

## **Identifying Early Maladaptive Schema of Patients with Major Depressive Disorder (MDD)**

*Received: 11 November, 2018*

*Accepted: 2 September, 2018*

*Mosaieb Yarmohammadi Vasel*<sup>1</sup>

*Yasaman Savari*<sup>2\*</sup>

*Mohammad Rasekh Mahand*<sup>3</sup>

### **Abstract**

Cognitive models of depression propose that negative schemas and Early Maladaptive Schema contribute to depressive symptoms. The purpose of this study is to identify the early maladaptive Schema of patients with depression disorder. The method of study is descriptive. Research statistics involves all patients with depression disorder who have come to the counseling centers of Tehran and Hamadan. The method of sample choosing is stratified sampling. This study was conducted among 120 patients with depression disorder. Instruments in this study were included Beck Depression Inventory (BDI) and Short Form of Young Schema Questionnaire (YSQ). The analysis of the results showed high correlation between early maladaptive schema and symptoms of depression disorder ( $P < 0.05$ ). Regression analysis showed that early maladaptive schema of social isolation/alienation, enmeshment/undeveloped self and emotional inhibition were independent predictors of depression disorder. The results of the present study indicate that identifying schema of depression in patients can help them understand the predisposing factors of their problem.

**Keywords:** Depression, Early maladaptive schema, Schema therapy, Negative schemas, Major Depressive Disorder (MDD)

---

1. Associate Professor, Department of Psychology, Faculty of Economic and Social Science, Bu-Ali Sina University, Hamadan, Iran, email: yarmohamadivasel@yahoo.com

2. \*M.A in Psychology, Department of Psychology, Faculty of Economic and Social Science, Bu-Ali Sina University, Hamadan, Iran, email: yas\_savari@yahoo.com

3. Professor, Department of Linguistics, Faculty of Literature, Bu-Ali Sina University, Hamadan, Iran

## **Introduction**

Depression is the leading cause of disability and is a major contributor to the disease burden worldwide. The global prevalence of depression and depressive symptoms has been increasing in recent decade (Wang, et al., 2017). Major depression is typically a frequent or a chronic disorder (Andrade et al., 2003; Judd, 1997; Kessler et al., 2003; Solomon et al., 2000). Accordingly, more knowledge about vulnerability factors for depression is of major importance in order to prevent and treat depression. From a cognitive perspective, distal vulnerability factors may represent developmental antecedents such as negative self-schemas, whereas proximal vulnerability factors, which are partly based on the distal vulnerability, may reflect cognitive dispositions such as negative automatic thoughts (Ingram & Siegle, 2002). It affects one's thinking, emotion, behavior and body. Among all mental disorders, major depressive disorder is the most prevalent one. Approximately 5% of the population suffers from major depressive disorder (Murphy, Laird, Monson, Sobol, & Leighton, 2000), and about one of five individuals will experience at least one episode of major depression in their life (Kessler et al., 2005). Its prevalence is near to 15 percent in whole life, in women it reaches up to 25 percent and incidence rate of major depression disorder among clinical patients is 10 percent (Kaplan, 2000).

Beck's (1967, 1976) theory was the first theory that explained a cognitive vulnerability– stress interaction. Beck postulated that predisposition to emotional disorders depends on both the maladaptive knowledge structures and the schemata during the childhood. These schemata are internal frameworks and they have been shaped by attitudes, beliefs, and concepts that individuals use when they interpret their past, present, and future experiences. Early maladaptive schemas refer to deeply rooted negative beliefs about oneself, others, and the world that may develop during the earliest years of life and result in erroneous and dysfunctional perceptions, emotions, thoughts, and behaviors. Early maladaptive schemas influence the interpretation of subsequent events as these experiences are viewed through the negative lenses of schemas which serve to selectively incorporate corroborating information and discount conflicting information (Zeigler-Hill, Green, Arnau, Sisemore, & Myers, 2011 ; quoted by Soharabi, 2015).

Based on Beck's (1987) cognitive theory, individuals who have negative cognitive schemas or core beliefs are at an increased risk of depression. When a stressful life event occurs, negative cognitive schemas are activated and affect the way the individual interprets the event, leading to depressive symptoms. Building on this work, Young, Klosko, and Weishaar (2003) proposed that early maladaptive schemata (EMS) play a causal role in the development of several psychopathological conditions, including depression (Halvorson et al., 2009). Considerable evidence supports the cognitive vulnerability–stress theory as applied to the mood and anxiety disorders (Hankin, Abramson, Miller, & Haefel, 2004; Reardon & Williams, 2007).

Beck believes that person's aptitude or vulnerability for depression is developed in her/him in one or several early maladaptive schemas and depressed cognitive constructions. Beck's ideas about early maladaptive schemas or cognitive construction is an approximate stable part of cognitive categorization that categorizes, encodes and assesses input data. He considers simple data changes in cognition by using maladaptive schemas (Ghasemzadeh, 2000). There is much evidence to support the theory of schematic processing in depression. "Negative self-schemas" is effective on depression, person's view of self-anxiety, and violence (Slone, 2001).

