# Testing the Model of Attachment, Facial Emotion Recognition, Emotion Regulation, Emotional Perspective Taking, and Depression in Female Adolescents

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## ABSTRACT

**Objective:** Depression is a growing public health problem, which needs more consideration in primary care settings. By focusing primarily on developmental psychology, attachment style is one of the most influential variables on the risk of internalized disorders. Although attachment styles have strong effects in emotional aspect of human mental life, emotional turbulence and dysfunction are considered as key factors in depression disorder. This study aimed to examine the effect of attachment styles on emotion recognition, emotion regulation, emotional perspective taking, and depression in multivariate space. To this end, attachment styles are considered as input separately; emotion recognition in three categories (neutral, negative, and positive), emotion regulation, and emotional perspective taking set as mediator of equation; and depression as an output.

**Methods:** Participants were all high-school students, selected based on multistage random sampling method. Finally, 296 students participated in the study and all ethical issues included informed consent were approved by the Ethics Committee of University of Isfahan. Statistical analysis was done by AMOS 22 and SPSS 22. The study instruments were attachment styles questionnaire (ASQ) by Hazen and Shaver (1987), facial emotion recognition pictures by Ekman and Frizen (1978), emotion regulation skills questionnaire (ERSQ) by Berking and Znoj (2008), emotional perspective taking dilemmas, and Beck depression inventory (BDI-II) (1996). The data analysis was done using Structural Equation Modeling.

**Results:** According to model fit indices of $\chi^2 = 2703.41$, df = 1804, CFI = 0.86, and RMSEA = 0.04, this model relatively appropriate fit the adolescents girls sample, thus the main hypothesis of the study was confirmed. In addition, attachment styles have direct and indirect effects on depression. The indirect effect of attachment styles were mediated through emotion recognition, emotion regulation, and emotional perspective taking.

**Conclusion:** Attachment styles have a strong and significant effect on emotional state and also probability of depression of adolescent girls. Children in secure relationship learn to recognize and regulate their emotions in addition to taking others' perspective about emotional filed. Thus, in facing high pressure situations of adolescence, they would experience lower levels of depression.

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## 1. Introduction

**D**epression has been categorized by WHO as the fourth most common debilitating clinical disorder. Early onset of depression (before age 21) needs particular concern because of its longer first episodes, longer hospitalization, higher rates of comorbid disorders, like substance use disorder. Other studies postulated that poor health and behavioral consequences, including higher risks of disruptive behavior, anxiety, unsafe sexual practice, and greater likelihood of being involved in fights are associated with severe degree of depression in adolescents (Saluja et al., 2004). Studying the origin of such prevalent disorder in 350 million people worldwide, including 7.6% to 11.9% of people in Europe and US (Baumeister & Harter 2007; Wittchen & Jacobi, 2005) is the main purpose of many studies in the last decade.

One of the many studied variables in relation to depression, is the quality of attachment. Bowlby (1973) reported that attachment behaviors would result from an evolutionary bio-behavioral system. This system provides a survival advantage by keeping young children close to care providers at times of threat and danger. Young children with well-functioning attachment relationships progressively explore environment, because they have a secure base to take refuge at times of threat (Ainsworth, Blehar, Waters, & Wall, 1978).

Furthermore, numerous studies found direct effects of insecurity of attachment on the onset of depression (Bifulco et al., 2004; Meredith & Noller, 2003). Internal working model (representation of the self, attachment figures, and relationships in general, which guides later interactions with people) is the core concept in attachment theory; problematic relationships in early life are represented mentally as negative internal working model.

Close relationships with caregivers play a unique role in shaping children's affective and emotional life (Cassidy & Shaver, 2008). Many studies revealed that emotional turbulence and disorders would result in dysfunctional attachment styles (Siegel, 2012). Saarni (1999) identified 8 basic emotional skills which all together called emotional competence; these 8 skills are summarized in 3 broad areas, including emotion recognition, understanding, and regulation.

