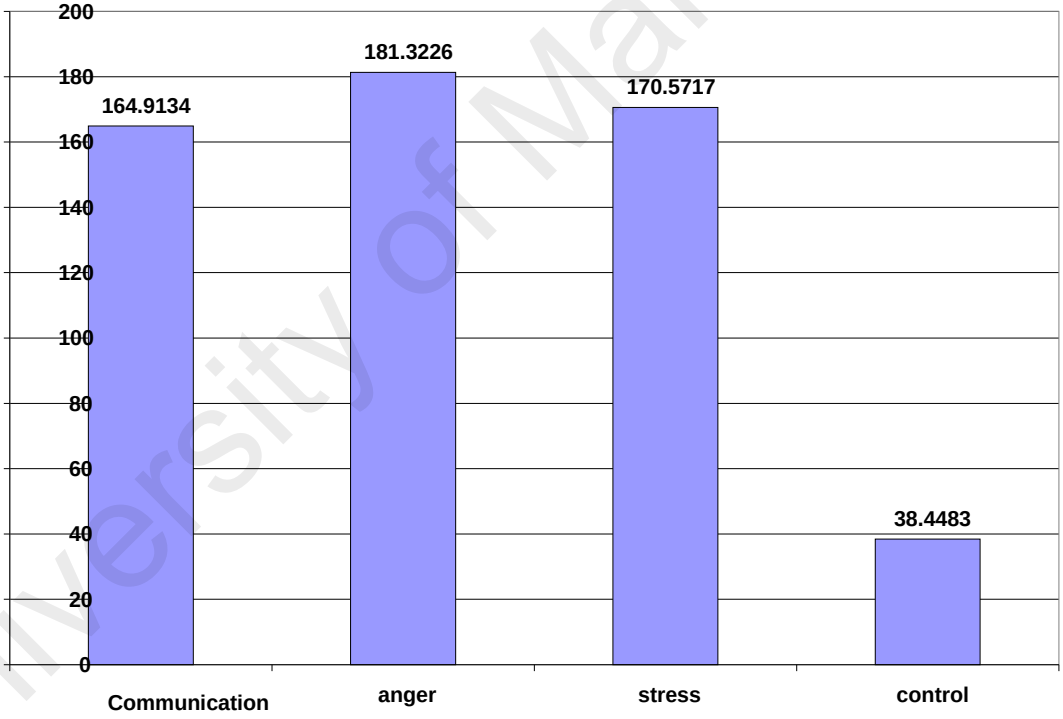

Figure 4.4. Differences in mean scores between pretest and posttest for the roups.

Conclusion

In conclusion, the results of descriptive statistics show that there were significant differences between anger management groups and control group on emotional intelligence. The results of comparison between the anger group and control group

show that the anger management groups had higher emotional intelligence scores than the control group. Results of ANCOVA show that there was a significant difference between the stress management group and control group on emotional intelligence, Furthermore, results of ANCOVA show there was significant interaction between stress training group on emotional intelligence. Finally, there was significant interaction between the interpersonal communication group and control group on emotional intelligence. Therefore, one contribution of this study is that it indicates the significant differences between experimental and control group on emotional intelligence variables, as well as showing that first year students have increased their scores on emotional intelligence after they participated in the anger, stress and interpersonal communication training program. The findings of this study would help academic authorities to foster emotional intelligence skills among the student community.

CHAPTER 5

CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

Introduction

This present chapter is organized into the following sections: the first section consists of a brief summary of the research. The second section includes discussion of research findings. The third section provides the conclusions of the research findings. The fourth section include implications concerning the result of this research and concludes with the suggestions for future studies.

Summary of Study

The problem to be addressed in this study stemmed from reports that a high rate of stress and aggressive behavior is a major problem in the university students of Iran due to their ineffective communication. The college environment is probably a new experience for most students. College students are prone to stress due to the transitional nature of college life. Unless they deal with the stress effectively, feelings of loneliness, nervousness, sleeplessness and worrying may result. Effective coping strategies facilitate the return to a balanced state, reducing the negative effects of stress; aggression behaviors among youth have also been found to be related to a deficit in emotional intelligence

This research examined Total EQ-i Scale scores and five Composite Scale scores as measured by the Bar-On EQ-i (Bar-On, 1997) for female university students in Iran participating in anger management training, stress management and skills of interpersonal communication training. Specifically, the Bar-On EQ-i was utilized as a pre and post test to measure changes in EI scores.

For this study social learning theory was used. After giving a starting pre-test to students (in the beginning of the academic year), group one was to undergo five sessions of anger management, and group two attended five sessions of stress management, while group three underwent five sessions of interpersonal communication training. Those in group four (the control group) did not participate in any program. However, the control group participated in the pretest and posttest at the same time with the experimental group. All students chosen for training at the identified faculty were offered the opportunity to participate in the training program. The existing data for the 120 participants in the experimental group counseling center included all participants entering the three different groups (anger, stress, and effective relationships training). Finally, the results of the pretest and posttest were compared.

In this study, in order to perform data analysis, SPSS software (Version 16) was used. Descriptive and inferential statistics involving mean, median, and variance, ANCOVA between groups, *t*-test and Mann-Whitney *U* Test were used.

The methodology selected for the research was based on the research questions and attaining results to demonstrate a statistically significant improvement in emotional intelligence and the five scales that comprise the Bar-On model of emotional intelligence as measured by the EQ Scale scores and five Composite Scale scores as measured by the Bar-On EQ-i (Bar-On, 1997). The scales of intrapersonal, interpersonal, adaptability, general mood, and stress management were analyzed for improvement. The focus of the research were the independent variables of anger management, stress training and interpersonal communication skills learning which were analyzed across the five scales, as well as the total emotional intelligence score using pre-test and post-test. The research contributed to the body of knowledge for emotional intelligence in that a detailed description of the types of training activities, deployment methods utilized, time spent within the social learning methods, and

duration of training were provided and the subsequent level of emotional intelligence improvement was noted

Significance of the Study

First year students are exposed to a variety of stressors. Establishing a student support system during the first year and improving it throughout the university is necessary to emotional intelligence to equip students with effective coping skills. Efforts should include anger management, stress management and effective relationship strategies that can be called upon in these students' future life.

Results of this research showed that significant improvement in emotional intelligence for first year students at the University were seen in the three categories after training in coping with stress, skills of effective relationships, and anger management.

The origin of problematic behaviors is multifarious, and psychological inquiry regarding the factors leading to externalized behavior problems such as rule-breaking, conduct problems, and aggression, has revealed a number of variables that may play a role. Parenting practices, socioeconomic status, intellectual ability, and high rates of viewing of media violence have all been found to be related to some form of problem behavior. According to the results of this research it is possible that problematic behaviors can be deterred so that individuals and society would benefit. Instructors must recognize the importance of creating an effective learning environment that supports these constructs to enhance student learning and increase the ability to transfer learning to successful job performance. The Faculty can better understand how to create reflective learning environments in the university to enhance student learning outcomes. The results of this study may be useful in making recommendations about potential interventions with educational populations.

This study addresses the need for the Ministry of Education and higher education and other institutions involved in youth social issues and progress which in some cases are involved in social policy making. It will also support the needs of the families and family development centers.

Findings

Regarding the goal of the current research, the findings of the first question indicates that anger control training affects students' emotional intelligence. With regard to this effect, we can say that individuals with high emotional intelligence have lower anger expression and higher anger control Schutte et al. (2001). Also, the findings indicate that the effect of anger control training on emotional intelligence total score and on elements of anger control is significant and that individuals with a higher emotional intelligence have fewer mood problems and attributes of anger. These results emphasize the findings of Nelis, Quoidbach, Mikolajczak, and Hansenne (2009) confirming that emotional intelligence has positive effect in terms of anger management and that teaching anger control skills causes an increase inemotional intelligence.

