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THE RELATIONSHIP BETWEEN DEPRESSION AND EARLY MALADAPTIVE SCHEMAS, OBSESSIVE RUMINATION AND COGNITIVE EMOTION REGULATION

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ABSTRACT

The present study was carried out to survey the relationship between depression and early maladaptive schemas, obsessive rumination and cognitive emotion regulation in the students of Islamic Azad University of Qazvin. The research method was non-experimental correlational. In order to measure the variables, there were used Young Schema Questionnaire, Depression Inventory (BDI), Yousefi's Obsessive rumination and Cognitive Emotion Regulation (CEPRQ-P). Statistical populations of the research included all male and female students of Islamic Azad University of Qazvin in 91-92 academic years. Stratified random sampling is utilized to select the sample. Accordingly, to determine the size of the sample population, there was observed the share of their presence in statistical population; population number (Undergraduate engineering students) was 2008 people out of which 322 people (112 males and 210 females) were selected by stratified random sampling through Morgan table. Data analysis was done by Pearson correlation and Multiple Linear Regression via SPSS 18 software. There is relationship between depression and early maladaptive schemas, obsessive rumination and cognitive emotion regulation. There is relationship between depression and early maladaptive schemas (Disconnection & Rejection, Impaired Autonomy & Performance, Impaired Limits, Other-Directedness, over vigilance & Inhibition) at 0/01. There is also relationship between depression and obsessive rumination and cognitive emotion regulation.

Keywords: *Early Maladaptive Schemas, Obsessive Rumination, Cognitive Regulation Strategies, Excitement, Depression*

INTRODUCTION

Depression is the most common mental disorder which is recently on the rise. Depression is called psychiatry flu in psychology due to the abundance out spread among psychiatric clients (Seligman and Rounzahan, 1998; quoted in Seyyed-mohammadi, 2007). Depression affects body, mood and behavior of the person and appears with symptoms such as persistent feelings of sadness, feelings of anger, feelings of helpless or hopeless, loss of interest in activities previously enjoyed, fatigue, cognitive problems and suicide attempts or thoughts. In mood disorders, the severity, duration and combination of the symptoms are varied. On the other hand, depression affects productivity, academic performance and communication of the patient with other people and stands at the top causes of suicide (Kessler *et al.*, 2005). Patients with major depression, besides depressed mood, suffer from numerous cognitive problems probably related to frontal lobe dysfunction. Despite the improvements in depression, these problems remain and cause poor performance of the patients (Baune *et al.*, 2010; Gruber *et al.*, 2007). Moreover, evidence suggests that cognitive performance is decreased at each relapse in patients with recurrent depression (Stordal, 2007). Universal cognitive statistics in different countries is indicative of the prevalence of various depressions in different societies. Studies show that the prevalence of clinical depression in Iran is more than the most other countries and that, women (30/5 percent) are more likely to be inflicted than men (16/7 percent) (Kaviani *et al.*, 2002).

Different factors are involved in the etiology of this disorder. Optimism is not enough to control emotions in case a person is faced with an emotional situation. Rather, the best cognitive function is needed in these situations (Rezvan *et al.*, 2006). In principle, emotion regulation demands an optimal interaction of emotion and cognition to deal with negative situations (Ochsner and Gross, 2005). This is because, we all seek to interpret what we encounter and cognitive interpretations determine our reactions.

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In addition, changes in each of the different parts of the cognitive system such as memory, attention, and consciousness cause changes in mood. Therefore, the role of cognitive emotion regulation cannot be ignored in adaptation to stressful life events (Garnefsky and Kraaij, 2006). In the new approaches, emotional disorders are thought to be caused by the deficits in cognitive controls. That is to say, it is the outcome of inability to control negative emotions caused by negative thoughts and beliefs as well as the inefficient coping strategies (Vels, 2007). Therefore, type of emotion regulation strategies can be indicative of depression.