Niedenthal, Brauer, Robin, and Innes-Ker (2002) reported that adults with different attachment styles had variations in the perceptual discrimination of emotional

recognition. Caregiver's emotionally expressive face is considered as one of the most potent stimuli involved in emotional learning during childhood (Tomkins, 1991). Ekman (1992a) proposed the involvement of facial emotion in the formation of an attachment system, which has a crucial influence on the development and regulation of interpersonal relationships.

Making clarification between emotions and labeling them are skills that are essential in emotion recognition, while these are considered as elements of emotion regulation. Kopp (1989) defined emotion regulation as an ability to modify and control the arousal of feelings related to emotional experience and the defining feature of emotion regulation was the activation of a goal to influence the emotion trajectory (Gross, Sheppes, & Urry, 2011). Literature has shown that aspects of emotion regulation are associated with positive developmental outcomes (e.g., social competence) (Contreras & Kerns, 2000) and play a critical role in clinical conditions (e.g., externalizing problems, anxiety) (Brumariu, Kerns, & Seibert, 2012; Mullin & Hinshaw, 2007).

Shaver and Mikulincer (2002) along with Mikulincer, Shaver, and Pereg (2003) presented models in which security of attachment was associated with much more development of primary strategies of affect regulation. However, insecure child-caregiver relations form blocking processes, which restrict children to develop adaptive strategies. It is likely that children also learn by observing attachment figures' expression of their own emotions and regulation abilities (Denham, Bassett, & Wyatt, 2010).

By adolescents' cognitive growth, they are expected to show better progress in emotional competence, particularly in emotional understanding and judgment about others. The capacity is known as emotional perspective taking, which refers to the skill of judgment and predicting of self and others' feelings and behavior in different emotional situations (Van Boven & Loewenstein, 2005a). In other words, when others are in different emotional situations from oneself, especially when the situation arouse different emotional states, the assumption that others' attitudes, preferences, and behaviors are the same as one's own can lead to biased, ill-considered, and regrettable social behavior (Van Boven & Loewenstein, 2005a).

According to Van Boven and Loewenstein (2005b) studies, emotional perspective taking encompasses a 2-stage judgment system acts on predicting oneself's feeling and behavior and then another one's feelings and behaviors in a different emotional situation. Few studies addressed the possible relationship between forenamed

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variable (emotional perspective taking) with other psychological traits. However, Soltani Azemat, Dolatshahi, and Nori Khajavi (2015) found significant differences between normal people and patients with bipolar disorder by comparing emotional theory of mind.

Today about 4% of adolescent girls referred to clinics are diagnosed with depression. Adolescence age is an acute period in which teenagers are required to attain their identity. Thus, risk of having such a disruptive disease in the critical age could eventuate in more possibility of dropout, early sexual relations, and suicide behaviors. As described before and with regard to the previous theories and studies, it is obvious that there is a complicated and multivariate relationship amongst attachment styles, facial emotion recognition, emotion regulation, emotional perspective taking, and depression.

Because children with secure base attachment styles have more opportunity to experience emotional situations, as well as being more informed about the emotional content, we hypothesized that attachment styles can be one of the influential factors in forming the ability of recognizing emotions, regulate them, and adopting other's views in such affective situations. On the other hand, possessing such abilities can lead to better function (both in intrapersonal and interpersonal relationship), which is a very important known factor in vulnerability to depression.

On one hand, there are numerous studies which examined one dimension of such relationships, while etiological importance of depression disorder needs particular attention in a multivariate condition. For example in the study of Sepehryan Azar, Asadi Mojre, Asad Nia and Farnoudi (2014), attachment styles were found as an influential variable on emotion regulation and NayebiNia, Salari and Ghoravi (2015) found negative relationship between secure attachment style and depression. On the other hand, Salehi, Mazaheri, Aghajani and Jahanbazi (2015) found that different aspects of emotion regulation strategies significantly predict depression among university students.