Regarding the result of the second research question of the present study, as the findings of the second question reveal, teaching stress control affects overall EI. This finding supports Taylor and Novaco (2004) who have studied the United States college students' emotional intelligence training on reducing stress in the second year.

The third question of the research: regarding the goal of the present research, as the findings of the third question reveal, teaching social relations skills has a significant effect on the students'emotional intelligence. Schutte et al. (2001) have studied the effect of emotional intelligence on the quality of social relations. This research has been conducted among the students and the results confirm that there is a negative

significant correlation between emotional intelligence and the interpersonal problems of the students.

On the fourth research question, on which training method has a stronger effect on students'emotional intelligence, based on the results of ANCOVA, the effect of the training in increasing students' emotional intelligence is statistically significant. Based on the evidence and the information we can conclude that the methods employed in training anger management skills have had a stronger effect on students'emotional intelligence. These results emphasize the findings of Eftekhar Saadi (2010) stating that teaching emotional intelligence has a positive correlation with the decrease in aggression among first grade high school girls. Also, the findings of Naqdi, Adib Raad, and Nuranipur (2010) support the findings of this research.

Conclusions

Emotional Intelligence Training Program Development is essential among university students. Generally, researchers claimed that students need early exposure to emotional intelligence programs in order to succeed in their environment because it incorporates a number of abilities, including the ability to be aware of one's own and others' emotions, to be able to manage those emotions, and to understand the complex relationships that can occur between emotions and likely emotional transition (Austin, 2009; Mayer & Salovey, 1997). Both descriptive and correlation studies regarding emotional intelligence notably originate from earlier efforts (Goleman, 2005), while recent studies are more inclined to concentrate more on the training of emotional intelligence. Due to its advocacy in the possibility of increasing emotional intelligence, developing a quality emotional intelligence program has become more and more crucial for researchers (Schutte, 2001). The resources providing exercises for emotional intelligence improvement are readily available but a review of these resources revealed

a lack of detailed training program information related to research particularly those related to university students (Jensen et al., 2007; Lin et al., 2011; Salami, 2010). Moreover, several studies showed that within the realm of emotional intelligence and the measurement of emotional intelligence improvement throughout the training, there is lack of reporting regarding effective learning designs that have been empirically tested (Eichmann, 2009; Weis & Arnesen, 2007).

Many studies (Boyatzis, Stubbs, & Taylor, 2002; Goleman, 1998; Mayer & Salovey, 1997; Murray, Jordan, & Ashkanasy, 2006; Stubbs, 2005) have evidenced the successful development of EI among employees and managers. For instance, The American express program is one of the pioneering intelligence training programs aimed at increasing the trainees' understanding of their own emotions and to find ways to manage their emotional reactions. Findings revealed that approximately 90% of the training participants claimed positive job-related benefits from the program. Moreover, the company's growth sales revenue increased by 11% when compared to other units whose management did not take part in the training program (Cherniss & Caplan, 2001). In a related study, Boyatzis (2001) conducted a longitudinal study and revealed success in developing emotional intelligence in MBA students, and the findings revealed improvement on emotional intelligence competencies (cognitive, self-management, and relationship management). In another related study, Dulewicz and Higgs (2004) studied 59 middle managers in their scheduled one-day-per week training program in a span of four weeks. The study made use of a paired-sample *t*-test analysis which revealed statistically significant improvements in the managers' total EQ score as well as on five of the seven elements of emotional intelligence.

Therefore, the purpose of this study was to develop students' emotional intelligence by training program of anger management skills training, stress management skills training and interpersonal communication skills training courses and

to evaluate how the training influenced students' emotional intelligence among freshmen female university students. The training program for this study was developed based on three sources: anger management training, interpersonal communication skills training and stress management training books (Farsi version) (Motaby & Fathey, 2006a, 2006b, 2006c).

Implications of the Research

This research is important in two aspects: (a) Studies of overall emotional intelligence in community college students are in their infancy, and (b) This study demonstrated the impact of curricular intervention as a treatment method for increasing female first year university students' overall emotional intelligence. This approach has been used in only one other study in the literature (Jaeger, 2004) and that did not involve female first year university students, much less community college students. The students' overall emotional intelligence was significantly increased in the limited scope population, which this study addressed; clearly there are a multitude of opportunities for increasing emotional intelligence in community college settings.

Students who are underprepared academically could benefit from the self-awareness and self-management competencies to more effectively tackle obstacles that might otherwise trouble them. Changing one's mindset from defeat to possibility using techniques of anger management, stress management and interpersonal communication skills could be a significant paradigm shift for many students. Accessing resources on campus through better interpersonal skills, whether it is approaching and interacting with faculty or knowing how to use learning resources available on all college campuses, would certainly help students stay on a path of persistence. Recognizing the benefits of delaying gratification and keeping impulse control in check early in first year university female students would prevent some of the current and on-going expense

and frustration. Learning to adapt in an ever-changing world environment is surely a competency that will be required of all students in their lives as the world does indeed become more interconnected and interdependent. For an accomplished and educated adult, much of this seems obvious. To underprepared first year university female students getting ready to compete in this global environment, it may not be obvious.

Curricular intervention in anger management, stress management and interpersonal communication skills makes a difference and our students need it. Emotional intelligence is indeed in the early stages of research especially in higher education. Much more research has been conducted over the past two decades at the two other extremes of the population: in schools (Elksnin & Elksnin, 2003; Obiakor, 2001; Shelton, 2003) and in the workplace (Bellack, 1999; Cherniss & Goleman, 2001; Glass, 2007). Traditional age college students are adolescents who are becoming adults and making life-changing choices in terms of lifestyle, employment, and career goals. This population provides fertile ground for on-going research as all stakeholders, including parents, university administrators, taxpayers, and the students themselves continue to seek ways to improve success rates in terms of persistence and preparation for the future. Today's students are going to be tomorrow's political and business leaders, medical specialists, teachers, scientists, entrepreneurs, artists, and parents. The urgent need to be academically prepared to compete and thrive in tomorrow's world is not lost on anyone. Perhaps the more we understand about non- academic aspects such as emotional intelligence and their contribution to overall success, the better able we may be to address the social, economic, and political challenges that face all citizens.

Implications for Counselors

It is assumed that most university students are adolescents and young adults between the ages of 20-30 years being in their late adolescence and early adulthood, and

during the transition period to university many problems confront them, including physical, social, academic, and emotional adjustment. A major hurdle for the students during this time is in engaging emotions, developing autonomy, and developing interpersonal relationship. Many students find the transition from high school to college or university very stressful; this is in part due to the many new challenges that students must face in the first month of classes, such as making new relationships, managing their time and budgets and adapting to a new learning environment with higher academic expectations. Given the increased demand on students during this transition, counselors can help new students through group counseling for training in the three skills for identifying the emotions enables students to be more conscious of them, thus providing the basis for a good understanding of identification in oneself and others. Using emotion management through training will enhance emotional intelligence and this increase brings about a feeling or strengthens the spirit of group collaboration. Understanding the emotions causes intuition toward the individuals' motivations and makes us more aware of others' viewpoints. Controlling the emotions in a proper way is a skill that follows awareness. Students efficient in this field can better get rid of negative emotions such as stress, anxiety, anger and loneliness and face fewer problems in life's ups and downs; in case of any problem they can quickly move back from troublesome conditions to desirable conditions.

Counselling can help students with realistic goals which are meaningful to accept some frustrations, failures, and sorrows. Besides that, training in anger management, stress management and interpersonal skills management can encourage students to be kind, gentle with themselves and others and adjust to the new campus life.

Limitations of the Study

In order to obtain a female new students groups, this type of sample may be a limitation since the findings may not be generalizable to populations not included in this study.

1-Additional research will be needed in order to determine whether the results from this study can be generalized to other populations.

2-The instrument used in this study, the Bar-On EQ-i is a self-reporting instrument.

3-A limitation of this study was the time factor; there was no follow-up to ascertain the longer term impact of the intervention on the students'EI.