In Beck's cognitive theory of depression (1967, 1987) negative self-schemas represent key vulnerability factors to depression. The findings indicate that YSQ scales are as promising vulnerability markers for depression and they underscore a conceptualization of depression as a serious disorder due to its highly recurrent course. They also highlight the necessity to identify and tackle long-term vulnerability factors (Halvorsen et al., 2010). Beck believes that previous negative events encode in memory as special schemas and when facing with similar events and activities, they can influence the interpretation of new information. Depressive schema contains a proposition (basic assumptions) that based on "self- disabling, the outside world is full of problems and the future is hopeless (Ahi, 2005).

In Beck's cognitive theory of depression (1967, 1987) negative self-schemata involved themes of inadequacy, failure, loss, and worthlessness. These factors are hypothesized to contribute vulnerability to depression. These negative self-schemata are often represented as a set of dysfunctional attitudes, such as "If I fail partly,

it is as bad as being a complete failure” or “I am nothing if a person I love doesn’t love me.” When people with such dysfunctional attitudes encounter negative life events, they are hypothesized to develop negative biased perceptions of their self (low self-esteem), world, and future (hopelessness), which then lead to depressive symptoms.

Concept of EMSs provides a valuable extension to the cognitive theory of depressive concepts of automatic thoughts and dysfunctional attitudes. The studies based on EMSs to depressive symptoms in depressed patients are relatively sparse. In non-clinically depressed samples it has been shown that the EMSs failure, defectiveness/shame, and self-sacrifice were associated with depressive symptom severity (Calvete et al., 2005).

In line with Young’s account, early maladaptive schemata have been repeatedly demonstrated to be associated with depression. Using the Young Schema Questionnaire, Halvorsen et al (2009) observed higher endorsement of EMS for depressed than for non-depressed participants on twelve of 16 schemata, whereas Shah and Waller (2001) obtained significant differences for all 16 schemata. Cooper, Rose and Turner (2005) found differences of nine EMSs between participants with low versus high BDI (Beck Depression Inventory; Beck & Steer, 1987) scores. In addition, several authors found significant positive correlations between YSQ scores and the BDI (Calvete, Estévez, López de Arroyabe, & Ruiz, 2005; Halford, Bernoth-Doolan, & Eadie, 2002; Specht, Chapman, & Celluci, 2009; Spinhoven, Bockting, Kremers, Schene, & Williams, 2007).

The content of schemas is its most important characteristic. The content of schemas usually shows itself in the form of personal attitudes, tendencies, goals, values and personal images. In Beck’s opinion depressive schemas are usually learned in childhood due to traumatic events. When such a schema formed, it would not be always active in a depressed person, But when a person faces to a similar situation, the schema may be active again (Ghasemzadeh, 2000).

Young (1990) believes that some schemas, particularly those which children are the result of displeasure experiences, may be the major cause of person’s mental disorder. In order to study this hypothesis, Young specified a collection of schemas which then called early maladaptive schemas and suggested the schema-focused approach to change early maladaptive schemas. This approach is a combination of behavioral, cognitive, attachment, gestalt, objective

relations, structural and psychoanalysis elements that emphasizes to find developmental roots of mental disorders and find primary maladaptive schemas (the deepest level of cognition).

Young (1990, 1994) has elaborated on the schema concept to reflect themes of adverse relational experiences in childhood. Young (1990) hypothesized that connectedness, autonomy, worthiness, reasonable expectations and realistic limits are five primary objectives that the child has to fulfill in order to pursue a healthy development. When caregivers make it difficult for the child to achieve one or more of these five objectives, the Early Maladaptive Schemas (EMSs) will develop. Young (1990) originally identified sixteen schemas, which are grouped into five domains reflecting the childhood objectives mentioned above: Disconnection, Impaired Autonomy, Undesirability, Restricted Self-Expression, and Impaired Limits. In this way, Young assumed the EMS domains to represent predisposing factors for the development and maintenance of clinical symptom states, and to explain various types of interpersonal and personality related problems. Young (1994) proposes that interactions during childhood lead to the development of EMSs and that these unconditional EMSs increase vulnerability to numerous forms of psychopathology. When early maladaptive schemas activated, they cause the occurrence of different forms of psychological distress, such as depression, anxiety, substance abuse and conflicts (Nordahal, Hans and Hangum, 2005).

