Investigate and comparison of early maladaptive schemas in a sample with anxiety disorders with non-clinical samples

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ABSTRACT

Background: The purpose of the current study was to investigate and compare early maladaptive schemas in patients with anxiety disorders with non-clinical subjects.

Materials and methods: From among patients referring to Tehran psychiatric institute and private clinics, 4 groups (each group: 15 patients) with anxiety disorders (such as generalized anxiety disorder, social anxiety, phobias and panic disorder) with the help of psychiatrist and execution Structured Clinical Interviews for DSM-5 Disorders-Clinical Version (SCID-5-CV) were first detected and compared with non-clinical subjects.

In this regard, The Yang non-adaptive Schema Questionnaire-Short Form (YSQ-SF) was implemented on them and the results of comparing each group of anxiety disorders with the non-clinical group were analyzed using the t-test.

Results: The results of the current study showed that people with anxiety disorders compared to non-clinical subjects had a significant difference in terms of early maladaptive schemas, especially in terms of emotional deprivation, social isolation/alienation, defectiveness/shame failure, dependence/incompetence, vulnerability to harm or illness, enmeshment/self-undeveloped, subjugation and emotional inhibition schemas.

Conclusion: People with anxiety disorders had early maladaptive schemas.

Keywords: Early maladaptive schemas; Anxiety disorders; Spontaneous magnetization; Magnetic entropy change; Field dependence

INTRODUCTION

Anxiety disorders are disturbances that are similar to those of anxiety and fear. According to the fifth edition of the Diagnostic and Statistical Manual of psychiatric disorders (DSM-5), anxiety disorders include disturbances such as general anxiety disorder, separation anxiety disorder, social anxiety disorder, specific phobia disorder, panic disorder and agoraphobia disorder. In general, these disorders occur more often in women than in men.

According to Beck's Schema theory in 1976, anxiety is characterized by auto-negative thoughts and distortion in the interpretation of stimuli and events. Negative thoughts or distorted interpretations are thought to stem from the activation of negative beliefs accumulated in long-term memory. According to this theory, emotional disturbances are associated with the activation of dysfunctional cognitive structures. Accordingly, Young et al. argued that Early Maladaptive Schemas (EMSS) included a broad pattern of memories, emotions, cognitive, and emotional feelings about oneself and communication with others, and maladaptive behaviors is a response to such schemas [1]. EMSS is believed to be fixed and deep cognitive structures that organize child experiences and the method of perception and control of environment. However, EMSS have limited application in adulthood and in some circumstances may lead to anxiety, depression or other psychological pathology.

The results of some studies indicate the relationship between early maladaptive schemas and anxiety disorders. For example Cousineau predicted significant relationship between schemas and anxiety. In the study, the original maladaptive schemas subdivide into three categories, theoretically [2]. The first group has schemas that, in their definition, have anxiety. The latter are related to lack of coherence and the third groups of schemes are characterized by communication vacuum and crises. The results of the study by Calvete et al., which were conducted to examine the role of mediating anxiety thoughts in related to early maladaptive schemas and social anxiety in adolescents, also showed that deeper schemas are predictive of superficial thoughts and also these automatic thoughts contribute to the continuity of maladaptive schemas.

In the population of patients with anxiety disorders, limited studies have been conducted on maladaptive schemas. The vacuum of research done in this field can be seen in internal research. In general, among the studies in the field of early maladaptive schemas, the most common researches to be seen in the population of students and with other variables such as metacognition, mental health, life satisfaction and so on. Limited studies, especially among anxiety disorders, have shown a high percentage of early maladaptive schemas [3]. Thus, on the one hand, due to the high prevalence of anxiety disorders among psychological disorders and high percentage of maladaptive schemas among them and on the other hand, due to the importance of examining the type of maladaptive schemas in people with anxiety disorders, the current research seeks to investigate whether the early maladaptive schemas of people with anxiety disorders are different from non-clinical ones.