Emotion recognition was studied among depressed patients and normal people by Ghasempour, et al. (2012). They reported that emotion recognition in normal people had significant difference compared to depressed patients. No study so far has addressed the relationship or effect of emotional perspective taking or facial emotion recognition on depression. Although many studies (as mentioned before in this study) examined just one aspect of such complicated relationships and effects, but no study has ever discussed all these variables in one coherent model.

Since depression is recognized as one of the most disabling diseases, particularly in adolescents who are in a critical period of their life (due to identity task), research about the etiology of such disorder should be in priority. On the other hand, studying the effect of attachment styles on broad aspects of cognitive-behavioral system of adolescent girls has practical values both for schools and families. The result of the present study could benefit broad areas such as family therapists, mental health institutions, female study centers, and juvenile correctional centers. In other words, the present study investigates the most effective factors, or etiology of depression disorder, to extract a much more useful educational and intervention pack for reducing the probability of depression disorder and increasing the quality of close relation between parents and the youth.

So far, an extensive study in Iran has not been conducted to review the effects of attachment styles on emotional variables (emotion regulation, facial emotion recognition and emotional perspective taking) and effects of these variables on depression on depression, in one structural equation model among adolescent girls. For this purpose, an effect model of mentioned variables was developed; so model fit as well as direct and indirect effects were all examined. The main purpose of this study was examining the model fit of attachment styles, facial emotion recognition, emotion regulation skills, emotional perspective taking and depression. Although direct and indirect effects of attachment styles on depression with regard to mediating role of emotion regulation, facial emotion recognition, and emotional perspective taking were also considered as the minor purposes.

## 2. Methods

The present study was a descriptive one with structural equation modeling analysis. Study population consists of all adolescent girls in Esfahan City (Iran) and target population of the present study could be all of psychologists and psychotherapist who work with adolescents, particularly in depression recovery, school authorities, and family counselors. According to adequate sample size for structural equation modeling analysis studies, which is 280 individuals, the research sample of present study comprised 320 high school students who were selected based on multistage simple randomized sampling method. To this end, out of different 15 geographical districts of Isfahan City, district number 5 was randomly selected and out of 5 different neighborhoods of the district, 3 sections were selected.

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Finally, out of all high schools of these neighborhoods, 10 high schools were selected and the test was administered to some classrooms (all level were included). At each step selection was conducted randomly. Out of 320 participants who filled out the questionnaires, 296 girls were eligible for the study. The inclusion criteria of the study were as follows: 1) being between 14 and 18 years old, 2) having sufficient fluency in Persian both in reading and writing skills, and 3) having sufficient visual ability. The exclusion criteria was unwillingness to participate in the study and incomplete filling of the questionnaire.

In this study, the effect of attachment styles on emotion regulation, emotion recognition, emotional perspective taking, and also depression and the effect of these emotional variables (emotion regulation, emotion recognition and emotional perspective taking) on depression were checked in multivariable term via a model in a sample of 296 high-school girl students. The attachment styles were considered as input; emotion regulation, emotion recognition and emotional perspective taking as mediator; and depression as output of the model equation. All three aspect of attachment styles (secure, non-secure avoidance, and non-secure ambivalence) were separately entered as input of the equation, also for more accuracy facial emotion recognition as a mediator were divided into three aspects of positive emotion recognition (happiness) , neutral (surprise), and finally negative emotion recognition (upset, sadness, fear, disgust).

After initial data analyses, we considered all variables as latent variable except emotional perspective taking. Since emotional perspective taking is a qualitative variable; we considered it as an explicit variable. To test the path analysis of the equation in an adolescent girls sample and to identify possible indirect effects, model fit indices and also direct and indirect effects were evaluated. After a brief review of the filled out questionnaires, all data and statistical analyses were done by SPSS 22 and AMOS 22. The statistical analysis of the study was checked through structural equation modeling.

All study procedures were compiled based on APA ethical guidelines and approved by the ethics committee of the University of Isfahan. Moreover, school members informed the parents of all students involved in this study about the purpose and the execution of this study as an additional part of the procedure of the ethics committee of the University of Isfahan. Also, general school department professionals carefully reviewed the questionnaires used in this study and informed consent was taken from all study participants. The average (SD) age of the participants was 15.78(0.98) years.