Young (1990) developed a schema-focused model of psychopathology and personality disorder, and an intervention approach that he called schema-focused therapy. He delineated 16 Early Maladaptive Schemas (EMSs), which are measured by his Schema Questionnaire (Young & Brown, 1994). These were described as follows: (1) Abandonment/instability refers to the perceived instability or unreliability of those available significant others to provide practical nurturance and emotional support, and the belief that one will be abandoned by significant others. (2) Mistrust/abuse refers to the expectation that others are sources of pain, humiliation, manipulation or abuse, which includes a perception that others seek to inflict intentional harm. (3) Emotional deprivation refers to the expectation that one's needs for affection, emotional warmth and companionship, understanding and sharing of feelings, or direction and guidance from others, will not be adequately met by significant others. (4) Defectiveness/shame refers to the feeling that one is bad,

inferior and unwanted, or the belief that one would be unlovable if these inherent defects become apparent to others. (5) Social isolation/alienation refers to the feeling that one is isolated from the rest of the social world, different from other people, and not part of any social group. (6) Social undesirability refers to the belief that one is outwardly unattractive to other people. (7) Dependence/incompetence refers to the belief that one is unable to cope adequately with everyday responsibilities without substantial help from others. (8) Enmeshment/ underdeveloped self refers to an excessive emotional involvement with one or more significant others which impedes the process of individuation. (9) Failure to achieve refers to the belief that one will inevitably fail because of being inept, unsuccessful and inadequate relative to one's peers. (10) Vulnerability to harm/illness refers to an exaggerated fear of suffering physical or mental harm due to medical problems or accidental events. (11) Entitlement/self-centeredness refers to the belief that one is superior to others and entitled to special rights and privileges or entitled to special dispensations, and not bound by normative social rules and conventions. This can involve the domination against others and an absence of empathy for others. (12) Insufficient self-control/self-discipline refers to the difficulty or refusal to tolerate frustration of immediate desires, exercising sufficient self-control in order to achieve personal goals, or restraining the excessive expression of one's impulses and emotions. (13) Subjugation refers to the feeling coerced with surrendering control over one's life to others, and suppression of one's preferences, desires and decision-making or inhibition of emotional expression, especially anger motivated by the desire to avoid retaliation or abandonment. (14) Self-sacrifice refers to an excessive need to voluntarily meet the needs of others at the expense of one's own needs. (15) Unrelenting standards refers to the belief that one must meet very high internalized standards of behavior and performance, usually to avoid criticism. (16) Emotional inhibition refers to the excessive inhibition of spontaneous action, feeling or communication to ensure a sense of security and predictability, to avoid making mistakes or disapproval by others, or to avoid losing control of one's impulses; especially anger and aggression.

Early maladaptive schemas are the most stable and permanent clinical problems that a therapist face, especially in patients with chronic or recurrent depression who are resistant to change and

reform. An important issue in the treatment of this disorder is patient's resistance and lack of response to therapeutic techniques. In summary, the existence of early maladaptive schemas lead to significant problems in treatment.

When studying the relationship between EMSs and depressive symptoms in depressed patients, it is also important to determine whether EMSs remain stable in the context of change in depressive symptoms (i.e., during treatment). A fundamental assumption in schema-theory is that EMSs, like constructs that are resistant to change, are stable trait (Young et al. 2003).

Wang et al. (2010) found moderate stability for most EMSs in depressed patients after a 9-year follow-up. This study suggested that EMSs exhibit long term stability in depressed patients. In Young et al.'s theory (2003) milder forms of its underlying EMSs of Insufficient Self-Control reflects discomfort avoidance of conflict and responsibility, and Entitlement/Grandiosity reflects overcompensation for the EMSs of Emotional Deprivation (part of the disconnection domain). Accordingly, the finding indicates that such schema content might be part of vulnerability for depression.

Specific maladaptive schemas (failure, emotional deprivation, abandonment/instability) were related to depressive symptom severity. Moreover, when controlling the pre-treatment depression severity, the schema domain including impaired autonomy & performance at pre-treatment are related positively to depression levels at the 16-week follow-up assessment, whereas the schema domain over vigilance and inhibition at pre-treatment related negatively to depression levels at the follow-up assessment. Finally, all EMSs demonstrated good relative stability over the course of treatment (Renner et.al, 2012).

Rude et al (2001) showed that negative schemas of self, world and future is effective in vulnerable patients with depression disorder. John and Jonathan (2005) believe that negative schema of self, world, and future is a predisposing factor for the emergence of depression in women. Another study found that defectiveness/ shame, insufficient self-control, vulnerability, and incompetence/inferiority EMSs were related to depressive symptom severity in undergraduate students (Harris and Curtin, 2002). In another clinical sample with mainly depressive symptoms, it has been shown that EMSs abandonment/instability, defectiveness/shame, failure, subjugation, and vulnerability to harm were related to depression severity (Petrocelli et al. 2001).

In a mixed clinical sample with mainly depressed patients it was found that the total score on the Schema Questionnaire was related to depressive symptom severity, suggesting that EMSs explain variance in depressive symptom severity beyond other trait-like constructs that are known to be related to depressive symptoms, like neuroticism (Thimm, 2010). The findings show that schema therapy plays a role in improving the symptoms of recurrent depression disorder and early maladaptive schema during the treatment. Yarmohammadi et al (2013) found that schema therapy was effective in treating recurrent depression disorder and by identifying depressive schemas in depressed patients, they can be treated and reformed with interventions focused on the schema. Also, Research findings have shown that in comparison of the efficacy of schema therapy cognitive and emotional techniques on reduce early maladaptive schemas of depressed persons, improvement percent through teaching of schema therapy cognitive techniques was more and efficacy continues 1.5 month after the intervention (Darabi, Borjali, Azami, 2015). Finally, another study found that in depressed outpatients the EMSs defectiveness/shame, self-sacrifice, and insufficient self-control were related to depressive symptom Severity (Shah and Waller, 2000).