MATERIALS AND METHODS

In the current research, Tehran psychiatric institute and private clinics were considered as sampling centers. Among patients with anxiety disorders, patients with a psychiatric diagnosis with these anxiety disorders (panic disorder-separation anxiety disorder-social anxiety disorder-phobia disorder-general anxiety disorder) tended to cooperate in this study and selected by target-based sampling and then, were structured clinical referred to the collaborator of the project, who was familiar with the implementation of a interview for DSM-5 (Clinical version) (SCID-5-CV) and not known from the psychiatrist's diagnosis. After the interview, the collaborator requested the subject to complete the Yang non-adaptive schemes questionnaire-short form [4]. According to the average sample of external investigations in this field, in the current research, 15 patients were considered in each group and 70 non-clinical students were selected by available sampling method. To calculate the sample size, the formula for calculating the sample size for comparing two meanings is used:

$$(n=(A+B) \; 2 \times 2 \times SD2/DIFF2)$$

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This formula is used when comparing the mean of the two groups. A: Level of significance level, B: Statistical power, standard deviation of main criterion variable (maladaptive schemas) according to past studies and DIFF: The difference between the two groups that is clinically meaningful.

52 × (11.2) 2 × 22 n=(1.96+0.80)

The included criteria in the current study are: having one of the anxiety disorders based on psychiatric diagnosis and also SCID-5-CV, getting the least education under a diploma and willingness to cooperate in the research [5]. After collecting data about the incompatible cognitive schemas questionnaire from both clinical and non-clinical groups, data analysis using descriptive statistics and T-test is used to compare the two groups. The tools used in the current research were:

Demographic characteristics questionnaire: A personal information questionnaire including gender, age, level of education, marital status, duration of the disease and type of disease, history and frequency of suicide attempts.

Structured Clinical Interview for DSM-5 Disorders-Clinical Version (SCID-5-CV): This tool is a semi-structured clinical and diagnostic interview developed by first et al in 2015 to evaluate clinical disorders and in addition to anxiety disorders, mood and psychiatric disorders, psychosis and drug abuse also include. Using this tool, the level of damage and severity of each disorder is measured.

Yang nonadaptive Schemes Questionnaire Short Form (YSQSF): This questionnaire is designed by Yong and Brown in 1990 and includes 232 items that measure 18 original maladaptive schemas in five different domains [6]. The questionnaire is based on a 6-point Likert scale, and the therapist takes all the items that have scored 5 or 6, the only exception is for item 1 to 5

that examines the roots of the emotional deprivation schema and reverse the scoring. Cronbach's alpha has been reported between 0.79 and 0.93. Also, the correlation between the test-retest was 0.67 to 0.84.

Data analysis method: In this research, descriptive statistical methods were used to describe and analyze the research data, as well as t-test were used to compare the clinical groups with the non-clinical group.

RESULTS

Descriptive results of the present study show that 43 (38.1%) of subjects are male and 70 (61.9%) of subjects are women [7]. Most of them (53.1%) study at undergraduate level and college education (2.7%) shows the lowest among subjects. Also, many subjects (71.7%) studied humanities (such as management, law, psychology, and librarianship), and the study of art (0.9%) was the least common among subjects [8]. In addition, 81 subjects (71.7%) were single and 32 (28.3%) were married. Also, 84.1% of the subjects had no medical disorder and only 15.9% had medical disorder. In addition, 59.3% of the subjects were without mental disorders and 40.7% of them confirmed the symptoms of mental disorders. 10.6% of the subjects had suicidal attempts.

The results of comparing the non-clinical group with any of the anxiety disorders are presented in Tables 1-4. In Table 1, the difference between the mean scores of maladaptive schemas in people with generalized anxiety disorder and non-clinical subjects has been compared [9]. As shown in Table 1, people with general anxiety disorder have a significant difference with non-clinical subjects in many early maladaptive schemas (p<0.01).

Table 1: The difference between the mean scores of maladaptive schemas in people with generalized anxiety disorder and non-clinical subjects.

	Group	Mean	Std. deviation	t	df	Sig
Emotional deprivation	Nonclinical	9.55	5.55	-2.131	83	0.036
	GAD	13.2	7.86			
Abandonment/ Instability	Nonclinical	13.11	6.53	-0.529	83	0.598
	GAD	14.06	5.18			
Mistrust/Abuse	Nonclinical	9.55	3.74	-1.79	83	0.077
	GAD	11.77	6.62			
Social isolation/ Alienation	Nonclinical	8.81	3.99	-3.281	83	0.002
	GAD	13.15	7.02			
Defectiveness/Shame	Nonclinical	10.61	5.39	-1.557	83	0.123
	GAD	13.1	6.58			
Failure	Nonclinical	8.37	4	-4.392	83	0
	GAD	14.83	8.93			
Dependence/ Incompetence	Nonclinical	8.45	4.45	-2.464	83	0.016
	GAD	11.99	7.33			
Vulnerability to harm or illness	Nonclinical	8.81	4.76	-7.811	83	0
	GAD	20.16	6.53			
Enmeshment/ Undeveloped self	Nonclinical	9.47	5.06	-1.316	83	0.192
	GAD	11.37	5.07			
Subjugation	Nonclinical	9.21	5.57	-2.356	83	0.021
	GAD	13.2	7.5			
Self-sacrifice	Nonclinical	15.05	5.69	0.49	83	0.626