Attachment styles of adolescents girls were tested by Hazen and Sheiver (1987) questionnaire. This scale consists of three sub-scales which are Avoidance, Secure as well as ambivalence attachment style. Items Number 1 to 5 deal with the Avoidance style, Number 6 to 10 show Secure style and items Number 11 to 15 address Ambivalence styles of attachment. Hazen and Sheiver (1987) reported high test-retest validity about 0.87 and 0.78 for internal consistency This scale was administered on 1480 students in Iran by Doost Mohammdi (2011). The internal consistency of the tool in Iranian sample was 0.86 for secure, 0.84 for avoidance, and 0.85 for ambivalence non-secure subscales. The psychometric properties of the scale were also examined in the present study and internal consistency of 0.84 and its good fit model indices is in confirmatory factor analysis indicate a valid and reliable source of data.

The ERSQ is a 27-item questionnaire by Berking and Znoj (2008), which evaluates emotion regulation skills in a range of 9 subscales of 1) Awareness, 2) Sensation, 3) Clarity, 4) Understanding, 5) Acceptance, 6) Tolerance, 7) Confrontation, 8) Self-support, 9) Modification, with the help of a 5-point Likert-type scale. Internal consistency of the scale in German sample is about 0.96 and shows the high internal consistency. In Iranian sample internal consistency of 0.9 and good fit indices were reported by Moradi, Lukas, Amiri, and Berking (In press).

The facial emotion recognition test by Ekman & Frizon (1978), which evaluates 6 basic facial emotions (anger, fear, happiness, disgust, surprise, sadness) was used in this study. They showed the emotional photos of more than 100, to quite large sample and from 70 to 100 percent  of all participants report correct name of each picture which is to somehow good validity of the test. In Iran, the internal consistency of 0.71 was reported by Amiri, GHasempour, Fahimi, Abolghasemi, and Akbari (2013). In the present study, Kuder-Rechardson coefficient of 0.87 indicates a reliable data.

The BDI-II is a 21-item self-report inventory measuring the severity of depression in adolescents and adults (13 years and older). The BDI-II was revised in 1996 to be more consistent with DSM-IV criteria for depression. Total scores of 0–13 indicates minimal depression, 14–19 mild depression, 20–28 moderate depression, and 29–63 severe depression. A large body of research supports the notion that the BDI-II is a psychometrically sound instrument with internal consistency rates described as 0.9 and the retest reliability ranging from 0.73 to 0.96 (Wang & Gorenstein, 2013).

Research on the psychometric properties of the Persian version of the BDI-II (BDI-II-Persia; Ghassemzadeh, Mojtabai, Karamghadiri, & Ebrahimkhani, 2005) provides good evidence with high internal consistency (Cronbach α = 0.87) and acceptable test-retest reliability (r = 0.74). In the present study, the psychometric properties of BDI-II was about 0.87 which indicates good reliability of the scale in high-school student sample.

Emotional perspective taking dilemmas which were developed by the author of the present study was used. For developing the test, 10 short stories each of them depicting one type of basic emotions were examined in several pilot studies. The content validity of the test was checked by experts in psychology in this field. The agreement of evaluators was checked by Pearson coefficient which was around 0.81 and supported the valid evaluation of responses.

## 3. Results

Table 1 presents mean scores and standard deviation of the variables with each subscale among high-school students. Figure 1 presents the model. All coefficients were exhibited by the arrows. As shown in the model, attachment styles are separately considered as independent variables. Emotion regulation skills, emotional perspective taking, and three dimensions of emotion recognition were considered as mediators, and depression as one dependent variable or output of equation. With regard to fit indices of the model (CFI = 0.85, RMSEA = 0.04, $\chi^2$ = 2703.41, df = 1804, P < 0.001), which were presented in Table 2, the model has excellent fit.