If emotional disorders such as anxiety and depression are, indeed, influenced by cognitive factors, it is important to understand the ways that these factors may contribute to cognitive vulnerability. Some individuals are clearly more susceptible than others to developing emotional disorders, and to experiencing chronic problems or recurrences. Then, what makes them susceptible? This is, in essence, a question about cognitive vulnerability, and one of the most vibrant research efforts in psychopathology is now devoted to exploring it (Lauren & John, 2006).

Therefore, Cognitive models of depression propose that negative and early maladaptive schemata contribute to depressive symptoms. The purpose of this study is to identify the early maladaptive Schema of patients with depression disorder, So that we can identify Schema of depressive patients to help them understand the predisposing factors of their problem.

## **Method**

The method of study was descriptive. Research population involves all patients with depression disorder who have come to the counseling centers of Tehran and Hamadan. Sample choosing is stratified sampling. This study conducted among 120 patients with depression disorder (35 males, 85 females). The mean age of the sample was 30.32 years (SD = 18.46) and the individual's age ranged from 17 to 59 years.

After receiving approval from Counseling centers, the questionnaires were conducted in two stages, at the first stage Participants were diagnosed as patients with depression disorder by using The Structured Clinical Interview for DSM-IV, Axis I disorders (SCID-CV). The SCID interview was performed by three interviewers who had been extensively trained by a highly qualified supervisor in their administration. Based on the information given in the clinical interview, the participants were having a depressive episode during the past 2 years. At the second stage participants completed The Short Form of Young Schema Questionnaire (YSQ-SF) and The Beck Depression Inventory–First Edition (BDI-I; Beck et al. 1979). The questionnaires were administered by team members who gave instructions to the patients on how to complete them. To link data, participants were asked to use a code only known by the participants, thereby precluding anonymity.

### **Measurements Tools**

The instruments applied in this study were Beck Depression Inventory (BDI-I), Short Form of Young Schema Questionnaire (YSQ-SF), the Structured Clinical Interview for DSM-IV and Axis I disorders (SCID-CV).

1- The Beck Depression Inventory–First Edition (BDI-I; Beck et al. 1979) is 21-item self-report inventories designed to assess the presence and severity of depressive symptoms. Both are rated on a four point Likert-type scale ranging from 0 to 3, based on severity of each item. Beck and Steer (1987) classified BDI-I scores as follows: 0–9 normal range; 10–18 mild–moderate; 19–29 moderate– severe; and 30–63 severe. The BDI has excellent validity and reliability in the study of adolescent depression (Krefetz, Steer, Gulab, & Beck, 2002).

2- The Short Form of Young Schema Questionnaire (YSQ-SF) is a 75-item self-report inventory designed to measure 15 EMS (Young, 1998): emotional deprivation, abandonment, mistrust/abuse, social isolation, defectiveness, incompetence, dependency, vulnerability to harm, enmeshment, subjugation of needs, self-sacrifice, emotional inhibition, unrelenting standards, entitlement, and insufficient self-control. Each item is rated using a 6-point scale (1 = completely untrue of me; 2 = mostly untrue of me; 3 = slightly more true than untrue; 4 = moderately true of me; 5 = mostly true of me; 6 = describes me perfectly). Higher scores indicate a greater presence of the maladaptive schema for the respondent. High overall scores indicate a high level of maladaptive schemas, and scores in a given domain indicate high levels of maladaptive schemas in that particular domain. In terms of individual schema endorsement, a cut-off score was applied. Young (1998) suggests that a cut-off of 2 and above may be clinically relevant for the short form of the questionnaire. For the present study, a more stringent cut-off score of 3, indicates that the person rated the item at least as 'more true than untrue' of themselves.

The first psychometric evaluation of the YSQ-SF (in undergraduate and adult samples) demonstrated adequate test-retest reliability, (coefficients ranging from .50 to .82) and internal consistency (alpha coefficients ranging from .83 to .96) (Schmidt et al. 1995). Calvete et al. (2005) validated the factor structure and predictive value of the Spanish version of the YSQ-SF.

In this study, Cronbach's alpha coefficients were .83 (abandonment), .83 (emotional deprivation), .72 (defectiveness), .59 (dependence), .72 (vulnerability to harm), and .84 (failure). In the present study, Cronbach's alpha coefficients of YSQ-SF were .94.