	Group	Mean	Std. deviation	t	df	Sig
	GAD	14.26	5.65			
Emotional inhibition	Nonclinical	10.58	5.69	-1.795	83	0.076
	GAD	13.49	5.75			
Unrelenting standards/ hypercriticalness	Nonclinical	14.95	6.013	-3.728	83	0
	GAD	21.39	6.34			
Entitlement/ Grandiosity	Nonclinical	12.39	5.64	-2.174	83	0.033
	GAD	15.86	5.48			
Insufficient self-control/self- discipline	Nonclinical	10.85	5.54	-2.207	83	0.03
	GAD	14.47	6.73			

In Table 2, the difference between the mean score of maladaptive schemas in patients with panic disorder and non-clinical subjects has been compared [10]. As shown in Table 2, people with panic disorder (especially in schemas like: Emotional deprivation, failure, dependence/incompetence, vulnerability to harm or illness) generally have a significant difference with non-clinical subjects (p<0.01).

Table 2: The difference between the mean score of maladaptive schemas in patients with panic disorder and non-clinical subjects.

	Group	Mean	Std. deviation	t	df	Sig
Emotional deprivation	Nonclinical	9.55	5.55	-3.768	79	0
	panic	17	8.97			
Abandonment/ Instability	Nonclinical	13.11	6.53	-0.563	79	0.575
	panic	14.29	6.02			
Mistrust/Abuse	Nonclinical	9.55	3.74	0.165	79	0.87
	panic	9.35	3.61			
Social isolation/ Alienation	Nonclinical	8.81	3.99	-0.82	79	0.414
	panic	9.9	4.84			
Defectiveness/Shame	Nonclinical	10.61	5.39	-0.315	79	0.753
	panic	11.17	5.96			
Failure	Nonclinical	8.37	4	-1.981	79	0.051
	panic	11.09	5.55			
Dependence/ Incompetence	Nonclinical	8.45	4.45	-2.54	79	0.013
	panic	12.54	7.63			
Vulnerability to harm or illness	Nonclinical	8.81	4.76	-4.333	79	0
	panic	16.51	8.97			
Enmeshment/ Undeveloped self	Nonclinical	9.47	5.06	-3.41	79	0.001
	panic	15.36	6.85			
Subjugation	Nonclinical	9.21	5.57	-1.451	79	0.151
	panic	11.9	6.65			
Self-sacrifice	Nonclinical	15.05	5.69	0.123	79	0.902
	panic	14.81	7.93			
Emotional inhibition	Nonclinical	10.58	5.69	0.568	79	0.572
	panic	9.58	3.07			

	Group	Mean	Std. deviation	t	df	Sig
Unrelenting standards/ hypercriticalness	Nonclinical	14.95	6.01	0.823	79	0.413
	panic	13.36	5.62			
Entitlement/ Grandiosity	Nonclinical	12.39	5.64	-0.136	79	0.892
	panic	12.63	5.04			
Insufficient self-control/self- discipline	Nonclinical	10.85	5.54	-0.593	79	0.555
	panic	11.9	4.86			

In Table 3, the difference between the mean scores of maladaptive schemas in people with social anxiety disorder and non-clinical subjects has been compared. As the results of Table 3 show, people with anxiety disorder in many early maladaptive schemas, in particular emotional deprivation, social isolation/alienation, defectiveness/shame, failure, dependence/ incompetence, enmeshment/self-undeveloped, subjugation and emotional inhibition have a significant difference with non-clinical subjects (p<0.01.).

Table 3: The difference between the mean scores of maladaptive schemas in people with social anxiety disorder and non-clinical subjects.