All direct effects of each variable on depression as a dependent variable of this study are presented in Table 3. The direct effects of attachment styles, emotional perspective taking, emotion regulation skills, and negative facial emotion recognition on depression were all significant, while positive and neutral facial emotion recognition had no significant effect on depression.

According to bootstrap estimate of bias-corrected percentile method, the mediating role of emotion regulation skills, negative facial emotion recognition, and emotional perspective taking were confirmed. Thus, three indirect effects of attachment styles on depression (presented in Table 3) indicated that secure attachment, non-secure ambivalence, and non-secure avoidance styles had all significant indirect effects on depression. Obviously, emotion regulation skills, negative facial emotion recognition, and emotional perspective taking partially mediated the effect of attachment styles on depression disorder.

Since two aspects of emotion recognition as mediator of equation had no significant effect on depression, in correction model these two dimensions were eliminated from the model and finally corrected model were presented in Figure 2. Model fit indices of corrected model were presented in Table 4. As shown in the Table 4, CFI and RMSEA both were in better situation in the second model.

Based on the results, the main hypothesis of this research was confirmed. So the model of attachment styles, emotion regulation, emotional perspective taking, facial emotion recognition, and depression had model

**Table 1.** Descriptive data of attachment styles, facial emotion recognition, emotion regulation, emotional perspective taking, and depression

| Variable | Mean | SD |
|---|---|---|
| Avoidance style | 12.91 | 4.3 |
| Secure style | 14.12 | 4.8 |
| Ambivalence style | 15.06 | 5.1 |
| Positive emotion recognition | 5.7 | .61 |
| Negative emotion recognition | 17.63 | 5.3 |
| Neutral emotion recognition | 5.48 | 1.5 |
| Emotion regulation | 85.14 | 17.13 |
| Emotional perspective taking | 5.8 | 1.7 |
| Depression | 21.33 | 12.18 |

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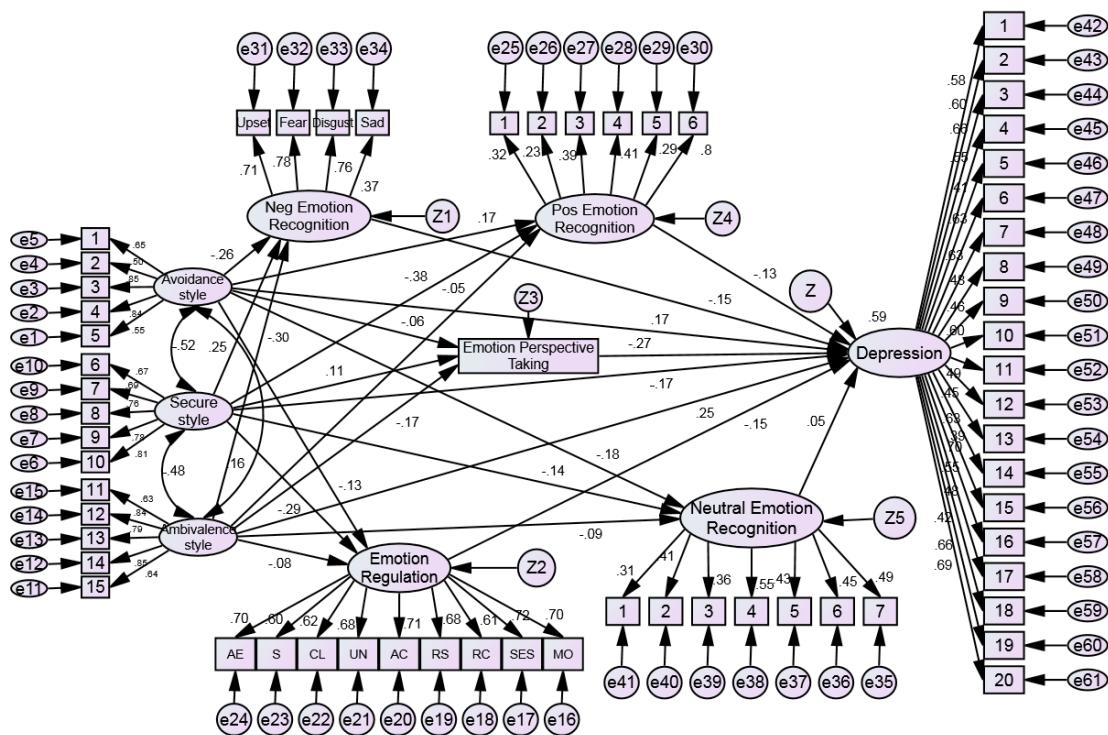
**Figure 1.** Model of attachment styles, emotion regulation, facial emotion recognition, emotional perspective taking, and depression