Suggestions for Further Research

Given the findings of this study, the following are some recommendations for further research:

1. Since this study involved only female university students, a similar kind of study should be performed in other groups (high school/secondary school students) and using a sample of both males and females.
2. It is suggested that the study be replicated using other instruments than the self-reporting instrument.

3-The best suggestion of this study is to repeat this study by following up the longer term impact of the intervention on the students' EI.

REFERENCES

Abdi, A., & Sharifi, P. (2008). *The relationship between EQ and feeling anger* (Unpublished MA research project, Roodehen Azad University Tehran). (Persian).

Adler, K. A. (1989). Techniques that shorten psychotherapy. *Individual Psychology, 45,* 62–74.

Afsha Niakan. (2004*). Comparison between emotional adjustment, social and educational among male and female students of high shcool in Tehran.* (Unpublished doctoral dissertation, Zahra University, Tehran).

Aghayi, M. (2005). *Relationship between EI to adaptability in students* (Master's thesis, Tehran University).

Ahankoub. (1993). *Comparison between educational performance and social adaptation among male and female students of high shcool in Ahvaz*. (Unpublished Master's thesis, Ahvaz University, Iran).

Ahmad Malshi Pour. (2011). *The role of emotional intelligence training in academic achievement in students of high school.* (Unpublished M.A thesis, University of Tehran). (Persian).

Allport, G. W. (1961). *Pattern and growth in personality*. New York, NY: Rinehart & Winston.

Allport, G. W. (1937). *Personality: A psychological interpretation*. New York, NY: Holt.

Aminiha Najafloy. (2004). *The role of emotional intelligence training in academic achievement in students of high school.* (Unpublished MA thesis, University of Tehran).

Anderson, J. W. (1988). Henry Murray's early career. A psychobiographical exploration. *Journal of Personality, 56,* 138-171.

Andrews, D. A., & Bonta, J. (2002). *The psychology of criminal conduct* (3rd ed.). Cincinnati, OH: Anderson.

Andrews, D., & Kiessling, J. (1980). Program structure and effective correctional practices: A summary of the CaVIC research. In R. R. Ross & P. Gendreau (Eds.), *Effective correctional treatment* (pp. 439-463). Toronto, Canada: Butterworth.

Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does treatment work? A psychologically informed meta-analysis. *Criminology, 28,* 369-404.

Antonowicz, D. H., & Ross, R. R. (1994). Essential components of successful rehabilitation programs for offenders. *International Journal of Offender Therapy and Comparative Criminology, 38,* 97-104.

Arbib, A., & Rizzolatti, G. (1997). Neural expectations: A possible evolutionary path from manual skills to language. *Communication and Cognition, 29,* 393-424.

Arbib, M. (2002). The mirror system, imitation and the evolution of language. In C. Nehaniv & K. Dautenhahn (Eds.), *Imitation in animals and artifacts* (pp. 229-280). Cambridge, MA: The MIT Press.

Ashforth, B. E. (2001). The handbook of emotional intelligence. [Book Review]. *Personnel Psychology, 54*(3), 721-725.

Austin, E. J. (2009). A reaction time study of responses to trait and ability emotional intelligence test items. *Personality and Individual Differences, 46,* 381-383.

Averill, J. L. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist, 38,* 1145–1160.

Bahari, Y. (2004). *The relationship between stress and EQ* (Unpublished MA thesis, Roodehen Azad University Tehran) (Persian).

Bakan, G., & Akyol, A. D. (2008). Theory-guided interventions for adaptation to heart failure. *Journal of Advanced Nursing, 61,* 596–608. doi: 10.1111/j.1365-2648.2007.04489.x

Baker, R. W., & Siryk, B. (1999). *Student Adaptation to College Questionnaire: Manual.* Los Angeles, CA: Western Psychological Services.

Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology, 3*(3), 265-299.

Barchard, K. A. (2003). Does emotional intelligence assist in the prediction of academic success? *Educational & Psychological Measurement, 63,* 840-859.

Bar-On, R. (1988). *The development of a concept of psychological well-being*. (Unpublished doctoral dissertation, Rhodes University, South Africa).

Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: User's manual*. Toronto, Canada: MultiHealth Systems.

Bar-On, R. (1997a). *The Emotional Quotient Inventory(EQ-i): A test of emotional intelligence*. Toronto, Canada: Multi-Health Systems.

Bar-On, R. (1997b). *The Emotional Quotient Inventory (EQ-i): Technical manual.* Toronto, Canada: Multi-Health Systems.

Bar-On, R. (2000). Emotional and social intelligence: insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On & J. D. A. Parker (Eds.), *Handbook of emotional intelligence*. San Francisco, CA: Jossey-Bass.

Bar-On, R. (2001). Emotional intelligence and self-actualization. In J. Ciarrochi, J. Forgas, & J. D. Mayer (Eds.), *Emotional intelligence in everyday life: A scientific inquiry*. New York, NY: Psychology Press.

Bar-On, R. (2002). *EQ-i Bar-On Emotional Quotient Inventory: Technical manual*. North Tonawanda, NY: Multi-Health Systems.

Bar-On, R. (2003). How important is it to educate people to be emotionally and socially intelligent and can it be done*? Perspectives in Education, 21,* 3-13.

Bar-On, R. (2005). The impact of emotional intelligence on subjective well-being. *Perspectives in Education, 23*(2), 41-61.

Bar-On, R. (2007). The Bar-On model of emotional intelligence: A valid, robust and applicable EI model. *Organisations and People, 14,* 27-34.

Bar-On, R. (2010). Emotional intelligence: An integral part of positive psychology. *South African Journal of Psychology*, *40*(1), 54-62.

Bar-On, R., Handley, R., & Fund, S. (2005). The impact of emotional and social intelligence on performance. In Vanessa Druskat, Fabio Sala, & Gerald Mount (Eds.), *Linking emotional intelligence and performance at work: Current research evidence*. Mahwah, NJ: Erlbaum.

Bar-On, R., & Parker, D. A. (2000). *Handbook of Emotional Intelligence*. San Francisco, CA: Jossey Bass.

Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Soc Psychiatry Epidemiol., 43,* 667–672.

Bellack, J. P. (1999). Emotional intelligence: A missing ingredient. *Journal of Nursing Education, 38*(1), 3-4.

Berkowitz, L. (1990, April). On the formation and regulation of anger and aggression: A cognitive-neoassociationistic analysis. *American Psychologist, 45*(4), 494-503. doi: 10.1037/0003-066X.45.4.494

Berman, S., O'Neill, J., Fears, S., Bartzokis, G., & London, E. D. (2008). Abuse of amphetamines and structural abnormalities in the brain. *Annals of the New York Academy of Science, 1141,* 195–220.

Bern-Klug, M. (2010, September). *Tell me a story: Emotional consequences of advanced chronic illness*. Western Illinois Area Agency on Aging Annual Conference, Moline, IL.

Besharat, M. (2007). Relation between EI and interpersonal problems of students. *Psychological Studies Quarterly, 3,63,* 840-859.

Besharat, M. A. (2010). Attachment styles and alexithymia. *Psychological Research, 24,* 63-80. [Farsi]

Besharat, M. (2011). Relation between emotional intelligence and anger among students. *Procedia - Social and Behavioral Sciences, 30,* 1109 – 1112.

Binet, A. (1886). *La psychologie du raisonnement* [The psychology of reasoning]. Paris, France: Alcan.

Binet, A. (1887). Le fétichisme dans l'amour. *Revue Philosophique, 24,* 143–167, 252–274.

Bond, B., & Manser, R. (2009). *Emotional Intelligence interventions to increase student success*. Toronto, Canada: Higher Education Quality Council of

Boyatzis, R. E. (1994). Stimulating self-directed change: A required MBA course called Managerial Assessment and Development. *Journal of Management Education, 18*(3), 304-323.