3- Participants were diagnosed based on the Diagnostic and Statistical Manual of Mental Disorders and Text Revision (DSM-IV-TR; APA, 2000), using The Structured Clinical Interview for DSM-IV, Axis I disorders (SCID-CV) (First et al. 1997).

## **Results**

For statistical analysis Pearson's bivariate correlation coefficient was used to investigate the relationship between scores on EMS and depressive symptoms. Regression analysis was used for multivariate analysis. A P-value less than 0.05 was considered significant. All the analyses were done with SPSS 16. Analysis of the results showed high

correlation between early maladaptive schema and symptoms of depression disorder ( $P < 0.05$ ). We found that all of EMSs, specifically the unrelenting standards/ hyper criticalness, abandonment/ instability, social isolation/ alienation, emotional deprivation and Emotional Inhibition EMSs were positively related to depressive symptom severity ( $P < 0.05$ ). Moreover, data showed that men had early maladaptive Schemas of Unrelenting Standards/ Hyper criticalness 9 (45%), Social Isolation/ Alienation 9 (45%), Emotional Inhibition 9 (45%), Abandonment/ Instability 7 (35%), Dependence/ Incompetence 7 (35%), and women had early maladaptive Schemas of Unrelenting Standards/ Hyper criticalness 25 (36%), Abandonment/ Instability 23 (33%), Social Isolation/ Alienation 21 (30%), Emotional Deprivation 20 (28%), Vulnerability to harm and Illness 19 (27%).

Table 1. General descriptors and correlations between Early Maladaptive Schema and Symptoms of Depression (N=100)

Maladaptive schemas	Males		Females		Total	Means	SD	R	p value
	N	P	N	P					
Abandonment/instability	7	35	23	33	35	16.15	5.93	0.21	0.018
Mistrust/abuse	3	15	15	22	19	13.85	5.51	0.34	0.001
Defectiveness/shame	6	30	9	13	15	13.96	6.56	0.57	0.001
Social isolation/alienation	9	45	21	30	33	16.24	6.51	0.64	0.001
Failure to achieve	3	15	10	14	13	13.01	6.14	0.56	0.001
Dependence/incompetence	7	35	7	10	14	12.82	6.27	0.49	0.001
Vulnerability to harm	3	15	19	27	23	14.34	6.47	0.42	0.001
undeveloped self	3	15	14	20	18	13.62	6.31	0.39	0.001
Emotional deprivation	4	20	20	28	28	15.84	5.50	0.48	0.001
Entitlement/grandiosity	5	25	14	20	20	16.08	5.73	0.30	0.001
Insufficient self-control	6	30	14	20	21	15.49	6.01	0.48	0.001
Subjugation	5	25	15	22	21	15.99	6.05	0.52	0.001
Self-sacrifice	2	10	17	25	22	16.01	5.13	0.37	0.001
Emotional inhibition	9	45	16	23	27	15.92	6.58	0.55	0.001
Unrelenting standards	9	45	25	36	36	18.57	5.98	0.30	0.001
YSQ	-	-	-	-	-	20.06	14.38	0.59	0.001
BDI	-	-	-	-	-	22.09	11.88	1	0.001

Regression analysis showed that three early maladaptive Schemas account for 46% of the variance of depressive symptom severity. The early maladaptive schemas that predicted depressive symptom include: emotional inhibition ( $t = 3.63$ ,  $df = 119$ ,  $p < .05$ ), social isolation / alienation ( $t = 4.23$ ,  $df = 119$ ,  $p < .01$ ), Enmeshment / Undeveloped self ( $t = 3.01$ ,  $df = 119$ ,  $p < .05$ ). Therefore, early maladaptive schema of Emotional Inhibition, social isolation/

alienation and Enmeshment/Undeveloped Self were independent predictors of depression disorder (Table 2).

Table 2. Simple linear regression analysis of early maladaptive schemas as the predictor of depression disorder

Predictive Variable	B	SE	Beta	T	P
(Constant)	12.306	1.409	-	8.73	0.001
Emotional Inhibition	2.278	0.626	0.314	3.63	0.001
Social isolation / Alienation	2.539	0.599	0.360	4.23	0.001
Enmeshment / Undeveloped self	1.911	0.631	0.236	3.01	0.003

Scores for men and women on The Early Maladaptive Schema (EMS) were analyzed with Independent Test Samples. The sample included 35 men and 85 women. Results indicated that men scored significantly higher than women in Defectiveness/shame (male; M=1.75, SD=1.65, female; M=0.01, SD=1.48), Dependence/incompetence (male; M=1.55, SD=1.76, female; M=0.62, SD=1.11) and insufficient self-control subscales (male; M=1.90, SD=1.37, female; M=1.17, SD=1.40). The mean scores in Early Maladaptive Schema for men were significantly higher than women. Therefore, Examination of Independent Test Samples indicated that men and women differed significantly on three of the SQ-SF subscales including Defectiveness/shame, Dependence/incompetence and Insufficient self-control (Table 3).