fit. The mediation role of emotion regulation, emotional perspective taking, and negative facial emotion recognition was obvious in the effects of attachment styles on depression. In other words, the effects of attachment styles on depression were mediated through emotion regulation, facial emotion recognition, and emotional perspective taking. Furthermore direct effects of attachment styles on depression were all significant. Thus, attachment styles had both direct and indirect influences on the probability of depression disorder.

## 4. Discussion

Testing the effect model of attachment styles, emotion recognition, emotion regulation, emotional perspective taking on depression was the main study purpose. To consider every possible path analysis of the equation, each kind of attachment styles was entered as a separate latent independent variable; also emotion recognition was divided into three categories of positive, nega-

tive, and neutral emotion recognition. Positive emotion recognition indicates happiness while neutral emotion recognition regarded surprise and negative emotion recognition betokened for upset, sadness, fear, and disgust emotions. The three categories of emotion recognition as well as emotion regulation and emotional perspective taking were considered as mediator of the equation and finally depression was the dependent variable. All variables were entered as latent except emotional perspective taking which had qualitative test and considered as explicit variable to gain more accuracy.

With regard to the good fit indices of the model, the main hypothesis of this study was confirmed. In other words, the observed covariance matrix of the equation was equal to reproduction matrix. Furthermore, significant direct and indirect effects of the equation revealed that attachment styles besides direct effect had indirect effects on depression, so negative emotion recognition,

**Table 2.** Fit indices of the study model

| Model | $\chi^2$ | df | P | CFI | RMSEA |
|---|---|---|---|---|---|
| First model | 2703.41 | 1804 | 0.001 | 0.86 | 0.04 |

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**Table 3.** Direct and indirect effects of the model on dependent variable (depression)

| Independent Variable | Effect | Standard Estimate | Significance |
|---|---|---|---|
| Avoidance | Direct | 0.17 | 0. 04 |
| Secure | Direct | -0.17 | 0. 02 |
| Avoidance | Direct | 0.25 | 0.01 |
| Negative emotion recognition | Direct | -0.14 | 0.004 |
| Positive emotion recognition | Direct | -0.14 | 1.5 |
| Neutral emotion recognition | Direct | -0.05 | 0.88 |
| Emotion regulation | Direct | -0.16 | 1.8 |
| Emotional perspective taking | Direct | -0.29 | 1.5 |
| Avoidance | Indirect | 0.2 | 0.007 |
| Secure | Indirect | -0.17 | 0.006 |
| Avoidance | Indirect | 0.25 | 0.03 |

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emotion regulation and emotional perspective taking mediated these effects on depression.

A brief review of previous studies like Berking, Writz, Svaldi and Hofmann (2014); Berking and Wupperman (2012); Mennin and Farach (2007), reveals that non-