Cognitive emotion regulation strategies enable individuals to regulate negative emotions and impulses. This regulation has direct relationship with the development, progression or inception of mental disorders (Kraaij *et al.*, 2008). Thus, a person adopts his cognitive strategy to encounter complicate situation caused by the incorrect cognitive evaluation of the situation due to the lack of information, misperception and irrational and false beliefs. In this view, people are assisted rebuilding their thought pattern through cognitive restructuring (Garnefsky *et al.*, 2006). Therefore, the early maladaptive schemas can be one of these patterns. Schemas are formed early in life and affect the person throughout the life (Young *et al.*, 1999). But, early maladaptive schemas are beliefs which people have about themselves, others and the environment. They usually grew out of the dissatisfaction of basic needs especially emotional needs of the childhood (Zhang and He, 2010). In fact, early maladaptive schemas are perpetual and persistent throughout the life and builds cognitive structure bases of the person. The schemas help the person to organize his experience on the world around and process the information received (Maltby and Day, 2004; Thimm, 2010). It is said that schemas have relationship with life satisfaction because they are used as a framework for data processing and that; they determine people's emotional reactions to life situations and interpersonal relationships (Papalia, 2003). Researchers believe that early maladaptive schemas act as a filter to prove or confirm the experiences of childhood and leads to clinical symptoms such as anxiety, depression and personality disorders, loneliness due to destructive interpersonal relationships, alcohol and drug abuse, bulimia and ulcers (Greenhouse *et al.*, 2003; Seligman *et al.*, 2007). Consequently, these schemas have an inverse relation with the degree of cognition regulation strategies and, ultimately, with the emotions (Lumley and Harkness, 2007). In the study of the relationship between maladaptive schemas and anxiety and depression symptoms in adolescents, the relationship was significant. In the study, researchers predicted that depression symptoms are significant in two schemes of social isolation / alienation and self- sacrifice. Haris and Creten (2002) in their study on the relationship between parenting styles, early dysfunctional schemas and depression symptoms in young adults, concluded that young schemas play an intermediary role between perceived parenting styles and depression symptoms. In the meantime, the four schemas accounting for the greatest variance included defectiveness / shame, insufficient self-control, vulnerability and dependence / incompetence. Marmon *et al.*, (2004) achieved positive results in their study of the relationship between early maladaptive schemas and the feeling of displeasure. Ruminative response can be defined as repetitive thoughts and behaviors that turn depressed person's attention on depression symptoms, causes and consequences; For example focus on the feelings of arousal (I feel I don't like to do something), focus on the cause of depression (What's wrong with me that I feel so) and worry on the consequences of the symptoms (When I feel that I can do my work). The theory emphasizes that ruminative response runs contrary to effective and structured problem solving acts i.e. impedes effective behaviors which may help treat depression (Nolen *et al.*, 1993). The studies based on psychological models of depression, single out obsessive rumination as the risk factor of depression (Lo *et al.*, 2008; Roelofs *et al.*, 2008). Hyde *et al.*, (2008) remarks obsessive rumination as cognitive components of depression. Donaldson *et al.*, (2007) stipulates that depression is accompanied by attentional biases to negative information in self-report measures. These negative biases are stronger in ruminative patients.

Regarding what is said, in the study we sought to answer the question that: is there relationship between depression and early maladaptive schemas, obsessive rumination and cognitive emotion regulation?

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MATERIALS AND METHODS

Method

The study is a correlation research. The researcher investigates early maladaptive schemas, obsessive rumination, and cognitive emotion regulation and depression variables through a group of subjects without any manipulation or control. Statistical populations of the research included all male and female engineering students of Islamic Azad University of Qazvin in 91-92 academic years. Research sample is shown in table 1 as follow:

Table1: View of a sample population of the students according to gender

Gender	Male	Female	Total
Student	112	210	322

Table1 shows that sample population are 322 people which included 112 boys and 210 girls who were selected based on their share of presence in statistical population. Morgan's formula was used to determine the sample size of the population. Morgan table for sampling is used when one has no idea of population variance, no knowledge of variable success or failure and when statistical formula can't be used to estimate the sample size.

Instruments

The following questionnaires were used in the research:

Table 2: Scoring table

	Subscale	Item no.	Item quantity	The highest score	Cut score
The 16 scales	Emotional deprivation	1-9	9	54	27
	Abandonment	10-27	18	108	54
	Mistrust and abuse	28-43	16	96	48
	Social isolation	44-54	11	66	33
	Defectiveness	55-68	14	84	42
	Social undesirability	69-78	10	60	30
	Failure	79-87	9	54	27
	Dependence/incompetence	88-102	15	90	45
	Vulnerability to harm	103-116	14	84	42
	Enmeshment	117-127	11	66	33
	Subjugation	128-137	10	60	30
	Self-sacrifice	138-154	17	102	51
	Emotional inhibition	155-163	9	54	27
	Unrelenting standards	164-179	16	96	48
	Entitlement	180-190	11	66	33
	Insufficient self-control	191-205	15	90	45