Table 3. Comparison of The Early Maladaptive Schema Mean between Males and Females using Independent Samples Test

Maladaptive schemas	Males		Females		T	P
	M	SD	M	SD		
Abandonment/instability	1.75	1.68	1.88	1.52	0.334	0.73
Mistrust/abuse	0.95	1.27	1.16	1.46	0.58	0.56
Defectiveness/shame	1.75	1.65	0.01	1.48	2.42	0.017*
Social isolation/alienation	1.80	1.88	1.57	1.65	0.54	0.59
Failure to achieve	1	1.41	0.80	1.39	0.57	0.57
Dependence/incompetence	1.55	1.76	0.62	1.11	2.85	0.006*
Vulnerability to harm	1.05	1.82	1.36	1.61	0.74	0.46
undeveloped self	1.25	1.44	1.28	1.47	0.06	0.94
Emotional deprivation	1.65	1.56	1.57	1.40	0.23	0.81
Entitlement/grandiosity	1.85	1.56	1.52	1.33	0.93	0.35
Insufficient self-control	1.90	1.37	1.17	1.40	2.047	0.04*
Subjugation	1.30	1.26	1.32	1.50	0.05	0.95
Self-sacrifice	1.20	1.24	1.61	1.42	1.59	0.24
Emotional inhibition	1.95	1.79	1.41	1.59	1.31	0.19
Unrelenting standards	2.20	1.64	1.83	1.65	0.89	0.37

## **Discussion and Conclusion**

This study was designed to test the relationship between current EMSs and depressive symptoms. Multiple studies have addressed schema theory in mood and depression disorders. Some have examined EMSs or schema modes in association with symptoms of depression (Welburn et al, 2002; Stopa et al, 2001).

This finding is largely in line with previous findings in case of the relationship between early maladaptive Schemas and depressive symptom severity. (Halvorsen et al, 2009; Calvete et al, 2005; Glaser et al. 2002) it suggests that depressed patients are characterized by a specific set of EMSs. We found that all of EMSs, specifically the EMSs unrelenting standards/ hyper criticalness, abandonment/ instability, social isolation/ alienation, emotional deprivation and Emotional Inhibition were positively related to depressive symptom severity. Moreover, data showed that men had early maladaptive Schemas of unrelenting standards/ hyper criticalness, abandonment/ instability, social isolation/ alienation, Emotional Inhibition and Dependence/ Incompetence, and women had early maladaptive Schemas of unrelenting standards/ hyper criticalness, abandonment/ instability, social isolation/ alienation, emotional deprivation, Vulnerability to harm and Illness. Also Results showed that three early maladaptive Schemas account for 46% of the variance of depressive symptom severity, significant factors were Emotional Inhibition, social isolation/ alienation and Enmeshment/ Undeveloped Self.

The present results are consistent with Young's (1994) model of early maladaptive schema, which suggests that depressive cognitions are preferentially related to depressive symptoms. Various Studies explored the relationship between Mood Disorders and Associated Early Maladaptive Schemas (EMSs), including; Abandonment, Insufficient Self-Control (Welburn et al, 2002), Abandonment Defectiveness/ Shame, Subjugation, Self-Sacrifice (Stopa et al, 2001), Abandonment, Social Isolation (Glaser et al,2002), Defectiveness/ Shame, Insufficient Self-Control, Incompetence, Vulnerability to Harm or Illness (Harris & Curtin, 2002), Dependency, Defectiveness/ Shame (Schmidt et al, 1995), Defectiveness/ Shame, Self-Sacrifice, Failure (Calvete et al, 2005), Emotional Deprivation, Abandonment,

Mistrust/ Abuse, Defectiveness/ Shame, Social Undesirability (Halvorsen et al, 2009).

Welburn et al. (2002) explored the relationship between EMSs and psychiatric symptoms among day-treatment patients with a wide range of disorders and comorbidities. Results showed that EMSs accounted for 52% of the variance of anxiety symptoms, significant factors resulted in Abandonment, Vulnerability to Harm or Illness, Failure, Self-Sacrifice, and Emotional Inhibition. Finally, 13 of the 15 assessed EMSs were significantly correlated with the symptoms of anxiety.

Stopa et al. (2001) also found that 10 of 14 EMSs were significantly correlated with the symptoms of depression, whereas 7 were correlated with the general symptoms of anxiety and 8 with phobic anxiety. Abandonment, Defectiveness/Shame, Subjugation, and Self-Sacrifice factors include 43% of the variance of depression. The Defectiveness/ Shame EMS alone explained 21% of the variance of phobic anxiety symptoms. Another study in a mixed clinical sample assessed the construct validity of the EMSs by evaluating their ability to predict the symptoms of depression and anxiety in multiple regression analyses. Abandonment schema was found to predict significantly depressive symptoms (Glaser, et al. 2002).

Riso et al. (2003) examined the schema domains in chronic depression, compared to patients with non-chronic major depressive disorders and healthy controls. The two depressed groups scored higher than controls on all schema domains, but the scores of those with chronic depression exceeded the scores of patients with non-chronic depression. The chronically depressed group had higher scores than those with non-chronic depression on the Disconnection and Rejection, Impaired Autonomy, and over vigilance. This suggests that chronic depression is associated more strongly with EMSs.