security of attachment is turbulence in interpersonal relationship. Gotlib and Hammen, (1992) believed that insecurity of attachment was an important risk factor for depression. Also Wilkinson and Mulcahy (2010) found that women with insecure attachment figure reported higher scores in depression tests. Murphy and
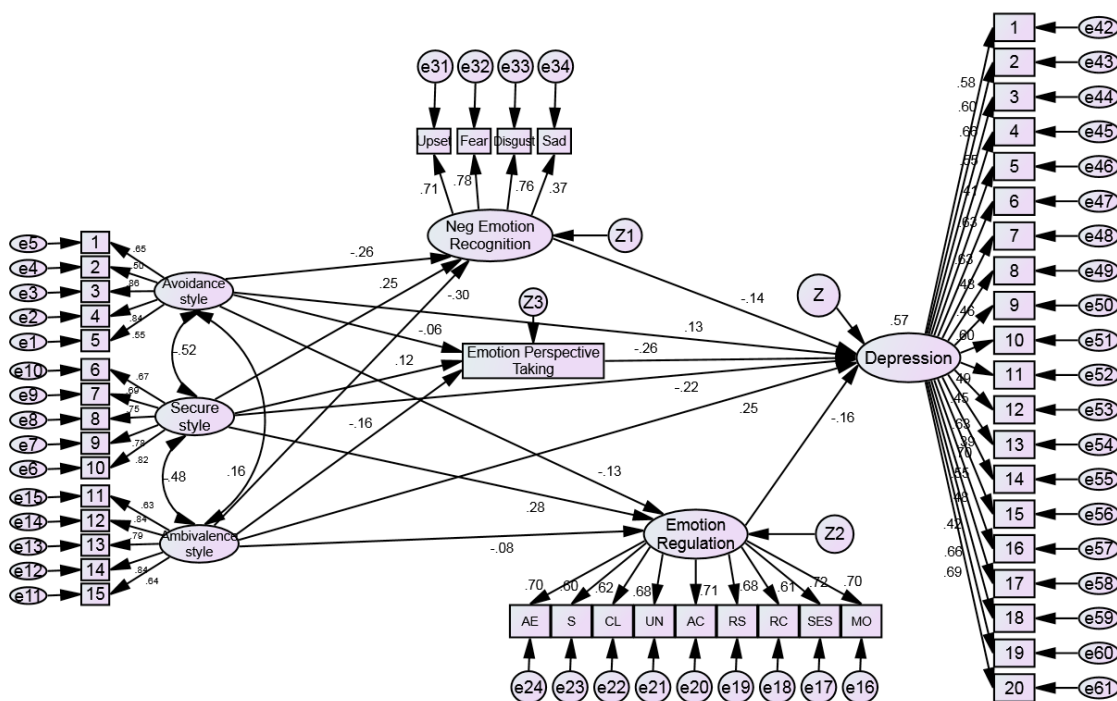


**Figure 2.** Corrected model of the attachment styles, emotion regulation, negative facial emotion recognition, emotional perspective taking, and depression

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**Table 4.** Fit indices of the corrected model

| Model | χ² | df | P | CFI | RMSEA |
|---|---|---|---|---|---|
| Corrected model | 1748.51 | 1110 | 0.001 | 0.88 | 0.04 |

Bates (1977) found that negative psychological represen-tation from self (but not others) predispose individuals for depression disorder. While close bonds with parents has direct effect on depression, some of other studies found relationship between attachment styles and emotion regu-lation difficulties in adulthood (Carrere & Bowie, 2012; Roque & Verıssimo, 2011). Besides, Millgram, Joormann, Huppert and Tamir (2015) described people who suffer from depression with more probabilities in using dysfunc-tional emotion regulation strategies, which result in more sadness for them. Furthermore, Rahbarian, Mohammadi, Abasi, Meysamie and Nejatisafa (2016) reported high de-gree of blame schema (as one of dysfunctional emotion regulation schemas) in patients with major depression dis-order in comparison with non-clinical sample.

In line with previous research about the effect of the quality of attachment styles on depression disorder, the present study found that three types of attachment styles (secure, non-secure avoidance, and non-secure ambiva-lence) have direct and indirect effects on depression. Thus, quality of attachment style can directly prevent an individual to incline toward depression and even with effect on other psychological processes like emotion recognition, emotion regulation and emotional perspec-tive taking (that were examined in this study) indirectly reduce the probability of depression.