Boyatzis, R. E. (2001). Unleashing the power of self-directed learning, accessed at http://www.eiconsortium.org/research/self-directed-_learning.htm

Boyatzis, R. E., Cowen, S. S. & Kolb, D. A. (1995). *Innovation in professional education: Steps on a journey from teaching to learning*. San Francisco, CA: Jossey-Bass.

Boyatzis, R. E., Goleman, D., & Rhee, K. (1999). Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI). In R. Bar-On & D. A. Parker (Eds.), *Handbook of Emotional Intelligence*. San Francisco, CA: Jossey-Bass.

Boyatzis, R. E., Stubbs, E. C. & Taylor, S. N. (2002). Learning cognitive and emotional intelligence competencies through graduate management education. *Academy of Management Learning and Education,1*(2), 150-162.

Boyle, J. R. (2003). An analysis of an emotional intelligence skills development training program and student achievement and retention. Unpublished raw data, Texas A & M University, Kingsville.

Bradberry, T., Greaves, J., Ememrling, R., Sanders, Q., Stamm, S., Su, L. D., & west, A. (2003). Emotional Intelligence Appraisal Technical Manual. TalentSmart .

Bradley, J., White, B. J., & Mennecke, B. E. (2003). Teams and tasks: A temporal framework for the effects of interpersonal interventions on team performance. *Small Group Research, 34*, 353–387.

Brady, C. G. (1998). *The relationship between emotional intelligence and underachievement in adolescence*. (MA dissertation, University of Pretoria, South Africa).

Brooks, J. H., & DuBois, D. L. (1995). Individual and environmental predictors of adjustment during the first year of college. *Journal of College Student Development, 36*, 347–360.

Brown, V. R., & Paulus, P. B. (2002). Making group brainstorming more effective: Recommendations from an associative memory perspective. *Current Directions in Psychological Science, 11*, 208–212.

Capara, G. V., Regalia, C., & Bandura, A. (2002). Longitudinal impact of perceived self-regulatory efficacy on violent conduct. *European Psychologist, 7*, 63–69.

Chang, P. P., Ford, D. E., Meoni, L. A., Wang, N., & Klag, M. J. (2002). Anger in young men and subsequent premature cardiovascular disease: The precursors study. *Archives of Internal Medicine, 162*(8), 901-906.

Cherniss, C., & Caplan, D. R. (2001). Implementing emotional intelligence programs in organizations. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 254-285). San Francisco, CA: Jossey -Bass.

Cherniss, C., & Goleman, D. (Eds.). (2001). *The emotionally intelligent workplace*. San Francisco, CA: Jossey -Bass.

Chesney, M., & Rosenman, R. (1980). Type A behavior in the work setting. In C. Cooper & R. Payne (Eds.), *Current concerns in occupational stress* (pp. 187-12). London, UK: Wiley.

Chickering, A. W., & Reisser, L. (1993). *Education and identity* (2nd ed.). San Francisco, CA: Jossey-Bass.

Ciarrochi, J., Deane, F. P., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences, 32*(2), 197–209.

Ciarrochi, J., Forgas, J. P., & Mayer, J. D. (Eds.). (2001). *Emotional intelligence in everyday life: A scientific inquiry* (pp. 82-97). New York, NY: Psychology Press.

Ciarrochi, J. V., Forgas, J. P., & Mayer, J. (Eds.). (2006). *Emotional intelligence: A scientific approach.* (2nd ed.). New York, NY: Psychology Press.

Clore, G. L., & Ortony, A. (2000). Cognition in emotion: Always, sometimes, or never? In R. D. Lane & L. Nadel (Eds.), *Cognitive neuroscience of emotion* (pp. 24-61). London, UK: London University Press.

Cobb, Casey D., & Mayer, J. D. (2000). Educational policy on Emotional Intelligence: Does it make sense? *Educational Psychology Review*, *12*(2), 163-183..

Coghlan, D. (1993). A person-centred approach to dealing with resistance to change. *Leadership and Organization Development Journal, 14*(4), pp. 10-4.

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Englewood Cliffs, NJ: Pearson.

Damasio, A. (1994). *Descartes error: Emotion, reason and the human brain*. New York, NY: Grosset/Putnam

Damasio, A. R. (1999). *The feeling of what happens: Body and emotion in the making of consciousness.* New York, NY: Harcourt Brace.

Darwin, C. (1871). *Descent of man.* Review retrieved from http://devon.freepgs.com

Day, A. L., & Carroll, S. A. (2000). Faking emotional intelligence (EI): Comparing response distortion on ability and trait-based EI measures. *Journal of Organizational Behavior, 29,* 761–784.

Dehghan. (2007). *The role of emotional intelligence training academic achievement in students of high school.* (Unpublished M.A thesis, Azad University of Tehran) (Persian).

Dehshiri, R. (2003). *The reliability and validity of EQ-i in Iran's context*. (Unpublished Master's thesis, Allame Tabataba'i University, Tehran, Iran).

Dembroski, T. M., MacDougall, J. M., Williams, R. B., Haney, T. L., & Blumenthal, J. A. (1985). Components of Type A, hostility, and anger- in: Relationship to angiographic findings. *Psychosomatic Medicine, 47,* 219–233.

Diamond, M., & Hopson, J. (1998). *Magic trees of the mind: How to nurture your child's intelligence, creativity, and healthy emotions from birth through adolescence*. New York, NY: Dutton

Domitrovich, C. E., Corest, R. C., & Greenberg, M. T. (2007). Improving young children's social and emotional competence: A randomized trial of the preschool "PATHS" curriculum. *The Journal of Primary Prevention, 28*(2), 67–91.

Downing, S. (2008). *On course: Strategies for creating success in college and in life.* Boston, MA: Houghton Mifflin.

Dulewicz, V., & Higgs, M. (2004). Can emotional intelligence be developed? *International Journal of Human Resources Management, 15,* 95-111.

Eaker, E. D., Sullivan, L. M., Kelly-Hayes, M., D'Agostino, R. B., Sr., & Benjamin, E. J. (2004). Anger and hostility predict the development of atrial fibrillation in men in the Framingham Offspring Study. *Circulation,109*(10), 1267-1271.

Eftekhar Sa'adi. (2010). Training anger control on improve the emotional intelligence. *Iran's Journal of Cognitive Psychology,* p. 28.

Eichmann, K. (2009). *The effectiveness of training to improve the emotional intelligence of leaders*. (Unpublished doctoral dissertation, TUI University).

Elder, L. (1997). Critical thinking: The key to emotional intelligence. *Journal of Developmental Education, 21*(1), 40-41.

Elias, M. J., Hunter, L., & Kress, J. S. (2001). Emotional intelligence in the classroom. In J. Ciarrochi, J. P. Forgas, & J. D. Mayer (Eds.), *Emotional intelligence in everyday life: A scientific inquiry* (pp. 133-149). New York, NY: Psychology Press.

Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., & Shriver, T. P. (1997). *Promoting social and emotional learning: Guidelines for educators*. Alexandria, VA: Association for Supervision and Curriculum Development.

Elksnin, L. K., & Elksnin, N. (2003). Fostering social-emotional learning in the classroom. *Education, 124*(1), 63-75.

Ellis, A. (1957). Rational psychotherapy and individual psychology. *Journal of Individual Psychology, 13,* 38–44.

Engle, R. W., Carullo, J. J., & Collins, K. W. (1991). Individual differences in working memory for comprehension and following directions. *Journal of Education Research, 84,* 253–262.

Esmaiel Sadri. (2009). Impact of social - emotional learning skills instruction on emotional intelligence of male. *Psychiatry and Clinical Psychology Quarterly of Iran,* p. 39.

Faraghdani. (2004). *The role of emotional intelligence A effect of anger management in cardiac and cancer patients*. (Ph.D thesis, Tehran University).