In conclusion, the results of this study show that certain early maladaptive schemas are risk factors for the development of depressive symptoms .consistent with schema theory, the literature suggests that people with depression disorder show high levels of EMSs, some of which appear to reflect characteristics of the specific disorders. Thus, despite how it is often assumed, schema theory is not exclusively the domain of personality disorders; it can be extended to understand depression disorder. Preliminary work also suggests that ST could perhaps be extended for use with depression disorder,

although further research is necessary to strengthen this assertion and identify individuals who stand to improve the most.

*Conflict of Interests:* No conflict of interests was reported from the authors.

## References

- Ahi, H. (2005). Standardization of Young Schema Questionnaire-Short Form. Master's thesis. Faculty of Education and Psychology. Allameh Tabataba'i University, (Persian).
- Beck, A. T. (1967). *Depression: clinical experimental and theoretical aspects*. New York: Harper and Row.
- Beck, A. T., & Steer, R. A. (1987). *Beck depression inventory manual*. New York: The Psychological Corporation Harcourt Brace Jovanovich, Inc.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive Therapy Of depression*. Guilford. New York.
- Calvete, E., Estévez, A., López A. E., & Ruiz, P. (2005). The schema questionnaire-short form: structure and relationship with automatic thoughts and symptoms of affective disorders. *European Journal of Psychological Assessment*, 21, 90–99.
- Cooper, M. J., Rose, K. S., & Turner, H. (2005). Core beliefs and the presence or absence of eating disorder symptoms and depressive symptoms in adolescent girls. *International Journal of Eating Disorders*, 38, 60-64.
- Darabi, A., Borjali, A., Azami, Y. (2015). Comparison of efficacy of schema therapy cognitive and emotional techniques on early maladaptive schemas reduction of depressed persons. *Quarterly Journal of Clinical Psychology Studies*, 5(18), 143-166. (Persian).
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). *The structured clinical interview for DSM-IV, Axis I disorders– clinician version (SCID-CV)*. Washington, DC: American Psychiatric Press.
- Ghasem- Zadeh, H. (2000). *Cognition of Emotion, the Clinical and Social Aspects*. Tehran: Publications Cultures, (Persian).
- Glaser, B. A., Campbell, L. F., Calhoun, G. B., Bates, J. M., & Petrocelli, J. V. (2002). The Early Maladaptive Schema Questionnaire-Short Form: A construct validity study. *Measurement and Evaluation in Counseling and Development*, 35(1), 2–13.
- Halford, W. K., Bernoth-Doolan, S., & Eadie, K. (2002). Schemata as moderators of clinical effectiveness of a comprehensive cognitive behavioural program for patients with depression or anxiety disorders. *Behavior Modification*, 26, 571-593.
- Halvorsen, M., Wang, C. E., Richter, J., Myrland, I., Pedersen, S. K., & Eisemann, M. (2009). Early maladaptive schemas, temperament and

- character traits in clinically depressed and previously depressed subjects. *Clinical Psychology & Psychotherapy*, 16(5), 394–407.
- Halvorsen, M., Wang, C.E., Eisemann, M., & Waterloo, K., (2010). Dysfunctional Attitudes and Early Maladaptive Schemas as Predictors of Depression: A 9-Year Follow-Up Study. *Cogn Ther Res*, 34:368–379.
- Hankin, B. L., Abramson, L. Y., Miller, N., & Haeffel, G. J. (2004). Cognitive vulnerability-stress theories of depression: Examining affective specificity in the prediction of depression versus anxiety in three prospective studies. *Cognitive Therapy and Research*, 28(3), 309–345.
- Harris, A. E. Curtin, L. (2002). Parental perceptions, early maladaptive schemas, and depressive symptoms in young adults. *Cognitive Therapy and Research*, 26, 405–416.
- Heron, J., Evans, J. (2005). Negative Self Schema: depressive in women. *The British journal of Psychiatry*, 186: 302-307.
- Kaplan, H. Sadock, B. & Grebb, J. (1994). *Kaplan and Sadock's Synopsis of Psychiatry: Behavioral Sciences, Clinical Psychiatry* (2th ed). Translated Nosratollah Pourafkary. Tehran: Publications Shahrab, (persian).
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 593-602.
- Krefetz, D. G., Steer, R. A., Gulab, N. A., & Beck, A. T. (2002). Convergent validity of the Beck Depression Inventory-II with the Reynolds Adolescent Depression Scale in psychiatric inpatients. *Journal of Personality Assessment*, 78, 45–460.
- Lauren, B., Alloy, J., & Riskind, H. (2006). *Cognitive vulnerability to emotional disorders*. Lawrence Erlbaum Associates, Inc. Publishers. Mahwah, New Jersey London.
- Murphy, J. M., Laird, N. M., Monson, R. R., Sobol, A. M., & Leighton, A. H. (2000). A 40-year perspective on the prevalence of depression: The Stirling County Study. *Archives of General Psychiatry*, 57, 209-215.
- Nordahal, H. M. & Hangom, I. A.(2005). Early Maladaptive Schema in Patient with or without Personality Disorder). *Clinical Psychology and Psycho Therapy*, 12, 142-149.
- Petrocelli, J. V., Glaser, B. A., Calhoun, G. B., & Campbell, L. F. (2001). Cognitive schemas as mediating variables of the relationship between the self-defeating personality and depression. *Journal of Psychopathology and Behavioral Assessment*, 23, 183–191.