According to attachment literature, good quality in close relation styles is associated with more physical and psychological connection of caregiver-child. As a result of such relationship, caregiver would be in balance with the child's emotional state and positively respond to his or her needs. In this regard, the positive self-impression would be constructed for the child. Obtaining a strong positive belief system about "self" acts like an immune system and prevents emotional disturbances.

Similarly, Brown and Harris (1978) indicated that loss of mother's care in childhood, stressful life or negative experience in early life are risk factors of developing depression in women. In other words, weak intimacy in childhood results in low self-esteem, which could be an important factor for developing depression in adulthood (Brown, Bifulco, veiel & Andrews, 1990). Since, ado-lescent girls are in an acute and stressful period of their

lives (identification crisis for example), having a low and negative belief about themselves would increase the probability of depression symptoms.

On the other hand, Bowlby's theory states that in se-cure base, child develops an internal working model -a representation of the self, attachment figures and rela-tionships in general- which guides later interactions with people. Thus, the internal working model is a strong system that decreases risk of depression and other kinds of turbulence like emotional dysfunctions. Good quality of attachment could be a reliable index of child's ability in emotional condition. Secure child experiences differ-ent kinds of simple and complex emotions in a manner without any negative consequences like fear of observ-ing such situation.

Obviously, the most fundamental ability in emotional situation is emotion recognition; in particular negative emotion recognition (upset, sadness, disgust, fear). Dis-tinguishing negative emotions with accuracy would be the result of enough information and experience in a se-cure base and emotional situation. While naming emo-tions naturally is very important in emotion recognition and also indicates a basic level of emotion regulation. Berking and Shwarz (2014) reported that most basic skills in emotion regulation are awareness, clarification and putting name on emotions.

Kopp (1989) indicated that the development of emotion regulation skills is primarily dependent upon caregiver intervention for young infants. There is emerging evi-dence that problems in emotion regulation may be stable characteristics of depression vulnerability. Studies in the same field reveal that recovered-depressed individuals report significantly more emotion regulation difficulties (Ehring et al., 2008), or emotion regulation dysfunc-tion is a risk factor for the development of depression (Gross & Mun˜oz, 1995; Kring & Werner, 2004; Rude & McCarthy, 2003). Accordingly, training in the field of emotion regulation result in lower degree of depression disorder (Gholami & Bashlideh, 2015).

In the present study, consistent with previous studies, the significant mediating role of emotion regulation in the effect of attachment on depression provides proves

that attachment styles extensively influence emotion regulation and this variable directly affects depression vulnerability. Dodge and Garber (1991) concluded that enhancing cognitive ability and language use affect development of emotion regulation. Further studies needed in this area that much basic cognitive process like emotional perspective taking and emotion recognition would result in the extension of emotion regulation ability. Also emotional perspective taking would improve when individuals have emotional experience. However, much exposure to highly emotional situations reduces the ability to predict others' feelings and behaviors (Van Boven & Lovenshtain, 2005). The significant mediating role of emotional perspective taking in this equation demonstrated that non-secure attachment styles may impose too much negative emotional situations to children so they become much desensitized; thus, such affective insentience depression symptoms increase.

Taken together, attachment styles have direct effects on improving or dysfunction of emotional abilities in adolescent girls; also have direct effects on depression symptoms. Emotional abilities which were examined in the present study were facial emotion recognition, emotional perspective taking, and emotion regulation, which all have mediating role in the structural equation model. With regard to quite well fit model indices, it could be concluded that model of attachment styles, emotional abilities and depression fits appropriately.

Like every other studies, this study faced various limitations such as studying on just female population and high-school age group, so there are some limitations on generalization of the results to male population and other age groups. Because of the importance of this study, it is strongly recommended that the aforementioned model be examined in male population and adult ages. Also, applying more accurate measures such as interview instead of questionnaire is in priority. Psychologists and psychotherapists could use the results of this study in their clinical endeavors. Furthermore, school authorities could educate their students along with the cooperation of their families to improve their attachment relationship and emotional competence.

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## Conflict of Interest

The authors declared no conflict of interests.

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