A) Young's Early Maladaptive Schema Questionnaire

The questionnaire was developed by Young (1999) based on clinical observations to identify sixteen early maladaptive schemas. The first version of the questionnaire was translated into Persian by Sahebi and Hamidpour (2005). The questionnaire contains 205 questions each of which is answered as 6 options rating from completely false (1) to completely untrue (6). The instrument signifies 16 early schemas in 5 fields of Disconnection & Rejection, Impaired Autonomy & Performance, Impaired Limits, Other-Directedness, Overvigilance & Inhibition. The questionnaire is scored by awarding points from 1 to 6 as follow:

- 1 = Completely untrue
- 2 = Mostly untrue
- 3 = Slightly more true than untrue

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- 4 = Moderately true
- 5 = Mostly true of me
- 6 = Completely true

In order to score the questionnaire, the points of the items are added together and the total score is calculated and then compared with the cut-score. If one scores above the cut, it means that the schema exists in the person which necessitates counseling challenge. In order to take advantage of this questionnaire, the scores of the items are added and compared with cut score. When a score is above mean cut-score, it is discussed in the counseling sessions and receives counseling challenge.

The first comprehensive study on the psychometric properties of the questionnaire was done by Smith *et al.*, (1995, cited in Young *et al.*, 1999). The results of the study showed that for each of the early maladaptive schemas, the alpha coefficient was obtained at 83/0 (for Enmeshment) to 0/93 (for Defectiveness). Test-retest coefficients in nonclinical populations have been reported between 0/50 and 0/80. Furthermore, by psychological measures the questionnaire showed psychological vulnerability to depression, personality disorders and convergent and discriminant validity. Higher scores in the questionnaire are indicative of more maladaptive schemas while lower scores mean adaptive schemas. Cronbach's alpha obtained at 0/59 in this study.

B) Cognition Emotion Regulation Questionnaire

Cognition Emotion Regulation Questionnaire (CERQ) was developed by Garnefski *et al.*, (2002) in Netherlands. It has two versions: English and Dutch. Cognitive emotion regulation questionnaire is a multidimensional questionnaire constructed to investigate the cognitive processes people tend to use after experiencing negative life events. Unlike other coping questionnaires, which don't make a clear distinction between the ideas of the individual and his actual actions, this questionnaire evaluates a person's thoughts after exposure to experienced negative or traumatic events. The CERQ is a self-reporting 36-item questionnaire. It is very easy to implement the questionnaire. It can be used for persons aged 12 years and above (both normal and clinical populations). CERQ has a strong theoretical and empirical basis and consists of nine subscales. These subscales evaluate nine cognitive strategies as Self-blame, Acceptance, Obsessive rumination, Positive refocusing, Refocus on planning, Positive reappraisal, Putting into perspective, Catastrophizing and Blaming others. Scores range from 1 (almost never) to 5 (almost always). Each subscale consists of four items. The total score for each subscale are achieved by summing the scores of the items. Thus, scores' range for each subscale will be from 4 to 20. High scores on each subscale indicate greater use of the strategy in the face of stressful and negative events (Garnefski *et al.*, 2002). Reliability and validity of this scale have been examined and its factor structure has been confirmed in different cultures such as Iran (Hassani, 2011), French (German *et al.*, 2006), China (Zhou *et al.*, 2008) and Turkey (Chakmak and Chevik, 2010).

Persian version of the cognitive emotion regulation questionnaire (CEPRQ-P) has been standardized by the Hasani in Iranian culture. In the study, the reliability of the scale based on internal consistency (Cronbach's alpha ranging from 0/76 to 0/92), the validity of the questionnaire through principal component analysis using the rotation varimax, the correlations between the subscales (ranging between 0/32 and 0/67) and validity have been reported as a desirable criteria (Hasani, 2011). In the study, Cronbach's alpha was obtained at 0/74, which is indicative of the authenticity of the questionnaire.

C) Obsessive Rumination Questionnaire

This questionnaire was developed by Yusefi (2005). The questionnaire includes 39 multiple-choice questions each of which is graded from 0 to 3. These points are added and the score of the individual is the result. In order to evaluate the reliability, validity and standardization of the questionnaire, Yusefi randomly selected 2011 students of the University of Esfahan and implemented the Inventory of Depressive Obsessive Rumination. Concurrent validity of the test was measured through Oxford Happiness and Beck Depression Inventory. Construct validity through factor analysis was conducted using varimax. Discriminant validity was measured by internal consistency of the tests in depressed group (clinical) and in nonclinical group. Internal consistency was calculated using Cronbach's alpha and the reliability was obtained by test-retest coefficients. Concurrent validity coefficients was achieved through

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Beck Depression Inventory ($r=0/51$) and the Oxford Happiness ($r=0/53$) –both of them were statically significant. The results showed that the questionnaire has good internal consistency with Cronbach's alpha at ($0/92$). Cronbach's alpha obtained in this study is 0.81, which is indicative of the validation of the questionnaire.