Ferro, T. R. (1993). Influence of affective processing in education and training. In D. D. Flannery (Ed.), *Applying Cognitive Learning Theory to adult learning (New Directions for Adult and Continuing Education, No. 59).* San Francisco, CA: Jossey-Bass,

Fischer, C. S., Jankowski, M. S., Hout, M., Lucas, S. R., Swidler, A., & Voss, K. (1996). In *Inequality by design: Cracking The Bell Curve myth*. Princeton, NJ: Princeton University Press.

Fisher, A. (1998). Success secret: A high emotional IQ. *Fortune,* pp. 293-298.

Fisher, C. D., & Ashkanasy, N. M. (2000). The emerging role of emotions in work life: An introducction. *Journal of Organizational Behavior, 21,* 123-129

Ford, D. L., Mead, L. A., Chang, P. P., Cooper-Patrick, L., Wang, N.-Y., & Klag, M. J. (1998). Depression is a risk factor for coronary artery disease in men: The Precursors Study. *Arch Intern Med., 158,* 1422- 1426.

Friedman, R., Anderson, C., Brett, Jeanne, Olekalns, Mara, Goates, N., & Lisco, Cara Cherry. (2004, April). The positive and negative effects of anger on dispute resolution: Evidence from electronically mediated disputes. *Journal of Applied Psychology, 89*(2), 369-376.

Frijda, N. H., & Zeelenberg, M. (2001). Appraisal: What is the dependent? In K. R. Scherer, A. Schorr, & T. Johnstone, (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 141-155). London, UK: London University Press.

Gall, F. J., & Spurzheim, J. C. (1835). *On the Functions of the Brain and of Each of Its parts: With Observations on the Possibility of Determining the Instincts, Propensities, and Talents, Or the Moral and Intellectual Dispositions of Men and Animals, by the Configuration of the Brain and Head, Vol. 1*. Boston, MA: Marsh, Capen & Lyon.

Galton, F. (1909). *Memories of my life.* New York, NY: E. P. Dutton.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books. (New Editions: 1993, 2004)

Gardner, H. (1999a). *Intelligence reframed: Multiple intelligences for the 21st century*. NewYork, NY: Basic Books.

Gardner, H. (1999b). *The disciplined mind*. New York, NY: Simon & Schuster.

Gardner, H. (2000). *Intelligence reframed: Multiple Intelligences for the 21st Century.* New York, NY: Basic Books.

Garrett, C. J. (1985). Effects of residential treatment on adjudicated delinquents: A meta-analysis. *Journal of Research in Crime and Delinquency, 22,* 287-308.

Gausel, N., & Leach, C. W. (2011). Concern for self-image in the management of moral failure: Rethinking shame. *European Journal of Social Psychology, 41*(4), 468-478).

Gendreau, P. (1996). The principles of effective intervention with offenders. In A. Harland (Ed.), *Choosing correctional options that work: Defining the demand and evaluating the supply*. Thousand Oaks, CA: SAGE.

Gensheimer, Leah K., Mayer, J. P., Gottschalk, R., & Davidson II, W. S. (1986). Diverting youth from the juvenile justice system: A meta-analysis of intervention efficacy. In S. Apter & A. Goldstein (Eds.), *Youth violence: Programs and prospects*. *Pergamon general psychology series Vol 135* (pp. 39-57). Elmsford, NY: Pergamon Press.

Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling and Development, 72,* 281–288.

Ghazi, A. (2004). *The relationship between anxity and EQ* (Unpublished MA thesis, Tehran University (Persian)).

Glass, N. (2007). Chapter 6: Investigating women nurse academics' experiences in universities: The importance of hope, optimism, and career resilience for workplace satisfaction. *Annual Review of Nursing Education, 5,* 111-136.

Glasser, W. (1984). *Control theory: A new explanation of how we control our lives*. New York, NY: Harper & Row.

Glasser, W. (1992). Reality therapy. *New York State Journal for Counseling and Development, 7*(1), 5-13.

Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ for character, health and lifelong achievement*. New York, NY: Bantam.

Goleman, D. (1998). *Working with emotional intelligence*. New York, NY: Bantam.

Goleman, D. (2001). *Emotional intelligence: Issues in paradigm building*. New York, NY: Bantam.

Goleman, D. (2005). Introduction to the tenth anniversary edition. In *Emotional intelligence*. New York, NY: Bantam

Goleman, D. (2006). *Social Intelligence: The new science of human relationships.* New York, NY: Random House.

Goleman, D. (2011). *The brain and Emotional Intelligence: New insights*. [e-book] More Than Sound LLC.

Gottschalk, R., Davidson II, W. S., Mayer, J. P., & Gensheimer, L. K. (1987). Behavioral approaches with juvenile offenders: A meta-analysis of long-term treatment efficacy. In E. K. Morris & C. K. Braukmann (Eds.), *Behavioral Approaches to crime and delinquency* (pp. 399-422). New York, NY: Plenum Press.

Greenberg, M. T., Kusche, C. A., & Riggs, N. (2004). The PATHS curriculum: Theory and research on neuro-cognitive development and school success. In J. E. Zins, R. P. Weissberg, M. C. Wang & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 170-188). New York, NY: Teachers College Press.

Groebel, J. (1998). *The UNESCO Global Study on Media Violence: A joint project of UNESCO, the World Organization of the Scout Movement and Utrecht University, The Netherlands.* Report presented to the Director General of UNESCO. Paris, France: UNESCO.

Hall, D. T., & Chandler, D. E. (2007). Career cycles and mentoring. In B. R. Ragins & K. E. Kram (Eds.), *Handbook of mentoring* (pp. 471-498). Thousand Oaks, CA: Sage.

Halonen, J. S., & Santrock, J. W. (1997). *Human adjustment*. New York, NY: McGraw-Hill.

Hansen, K., Lloyd, J., & Stough, C. (2009). Emotional Intelligence and clinical disorders. In C. Stough, D. Saklofske & J. Parker (Eds.), *Assessing Emotional*

Intelligence: Theory, research and applications (pp. 219-237). New York, NY: Springer.

Harmon-Jones, E., Sigelman, J. D., Bohlig, A., & Harmon- Jones, C. (2003). Anger, coping, and frontal cortical activity: The effect of coping potential on anger-induced left frontal activity. *Cognition and Emotion, 17,* 1–24

Herrnstein, R. J., & Murray, C. (1994). *The Bell Curve: Intelligence and class structure in American life*. New York, NY: The Free Press**.**

Hogan, Brenba E., & Linden, W. (2005). Curvilinear relationships of expressed anger and blood pressure in women but not in men: Evidence from two samples. *Journal of Psychosomatic Research, 59*(2), 97-102.

Isen, A. M. (2009). A role for neuropsychology in understanding the facilitating influence of positive affect on social behavior and cognitive processes. In S. Lopez & C. R. Snyder (Eds.), *Oxford handbook of Positive Psychology* (2nd ed., pp. 503-518). NY: Oxford.

Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem- solving. *Journal of Personality and Social Psychology, 52,* 1122–1131.

Izzo, R., & R. Ross (1990). Meta-analysis of rehabilitation pograms for juvenile delinquents: A brief report. *Criminal Justice and Behavior, 17,*134-142.

Jaeger, A. J. (2004). The Place for Emotional Growth in Professional Education. *Journal of Public Affairs Education, 10*(1), 43-65.

Jafari Tossi. (2007). *Emotional Intelligence Training on academic achievement of students.* (MA thesis, Tehran University).

Jensen, S., Cohen, C., Rilea, S., Hannon, R., & Howells, G. (2007). Emotional intelligence: A literature review. University of the Pacific. Retrieved from ttp://web.pacific.edu/Documents/library/acrobat/EI%20Lit%20Review%202007%20Final.pdf

Johnson-Frey, S. H., Maloof, F. R., Newman-Norlund, R., Farrer, C., Inati, S., & Grafton, S. T. (2003). Actions or hand-objects interactions? Human inferior frontal cortex and action observation. *Neuron, 39,* 1053–1058

Jorgensen, R. S., Johnson, Blair T., Kolodziej, Monika E., & Schreer, G. E. (1996). Elevated blood pressure and personality: A meta-analytic review. *Psychological Bulletin,120*(2), 293-320. doi: 10.1037//0033-2909.120.2.293

Julius, S. (1992). Relationship between the sympathetic tone and cardiovascular responsiveness in the course of hypertension. In E. H. Johnson, W. D. Gentry, & S. Julius (Eds.), *Personality, elevated blood pressure and essential hypertension* (pp. 219-230). Washington, DC: Hempishere.