- Reardon, J. M., & Williams, N. L. (2007). The specificity of cognitive vulnerabilities to emotional disorders: Anxiety sensitivity, looming vulnerability and explanatory style. *Journal of Anxiety Disorders*, 21(5), 625–643.
- Renner, F., Lobbestael, L., Peeters, F., Arntz, A., Huibers, M. (2012). Early maladaptive schemas in depressed patients: Stability and relation with depressive symptoms over the course of treatment. *Journal of Affective Disorders*, 136, 581–590.
- Riso, L. P., du Toit, P. L., Blandino, J. A., Penna, S., Dacey, S., & Duin, J. S. (2003). Cognitive aspects of chronic depression. *Journal of Abnormal Psychology*, 112(1), 72–80.
- Rude, S. S., Covich, J., Jarrold, W., Hedlund, S., & Zenter, M. (2001). *Cognitive therapy and Research*, 25(1), 103-116.
- Schmidt, N. B., Joiner, T. E., Young, J. E., & Telch, M. J. (1995). The schema Questionnaire: Investigation of Psychometric Properties and the hierarchical structure of a measure of maladaptive schemas. *Cognitive Therapy and Research*, 19, 295-321.
- Shah, R., Waller, G. (2000). Parental style and vulnerability to depression: the role of core beliefs. *The Journal of Nervous and Mental Disease*, 188, 19–25.
- Slone, L. R. (2001). Self – Schema and their influence on depression, anxiety and hostility in a chronically stressed population, 12, p. 67.
- Sohrabi, F. (2015). The third wave of psychotherapy: Origins, Present status and Perspectives, with special emphasis on Schema therapy. *Quarterly Journal of Clinical Psychology Studies*, 5(18), 1-14. (Persian).
- Specht, M. W., Chapman, A., & Celluci, T. (2009). Schemas and borderline disorder symptoms in incarcerated women. *Journal of Behavior Therapy and Experimental Psychiatry*, 40, 256-264.
- Stopa, L., Thorne, P., Waters, A., & Preston, J. (2001). Are the short and long forms of the Young Schema Questionnaire comparable and how well does each version predict psychopathology scores? *Journal of Cognitive Psychotherapy*, 15(3), 253–272.
- Thimm, J.C. (2010). Personality and early maladaptive schemas: a five-factor model perspective. *Journal of Behavior Therapy and Experimental Psychiatry*, 41, 373–380.
- Waller, G., Meyer, C., & Ohanian, V. (2001). Psychometric properties of the long and short versions of the Young Schema Questionnaire: Core beliefs among bulimic and comparison women. *Cognitive Therapy and Research*, 25, 137-147.
- Wang, J., Wu, X., Lai, W., Long, E., Zhang, X., Li, W., ... Lin, H. (2017). Prevalence of depression and depressive symptoms among outpatients:

- a systematic review and meta-analysis. *BMJ open*, 7(8), e017173. doi:10.1136/bmjopen-2017-017173
- Wegener, I., Alfter, S., Geiser, F., Liedtke, R. and Conrad, R. (2013). Schema Change without Schema Therapy: The Role of Early Maladaptive Schemata for a Successful Treatment of Major Depression, *Washington School of Psychiatry*, 76(1).
- Welburn, K., Coristine, M., Dagg, P., Pontefract, A., Jordan, S. (2002). The schema questionnaire – short form: Factor analysis and relationship between schemas and symptoms. *Cognitive Therapy and research*, 26, 519 -530.
- Yarmohammadi Vassel, M., Borjali, A., Goolzari, M., Delavar, A. (2013). The Effect of Schema Therapy in Patients with Recurrent Depression Disorder: A Single-Case Study. *Journal of Counseling and Psychotherapy Culture*, 3 (12), 21-48. (Persian).
- Young, J. E. (1998). The Young Schema Questionnaire: Short Form. Available in electronic form at: <http://home.sprynet.com/sprynet/schema/ysqs1.htm>.
- Young, J. E. (1994). *Cognitive therapy for personality disorders: A schema-focused approach*. Sarasota: Professional Resource Press.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema Therapy: a practitioner's Guide*. New York: The Guilford press.
- Young, J.E. & Brown, G. (1990). *Young schema questionnaire*. New York: Cognitive Therapy Centre of New York.