D) Beck Depression Inventory

Among the tests and questionnaires developed to measure depression, Depression Inventory (BDI) has been selected as the most appropriate measure to reflect the moods of depression. The questionnaire includes 13 items which measures physical, behavior, and cognitive symptoms of depression. Each item contains 4 choices graded from 0 to 3 and reflects the intensity or severity of depression. The score of the questionnaire can be zero at least and 39 at most. Compared with that of Hamilton (1960), Beck Depression Inventory has the advantage of not depending on the skill or bias of the subject. Rather, it deals more with the measurement of the psychological characteristics of depression than physical and psychological distress.

Their correlation with each other is $0/75$. This test has been studied by many people over the years and has been acknowledged as the best test to determine depression (Beck *et al.*, 1987, 1961; Watiken, 1970; Schwab, 1967; Metkaf and Goldman, 1961; Vahabzadeh 1973; Parto, 1974; as quoted in Fathi, 1995). The study by Vahabzadeh (1973) on the diagnostic value of the test in discriminating depressed patients and healthy individuals in Iran indicated that it has diagnostic value and can discriminate depressed patients and normal individuals. The short form of this scale was standardized by Dadestan and Mansur (1990) in Iran. Beck depression inventory-short form was used by various researchers such as Noorbala and Sadel (1994). Gol-rezayi (1996) reported its alpha at $0/87$. Cronbach's alpha obtained in this study is $0/89$, which is indicative of the validation of the questionnaire.

RESULTS AND DISCUSSION

Findings

In this section, descriptive statistics and inferential statistics were used to analyze data. To survey research questions, Pearson correlation and multiple linear regressions were used either in descriptive statistics, the mean and standard deviation, or in inferential segment.

Table 3: Descriptive indicators of the studied variables (n=322)

Variables	Mean	Standard deviation	Median	Mood	Minimum	Maximum
Disconnection & Rejection	168/30	78/58	154	72	60	401
Impaired Autonomy & Performance	113/70	39/81	117	120	39	204
Impaired Limits	49/07	16/52	47	36	26	151
Other-Directedness	91/52	32/14	92	86	38	201
Overvigilance& Inhibition	66/80	25/85	65	80	27	140
Early maladaptive schemas	536/60	115/83	537/50	504	242	842
Obsessive rumination	39/52	23/41	33	21	2	106
Self-blame	8/83	3/92	8	6	1	20
Acceptance	10/07	4/31	10	5	4	31
Rumination	8/58	4	8	4	2	21
Positive refocusing	8/67	3/69	9	4	4	17
Refocus on planning	9/71	3/57	11	11	3	19
Positive reappraisal	9/51	3/27	11	11	4	17
Putting into perspective	8/27	4/49	9	11	1	23
Catastrophizing	8/79	3/58	8/50	4	2	19
Blaming others	8/31	3/68	8	5	1	20
Depression	9/01	7/47	7	2	0	32

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Table 3 shows the mean and standard deviation of the variables of the study as well as its subscales. The research questions were investigated using Pearson correlation and multivariate regression, the results of which can be seen in tables 4, 5 and 6.

Table 4: Correlation matrixes between dimensions of early maladaptive schemas and depression

Variable	Disconnection & Rejection	Autonomy	Impaired Limits	Other-Directedness	Overvigilance	Maladaptive schemas	Depression
Disconnection & Rejection	1						
Autonomy	0/122*	1					
Impaired Limits	-0/017	0/107	1				
Other-Directedness	0/202*	0/186**	0/096	1			
Overvigilance	0/073	0/055	0/059	0/122*	1		
Maladaptive schemas	0/669**	0/385**	0/052	0238**	0340**	1	
Depression	0/207**	0/132**	0/212**	0/127**	0/158**	0/193**	1

*. $P < 0/05$
 **. $P < 0/01$

According to table (4), depression has a significant relationship with the schemas as Disconnection & Rejection ($r=207$), Impaired Autonomy & Performance ($r=132$), Impaired Limits ($r=212$), Other-Directedness ($r=127$), Overvigilance ($r=158$) and Early maladaptive schemas (total) ($r=193$) at ($P < 0/01$).