Kassinove, H. (1995). *Anger disorders: Definition, diagnosis, and treatment*. Washington, DC: Taylor & Francis.

Kaufman, A. S. (2000). Tests of intelligence. In R. J. Sternberg (Ed.), *Handbook of intelligence* (pp. 445–476). New York, NY: Cambridge University Press.

Khosro Javid. (2005). *The role of emotional intelligence training in academic achievement in students of high school.* (Unpublished doctoral thesis, University of MODARES) (Persian)

Lam, L. T., & Kirby, S. L. (2002). Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *Journal of Social Psychology, 142*(1), 133-143.

Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of Emotion. *American Psychologist, 46*(8), 819-834.

Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology, 44,* 1±21.

Lazarus, R. S. (1994). Psychological stress in the workplace. In R. Crandall & P. L. Perrewe (Eds.), *Occupational stress: A handbook.* New York, NY: Taylor & Francis.

Leeper, R. W. (1948). A motivational theory of emotion to replace emotionl as disorganized response. *Psychological Review, 55,* 5-21.

Leuner, B. (1966). *Emotionale Intelligenz und Emanzipation* [Emotional intelligence and emancipation]. *Praxis der Kinderpsychologie und Kinderpsychiatry, 15,* 196–203.

Lin, Y., Lee, T., Hsu, S., & Lin, S. (2011). What causes the emotional intelligence suffered by students at universities and colleges of technology? *World Transactions on Engineering and Technology Education, 9*(2), 102-108.

Lipsey, M. W. (1992). Juvenile delinquency treatment: A meta nalytic inquiry into the variability of effects. In T. D. Cook, H. Cooper, D. S. Corday, H. Hartmann, L. V. Hedges, R. J. Light, T. A. Louis, & F. Mosteller (Eds.), *Meta-analysis for explanation: A casebook* (pp. 83-127). New York, NY: Russell Sage.

Lipsey, M. W. (2003). Those confounded moderators in meta-analysis: Good, bad, and ugly. *The Annals of the American Academy of Political and Social Science, 587,* 69-81.

Lipsey, M. W., & Wilson, D. B. (1993). The efficacy of psychological, educational, and behavioral treatment: Confirmation from meta-analysis. *American Psychologist, 48,* 1181–1209.

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality and the perceived quality of social relationships. *Personality and Individual Differences, 3,* 641-659.

Lopez, G., Custodio, V., & Moreno, J. I. (2010). LOBIN: E-Textile and Wireless-Sensor-Network-Based Platform for Healthcare Monitoring in Future Hospital Environments. *IEEE Transactions on Information Technology in Biomedicine, 14*(6), pp. 1446-1458.

Love, P. G., & Guthrie, V. L. (Eds.) (1999). Understanding and applying cognitive development theory. *New Directions for Student Services, 88*. San Francisco, CA: Jossey-Bass.

Low, G., & Nelson, D. (2005). Emotional intelligence: The role of transformation learning in academic excellence. *Texas Study of Secondary Education, 14*(2), pp. 41-44.

MacKenzie, D. L., & Hickman, L. J. (1998). *What works in corrections? An examination of the effectiveness of the type of rehabilitation programs offered by Washington State Department of Corrections: Report to the State of Washington Legislature Joint Audit and Review Committee*. College Park, MD: University of Maryland.

Maslow, A. (1998). *Towards a psychology of being* (3rd ed.). New York, NY: Wiley.

Mansooreh Nikoogoftar. (2006). *The role of emotional intelligence training in academic achievement & general health in students of high school.* (Unpublished Doctoral thesis, University of Tehran) (Persian)

Mansouri, F. (1998). *Simple and multiple relationships between self-esteem, loneliness and social anxiety with students' assertiveness in high schools of Ahvaz*. (Unpublished master's thesis, Islamic Azad University of Ahvaz) (Persian)

Mansur Javadi, & Javad Ezheyi. (2004). The role of trait emotional intelligence in academic performance and deviant behavior at school. *Personality and Individual Differences, 36,* 277-293.

Maslow, A. (1998). *Towards a psychology of being* (3rd ed.). New York, NY: Wiley.

Ma'sume Esmaeeli, Ahadi, Delavar, & Shafee Abadi. (2007). *Psychological Studies Quarterly, 49,* p. 185

Matthews, G., Zeidner, M., & Roberts, R. D. (2002). *Emotional intelligence: Science and myth*. Cambridge, MA: The MIT Press.

Matthews, G., Zeidner, M., & Roberts, R. D. (2004). Seven myths of emotional intelligence. *Psychological Inquiry, 15,* 179–196.

Mayer, J. D. (2001). A field guide to emotional intelligence. In J. Ciarrochi, J. P. Forgas, & J. D. Mayer (Eds.), *Emotional intelligence in everyday life: A scientific inquiry* (pp. 3-24). Philadelphia, PA: Psychology Press.

Mayer, J. D., & Geher, G. (1996). Emotional intelligence and the identification of emotion. *Intelligence, 22*(3), 89–113.

Mayer, J. D., & Hanson, E. (1995). Mood-congruent judgment over time. *Personality and Social Psychology Bulletin, 21*, 237-244.

Mayer, J. D., Panter, A. T., & Salovey, P (2005). A discrepancy in analyses of the MSCEIT: Resolving the mystery and understanding its implications. *Emotion, 5,* 236-237.

Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence, 17*(4), 433-442.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York, NY: Basic Books.

Mayer, J. D., & Salovey, P. (2005). *EQ For Everybody: A Practical Guide to the Developing and Using One's Emotional Intelligence* (pp. 26, 30-35).

Mayer, J. D., Salovey, P., & Caruso, D. (2000). Emotional intelligence as Zeitgeist, as personality, and as a mental ability. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of Emotional Intelligence* (pp. 396-420). San Francisco, CA: Jossey-Bass.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). What is emotional intelligence and what does it predict? In P. C. Kyllonen, R. D. Roberts, & L. Stankov (Eds.), *Extending intelligence: Enhancement and new constructs* (pp. 319-348). Mahwah, NJ: Erlbaum.

Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT v2.0. *Emotion, 3*(1), 97-105.

Mayer, R. E. (2008). *Learning and instruction* (2nd ed.). Boston, MA: Pearson.

Mayer, R. E. (2009). *Multimedia learning* (2nd ed). New York, NY: Cambridge University Press

Mayer, R. E. (2011). *Applying the science of learning*. Boston, MA: Pearson.

McCombs, B. L. (2004). The learner-centered psychological principles. In J. E. Zins, R. P. Weissberg, M. C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning* (pp. 23-39). New York, NY: Teachers College Press.

Mehrabian, A. (2009). "Silent Messages": A Wealth of Information About Nonverbal Communication (Body Language). Retrieved from http://www.kaaj.com/psych/smorder.html

Mikolajczak, M., & Luminet, O. (2008). Trait emotional intelligence and the cognitive appraisal of stressful events: An exploratory study. *Personality and Individual Differences, 44*, 1445– 1453.

Moazzeni, T. (2007). *Effects of self expression training on the level of sense of safety in female students of GAT schools.* (Doctoral dissertation, Allameh Tabatabayi University).

Morey, L. C. (1996). *An interpretive guide to the Personality Assessment Inventory (PAI).* Tampa, FL: Psychological Assessment Resources.

Motaby, F. & Fathey, L. (2006a). *Anger management skills*. Tehran, Iran: Danzhh.

Motaby, F., & Fathey, L. (2006b). *Effective communication skills*. Tehran, Iran: Danzhh.

Motaby, F. & Fathey, L. (2006c). *Stress management skills*. Tehran, Iran: Danzhh.

Murphy, R. F., Penuel, W. R., Means, B, Korbak, C, Whaley, A., & Allen, J. E. (2002). *A review of recent evidence on the effectiveness of discrete educational software.* Washington, DC: Planning and Evaluation Service, US Department of Education.

Murray, C. (1998). *Income inequality and IQ*. Washington, DC: AEI Press.

Murray, J. P., Jordan, P. J., & Ashkanasy, N. M. (2006). *Training to improve emotional intelligence and performance: What interventions work?* Paper presented at the 20th Annual Conference of the Annual Meeting of the Australian and New Zealand Academy of Management, Rockhampton, Australia.

Najib Ahmad Marzuki. (2012). The effects of emotional intelligence on the perceived fairness and suitability of personnel selection procedures. *International Proceedings of Economics Development and Research (IPEDR), 40.* Retrieved from http://www.ipedr.com/vol40/009-ICPSB2012-P00012.pdf

Naqdi, Adib Raad, N., & Nuranipur, M. (2010). Effect of anger management training on Emotional Intelligence. *Cognitive Sciences News Quarterly, 29,* p. 87.

Nelis, D., Quoidbach, J., Mikolajczak, M., & Hansenne, M. (2009). Increasing emotional intelligence: (How) is it possible? *Personality and Individual Differences, 47,* 36–41.

Newsome, S., Day, A. L., & Catano, V. M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29,* 1005–1016.

Novaco, R. W. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan & H.J. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment*. Chicago, IL: University of Chicago Press.

Novaco, R. W. (2003). *The Novaco Anger Scale and Provocation Inventory (NAS-PI).* Los Angeles, CA: Western Psychological Services.

Novaco, R. W., & Renwick, S. J. (2002). Anger predictors and the validation of a ward behavior scale for anger and aggression. Unpublished manuscript.

Novaco, R. W., & Taylor, J. L. (2004). Assessment of anger and aggression in male offenders with developmental disabilities. *Psychological Assessment, 16,* 42-50.

Obiakor, F. E. (2001). Developing emotional intelligence in learners with behavioral problems: Refocusing special education. *Behavioral Disorders, 26*(4), 321-331.

Ogilvie, J., & Carsky, M. (2002). Building emotional intelligence in negotiations. *The I nternational Journal of Conflict Management, 13*(4), 381-400.

Palfai, T. P., & Salovey, P. (1993). The influence of depressed and elated moods on deductive and inductive reasoning. *Imagination, Cognition, and Personality, 13,* 57-71.

Palmer, B. R., Manocha, R., Gignac, G., & Stough, C. (2003). Examining the factor structure of the Bar-On Emotional Quotient Inventory with an Australian general population sample. *Personality and Individual Differences, 35,* 1191–1210.

Palmer, B. R., & Stough, C. (2002). *Swinburne University Emotional Intelligence Test (Workplace SUEIT). Interim technical manual (Version 2).* Victoria: Swinburne University of Technology.

Parker, J. D. A., Summerfeld, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences, 36,* 163-173.

Payizi, M. (2006). *Effects of self- expression training on life improving and educational progress of female students studying in the second year of high school.* (Doctoral dissertation, Allameh Tabataba'i University).

Payne, W. L. (1986). A study of emotion: Developing emotional intelligence, self-integration, relating to fear, pain, and desire. *Dissertation Abstracts International, 47,* 203.

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). *The positive impact of social and emotional learning for kindergartern to eighth-grade students: Findings from three scientific reviews* (Technical Report). Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

Perry, B. (1997). Incubated in terror: Neurodevelopmental factors in the cycle of violence. In J. Osofsky (Ed.), *Children, youth and violence: Searching for solutions* (pp. 124–149). New York, NY: Guilford Press.

Pfeiffer, J. W., & Jones, J. E. (1996). *Introduction to the structured experiences*. San Diego, CA: University Associates.

Pfeiffer, S. I. (2001). Emotional intelligence: A popular but elusive construct. *Roeper Review, 23,*138-142.

Plake, B. S., & Impara, J. C. (Eds.) (1999). *Supplement to the thirteenth mental measurement yearbook.* Lincoln, NE: Buros Institute for Mental Measurement.

Pourakbar. (2007). *The role of emotional intelligence training in academic achievement in students of high school.* (Unpublished M.A thesis, University of Modares). (Persian).

Ramazan-khani, Ali, & Sayyari, Ali-Akbar. (1999). *Investigating the status of teaching life skills in the education system*. Research report. UNICEF Organization of Iran and the Office of International Studies of the Ministry of Education.

Reis, D. L., Brackett, M. A., Shamosh, N. A., Kiehl, K. A., Salovey, P., & Gray, J. (2007). Emotional intelligence predicts individual differences in social exchange reasoning. *NeuroImage, 35,* 1385-1391.

Rivers, S. E., Brackett, M. A., Katulak, N. A., & Salovey, P. (2007). Regulating anger and sadness: An exploration of discrete emotions in emotion regulation. *Journal of Happiness Studies, 8*, 393-427.

Rogers, C. R. (1961). A theory of therapy, personality and interpersonal relationships, as developed in the client-centered framework. In S. Koch (Ed.), *Psychology: A study of science* (pp. 184-256). New York, NY: McGraw-Hill.

Rogers, C. R. (1995). What understanding and acceptance mean to me. *Journal of Humanistic Psychology, 35*(4), 7-22.

Rosenberg, Erika. L., Ekman, P., Jiang, W., Babyak, M., Coleman, R. E., Hanson M., . . . Blumenthal, J. A. (2001). Linkages between facial expressions of anger and transient myocardial ischemia in men with coronary artery disease. *Emotion, 1,* 107–115.

Ross, S. E., Niebling, B. C., & Heckert, T. M. (1999). Sources of stress among college students. *College Student Journal, 32,* 312–317.

Salami, S. D. (2010). Emotional intelligence, self -efficacy, psychological well-being and students attitudes: Implication for quality education. *European Journal of Educational Studies, 2*(3), 247-257.

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*(3), 185-211.

Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science, 14,* 281-285.

Salovey, P., Hsee, C. K., & Mayer, J. (2001). Emotional intelligence and the self-regulation of affect. In W. G. Parrott.(Ed.), *Emotions in social psychology: Essential readings* (pp. 185-198). New York, NY: Psychology Press.

Salovey, P., & Mayer, J. D. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). New York, NY: Basic Books.

Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait

Meta- Mood Scale. In J. W. Pennebaker (Ed.), *Emotion, disclosure, and health* (pp. 125-154). Washington, DC: American Psychological Association.

Salovey, P., Woolery, A., & Mayer, J. D. (2001). Emotional intelligence: Conceptualization and measurement. In G. Fletcher & M. Clark (Eds.), *The Blackwell handbook of social psychology* (pp. 279–307). London, UK: Blackwell.

Schmalleger, F. (2004). *Criminal justice: A brief introduction*. Upper Saddle River, NJ: Pearson Prentice Hall.

Schneider, M., & Yin, L. (2011). The hidden costs of community colleges. American Institute for Research, available at www.air.org.

Schum, J. L., Jorgensen, R. S., Verhaeghen, P., Sauro, M., & Thibodeau, R. (2003). Trait anger, anger expression, and ambulatory blood pressure: A meta-analytic review. *Journal of Behavioral Medicine, 26*, 395-415.

Schutte, N. S. (2006). Techniques for developing emotional intelligence. In C. Stough, D. Saklofske, & K. Hansen (Eds.), *Research on Emotional Intelligence: International Symposium 2005* (pp. 77-88). Melbourne, Australia: Tertiary Press.