Table 5: Correlation matrix between obsessive rumination and depression

Variable	Obsessive rumination	Depression
Obsessive rumination	1	
Depression	0/333**	1

** $P < 0/01$

According to table (5), the relationship between depression and obsessive rumination ($r= 0/01$) was significant at ($P < 0/01$).

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Table 6: The matrix of correlations between cognitive emotion strategies of and depression

Variables	Self-blame	Acceptance	Rumination	Positive refocusing	Refocus on planning	Positive reappraisal	Putting into perspective	Catastrophizing	Blaming others	Depression
Self-blaming	1									
Acceptance	0/146**	1								
Rumination	0/169**	0/146**	1							
Positive refocusing	-0/131*	-0/037	-0/073	1						
Refocus on planning	0/009	0/035	0/020	0/048	1					
Positive reappraisal	0/055	0/108	-0/078	0/078	0/105	1				
Putting into perspective	-0/060	-0/059	-0/037	0/023	-0/019	0/082	1			
Catastrophizing	-0/086	-0/026	-0/003	0/021	0/131*	-0/019	0/083	1		
Blaming others	0/075	-0/113*	0/042	-0/057	-0/058	-0/023	-0/060	0/083	1	
Depression	0/392**	-0/233**	0/322**	-0/346**	-0/140	-0/197**	-0/095	0/050	0/219**	1

*. $P < 0/05$

** $. P < 0/01$

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According to table (6), depression has a significant relationship with the cognitive emotion strategies: Self-blaming (r=39), Acceptance (r=-0/23), Rumination (r=0/32), Positive refocusing (r=-0/34), Refocusing on planning (r=0/14), Positive reappraisal (r=-0/19), Putting into perspective (r=-0/09) and Blaming others (r=0/21) at (P < 0/05).

Table 7: The results of the correlation coefficient

Criteria variable	R	R ²	Adjusted R ²	Standard error of estimate
Depression	0/67	0/45	0/42	5/68

Predictor Variables: Early maladaptive schemas, obsessive rumination and cognitive emotion regulation strategies

According to the results of table (7), the correlation between depression and early maladaptive schemas, obsessive rumination and cognitive emotion regulation strategies is 0/67. Therefore, 0/45 of the "depression" variation can be explained by the "early maladaptive schemas, obsessive rumination and emotion regulation strategies".

Table 8: The results of the variance in predicting depression through predictor variables: early maladaptive schemas, obsessive rumination and cognitive emotion regulation strategies

Source variable	changes	Sum of squares	df	Mean square	F	Significance level
Depression	Regression	8115/01	16			
	Remaining	9839/96	305/	507/18	15/72	0/00
	Total	17954/97	321	32/26		

a. Dependent variable

b. Predictor variable: early maladaptive schemas, obsessive rumination and cognitive emotion regulation strategies

Table 9: Regression of depression prediction

Independent variable	B	β	t	Significance level
Fix value	0/814		0/272	0/776
Disconnection & Rejection	0/010	0/110	1/776	0/077
Impaired Autonomy & Performance	0/013	0/067	1/370	0/172
Impaired Limits	0/045	0/099	2/166	0/031
Other-Directedness	0/008	0/036	0/794	0/428
Overvigilance& Inhibition	0/025	0/085	1/753	0/081
Early maladaptive schemas	-0/001	-0/019	0/270	0/787
Obsessive rumination	0/030	0/094	1/919	0/056
Self-blame	0/501	0/263	5/917	0/000
Acceptance	-0/212	-0/122	2/738	0/007
Rumination	0/369	0/198	4/473	0/000
Positive refocusing	-0/509	-0/252	5/697	0/000
Refocus on planning	-0/212	-0/101	2/309	0/022
Positive reappraisal	-0/257	-0/113	2/584	0/010
Putting into perspective	-0/042	-0/025	0/577	0/565
Catastrophizing	0/170	0/081	1/840	0/067
Blaming others	0/261	0/129	2/935	0/004

Dependent variable: Depression

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As can be seen in table (8), F was obtained for predictor variable at 15/72, which indicates, given significance level, that early maladaptive schemas, obsessive rumination and cognitive emotion regulation strategies can be predicting variables of depression ($P < 0/01$). So, the model is significant.