Schutte, N. S., Malouff, J. M., Bobik, C., Conston, T., Greeson, C., Jedlicka, C., Rhodes, E., & Wendorf, G. (2001). Emotional intelligence and interpersonal relations. *Journal of Social Psychology, 141,* pp. 523–536.

Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior: Vol. 2* (pp. 527–561). New York, NY: Guilford Press.

Shapiro, F. (2001). The challenges of treatment evolution and integration. *American Journal of Clinical Hypnosis, 43,* 183–186.

Sharf, R. S. (1994). Assessment of career decisions making: Test review. In J. T. Kapes, M. M. Mastie, & E. A. Whitfield (Eds.), *A counselors guide to assessment instruments* (3rd ed.) (pp. 248-252). Alexandria, VA: National Career Development Association.

Sharf, R. S. (2010). *Theories of psychotherapy and counseling: Concepts and cases* (5th ed.). University of Delaware.

Shelton, J. N. (2003). Interpersonal concerns in social encounters between majority and minority group members. *Group Processes and Intergroup Relations, 6,* 171-185.

Shirin Valizadeh, Rahman Berdi Ozouni Davaji, & Mitra Nikamal. (2010). *Procedia Social and Behavioral Sciences, 5,* pp. 1195–1199.

Shokouhi Yekta, M., Zamani, N., & Parand, A. (2008). Effectiveness of anger management training in mothers' interaction with mentally disabled children. *Journal of Cognitive Psychology, 2,* 28.

Siegman, A. W., Townsend, S. T., Blumenthal, R. S., Sorkin, J. D., & Civelek, A. C. (1998). Dimensions of anger and CHD in men and women: Self-ratings versus spouse ratings. *Journal of Behavioral Medicine, 21,* 315-336.

Sifneos, P. E. (1973). The prevalence of 'alexithymic' characteristics in psychosomatic patients. *Psychotherapy and Psychosomatics, 22,* 255-262.

Simon, G. E, & VonKorff, M. (1991). Somatization and psychiatric disorder in the NIMH epidemiological catchment area study. *American Journal of Psychiatry, 148,* 1494-1500.

Skala, J. A., Freedland, K. E., & Carney, R M. (2006). Coronary heart disease and depression: A review of recent mechanistic research. *Canadian Journal of Psychiatry, 51*(12), 738-745.

Smith, C. A., & Lazarus, R. S. (1993). Appraisal components, core relational themes, and the emotions. *Cognition and Emotion , 7,* 233–269.

Smith, T. W., & Ruiz, J. M. (2002). Psychosocial influences on the development and course of coronary heart disease: current status and implications for research and practice. *Journal of Consultant and Clinical Psychology, 70,* 548- 568.

Snyder, C. R., & Lopez, Shane, J. (2007). *Positive psychology: The scientific and practical explorations of human strengths* (pp. 297–321). Thousand Oaks, CA: Sage.

Spada, M. M., Nikčević, A. V., Moneta, G. B., & Wells, A. (2008). Metacognition, perceived stress, and negative emotion. *Personality and Individual Differences, 44*(5), 1172-1181.

Stevens, T. G., & Stevens, Sherry Bene. (2000). Workshops and classes for academic and life success (Live and online). Presented at National First Year Conference – West, San Francisco. Retrieved from www. Csulb. Edu/ ~ caps.

Stough, C., Saklofske, D., & Parker, J. (Eds.) (2009). *Assessing Emotional Intelligence: Theory, research, and applications*. New York, NY. Springer.

Strike, P. C., Wardle, J., & Steptoe, A. (2004). Mild, inflammatory stimulation induces transient negative mood. *Journal of Psychosomatic Research, 57,* 189–194.

Strobl, J., & Bruce N. (2000). Achieving wider participation in strategic health planning: Experience from the consultation phase of Liverpool's City Health Plan. *Health Promotion International,15,* 215-225.

Stubbs, Elizabeth C. (2005). *Emotional intelligence competencies in the team and team leader: A multi-level examination of the impact of emotional intelligence on group performance.* (Unpublished Ph.D dissertation, Case Western Reserve University).

Suls, J., Wan, C. K., & Costa, P. (1995). Relationship between trait anger and resting blood pressure: A meta-analysis. *Health Psychology, 14,* 444-456.

Swart, A. (1996). *The relationship between well-being and academic performance.* (Unpublished master's thesis, University of Pretoria, South Africa).

Tangney, J. P., Wagner, P., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology, 62,* 669-675.

Taylor, J. L., & Novaco, R. W. (2005). *Anger treatment for people with developmental disabilities: A theory, evidence and manual based approach*. London, UK: Wiley.

Thorndike, E. L. (1920). Intelligence and its use. *Harper's Magazine, 140,* 227-235.

Timberlak, T. (2000). *Comprehensive approach to social skills training with urban African-American adolescents*. (Ph. D. dissertation, Temple University). AAT 9966011.

Tinto, V. (2001). Rethinking the first year of college. *Higher Education Monograph Series.* Syracuse, NY: Syracuse University.

Triplet, R. G. (1992). Henry A. Murray: The making of a psychologist? *American Psychologist, 47,* 299–307.

Tudor, K. (1996). Mental Health Promotion: Paradigms and practice. London: Routledge.

UNICEF. (2003). Which skills are "Life Skills" WWW.LifeSkills-BasedEducation.

Van Voorhis, F. L. (2000). *The effects of TIPS interactive and non-interactive homework on science achievement and family involvement of middle grade students*. Unpublished doctoral dissertation, University of Florida, Gainesville.

Wagner, R. K., Torgeson, J. K., & Rashotte, C. A. (1994). Development of reading-related phonological processing abilities: New evidence of bidirectional causality from a latent variable longitudinal study. *Developmental Psychology, 30,* 73-87.

Watson, D., Wiese, D., Vaidya, J., & Tellegen A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76,* 820–838.

Wechsler, D. (1940). No intellective factors in general intelligence. *Psychological Bulletin, 37,* 444-445.

Wechsler, D. (1958). *The measurement and appraisal of adult intelligence* (4th ed.). Baltimore, MD: Williams & Wilkins.

Weis, W. L., & Arnesen, D. W. (2007). "Because EQ can't be told": Doing something about emotional intelligence. *Journal of Organizational Culture, Communications and Conflict, 11*(2), 113-123.

Williams, R. B. (1994). Neurobiology, cellular and molecular biology, and psychosomatic medicine. *Psychosomatic Medicine, 56,* 308-315.

Wong, C., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly, 13*(3), 243-274.

World Health Organization. (1996). *Life skills education: Planning for research*. Geneva, Switzerland: Division of Mental Health and Prevention of Substance Abuse.

World Health Organization. (2006). Preventing Violence by Developing Life Skills in Children and Adolescents. Retrieved from http://www.who.int/mental health

Zahra Eftekhar Saadi, Mahnaz Mehrabi Zadeh Honarmand, Bahman Najarian, Hasan Ahadi, & Parviz Askari. (2012). Evaluation of the Effect of Emotional Intelligence Training on Reducing Aggression in Second Year High School Female Students. *Journal of American Science, 8*(5), 209-212. http://www.americanscience.org.

Zamani Forushania, & Besharat, M. (2011). Relation between emotional intelligence and perceived stress among female students. *Procedia - Social and Behavioral Sciences, 30,* 1109 – 1112.

Zarrati, F. (2006). Relation between EI and the styles of attachment. *Cognitive Sciences News Quarterly, 29,* 68.

Zeidner, M., & Olnick-Shmesh, D. (2010). Emotional intelligence and subjective well-being revisited. *Personality and Individual Differences, 48*(4), 431-435.

Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional intelligence in the workplace: A critical review. *Applied Psychology, 53*(3), 371-399.

Zins, J. E., & Elias, M. J. (2006). Social and emotional learning. In G. G. Bear & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 1–13). Bethesda, MD: National Association of School Psychologists.

Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg, H.J. (Eds.). (2004). *Building academic success on social and emotional learning: What does the research say?* New York, NY: Teachers College Press.