Based on the results of the variance and statistical indicators of multiple linear regression, the schemas as Impaired limits, Cognitive emotion regulation strategies, Self-blame, Acceptance, Rumination, Positive refocusing, Refocus on planning, Positive reappraisal, and Blaming others predict depression by 95 percent.

Discussion and conclusion

Based on the results of the variance and statistical indicators of multiple linear regression, the obtained t value between depression and Impaired limits, Cognitive emotion regulation strategies, Self-blame, Acceptance, Rumination, Positive refocusing, Refocus on planning, Positive reappraisal, and Blaming others schemas is significant. It can be understood, given the t-statistic, that the schemas as Impaired limits, Cognitive emotion regulation strategies, Self-blame, Acceptance, Rumination, Positive refocusing, Refocus on planning, Positive reappraisal, and Blaming others have effects on depression. This finding is consistent with the findings of Moravan *et al.*, (2008), Richards and Gross (2000), Wagner *et al.*, (1993), Gross (1999), Davis and Clark (1998) and Wagner *et al.*, (1987).

According to DSM-IV-TR, depression disorder has symptoms such as depressed mood, loss of interest, sleep or nutrition disorder and loss of confidence. The cognitive approaches are based on the assumption that emotional responses are shaped by negative interpretation of experiences (Cochern and Rabinowitz, 2000). Mood endorses the development of negative thoughts, beliefs and attitudes (Teasdeal *et al.*, 2000). In these approaches, negative mood leads to the development of ruminative thoughts (Dalgish and Power, 1999).

Metacognitive perspective on emotional disorders regards obsessive rumination as the main components for inception and continuance of depression (Conway *et al.*, 2000). Obsessive rumination throws cognitive bases of the depressed patients into disorder. It has relationship with poor psychological maladjustment as well as increase in negative emotions such as anger and stress (Wenzolf and Wehner, 2000). Early maladaptive schemas are the other factors studied in this paper as predictors of depression. Young believes that any of the symptoms of psychopathology is associated with one or more of the early schema (Dilat *et al.*, 2004). There has been suggested by researches that early maladaptive schemas are inefficient mechanisms which directly or indirectly lead to psychological distress (Marmun *et al.*, 2004; Taylor, 2005).

The research conducted on psychopathological symptoms and early maladaptive schemas confirm on the significance of the schemas in the development of the symptoms. In their study, Lamly and Harkens (2007) found a significant relationship between early maladaptive schemas and anxiety and depression symptoms in adolescents. They significantly predicted depression symptoms through two schemes i.e. social isolation / alienation and self-sacrifice. In their study on the relationship between depression symptoms and Perceived Parenting Style and early maladaptive schemas, Haris and Creten (2002) concluded that Young Schemas mediate between perceived parenting styles and depressive symptoms. In the meantime, the four schemes accounting for the greatest variance included: Defectiveness / shame, insufficient self-control, vulnerability and dependence / incompetence. Marmun *et al.*, (2004) achieved positive results in the study on the relationship between early maladaptive schemas and feeling of displeasure.

In their study, Kalvit *et al.*, (2005) found a significant relationship between symptoms of affective disorders (depression, anxiety, and anger) and early maladaptive schemas. Renik and Simmons (2005) in their study of the vulnerability of adolescents to depression concluded that early maladaptive schemas along with poor social skills are important factors in increasing vulnerability to depression in adolescents. In surveying the range of factors associated with depression, such as early traumatic experiences, parent-child interaction patterns, environmental factors and life events, they found that depression has relationship with the causes of failure to develop efficient schemes and social skills. In the study on 140 patients with clinical depression and those who had not been depressed, Halvorson *et al.*, (2009) found

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significant relationship associated with early maladaptive schemas. In regression models of this study, insufficient Obedience /self-control and impaired limits schemas were significant predictors of depression symptoms.

However, a change in each part of the various parts of the cognitive system performance –such as memory, attention, and consciousness, leads to changes in mood. Therefore, the role of cognitive emotion regulation in coping with stressful life events cannot be ignored (Garnefsky and Kraaij, 2006). Furthermore, in the new approaches the causes of emotional disorders are attributed to cognitive control deficits. That is to say, inability to control negative emotions is caused by negative thoughts and beliefs about nervousness and the use of dysfunctional coping strategies (Velz, 2007). Therefore, the way to choose the type of emotion regulation strategies can be a predictor of depression. Based on the findings of this study, it is suggest that in treatment of depressed patients the cognitive emotion regulation strategies should be changed. Furthermore, the patients' obsessive rumination should be reduced and their early maladaptive schemas should be changed.

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