	Group	Mean	Std. deviation	t	df	Sig
Emotional deprivation	Nonclinical	9.55	5.55	-2.912	77	0.005
	SAD	15.55	7.71			
Abandonment/ Instability	Nonclinical	13.11	6.53	-0.449	77	0.655
	SAD	14.22	10.02			
Mistrust/Abuse	Nonclinical	9.55	3.74	-0.711	77	0.479
	SAD	10.55	5.59			
Social isolation/ Alienation	Nonclinical	8.81	3.99	-4.447	77	0
	SAD	16.22	8.67			
Defectiveness/Shame	Nonclinical	10.61	5.39	-2.962	77	0.004
	SAD	16.66	8.35			
Failure	Nonclinical	8.37	4	-5.965	77	0
	SAD	18.77	9.76			
Dependence/ Incompetence	Nonclinical	8.45	4.45	-3.262	77	0.002
	SAD	13.88	6.5			
Vulnerability to harm or illness	Nonclinical	8.81	4.76	-1.147	77	0.255
	SAD	10.88	7.44			
Enmeshment/ Undeveloped self	Nonclinical	9.47	5.06	-2.254	77	0.027
	SAD	13.88	8.55			
Subjugation	Nonclinical	9.21	5.57	-3.262	77	0.002
	SAD	16.22	9.27			
Self-sacrifice	Nonclinical	15.05	5.69	-0.241	77	0.81
	SAD	15.55	6.71			
Emotional inhibition	Nonclinical	10.58	5.69	-3.334	77	0.001
	SAD	17.88	9.45			
Unrelenting standards/ hypercriticalness	Nonclinical	14.95	6.01	0.542	77	0.589
	SAD	13.77	7.08			
Entitlement/ Grandiosity	Nonclinical	12.39	5.64	-0.288	77	0.774
	SAD	13	8.2			
Insufficient self-control/self-discipline	Nonclinical	10.85	5.54	0.613	77	0.542
	SAD	9.66	4.89			

In Table 4, the difference between the mean scores of maladaptive schemas in subjects with phobias disorders with non-clinical subjects has been compared [11]. As the results of Table 4 show, people with a phobia disorder (especially in schemas like: emotional deprivation, social isolation/ alienation, failure, vulnerability harm or illness, enmeshment/ self undeveloped, and unrelenting standards/hypercriticalness) in general, have a significant difference with clinical subjects (p<0.01).have a significant difference with clinical subjects (p<0.01).

Table 4: The difference between the mean scores of maladaptive schemas in subjects with phobias disorders with non-clinical subjects.

	Group	Mean	Std.Deviation	t	df	Sig
Emotional deprivation	Nonclinical	9.5564	5.55596	-2.62	76	0.011
	phobia	15.25	7.99553			
Abandonment/ Instability	Nonclinical	13.1127	6.53991	1.096	76	0.276
	phobia	10.4864	5.07619			
Mistrust/Abuse	Nonclinical	9.5534	3.74716	0.124	76	0.902
	phobia	9.375	4.83846			
Social isolation/ Alienation	Nonclinical	8.8143	3.99744	-1.942	76	0.056
	phobia	12.125	8.30555			
Defectiveness/Shame	Nonclinical	10.6143	5.39268	-0.184	76	0.855
	phobia	11	7.5214			
Failure	Nonclinical	8.3736	4.00072	-2.158	76	0.034
	phobia	12	7.89213			
Dependence/ Incompetence	Nonclinical	8.4532	4.45046	-0.615	76	0.54
	phobia	9.5011	5.58208			
Vulnerability to harm or illness	Nonclinical	8.8159	4.76182	-2.036	76	0.045
	phobia	12.5	5.63154			
Enmeshment/ Undeveloped self	Nonclinical	9.4756	5.06253	-2.383	76	0.02
	phobia	14.375	8.7658			
Subjugation	Nonclinical	9.2143	5.57659	-1.245	76	0.217
	phobia	11.875	7.03943			
Self-sacrifice	Nonclinical	15.0592	5.69778	1.497	76	0.139
	phobia	11.8844	5.52923			
Emotional inhibition	Nonclinical	10.5833	5.69032	-1.094	76	0.277
	phobia	13	7.81939			
Unrelenting standards/ hypercriticalness	Nonclinical	14.9557	6.01331	2.058	76	0.043
	phobia	10.375	5.44944			
Entitlement/ Grandiosity	Nonclinical	12.3909	5.64502	1.566	76	0.122
	phobia	9.125	4.99821			
Insufficient self-control/self- discipline	Nonclinical	10.8571	5.54895	0.414	76	0.68
	phobia	10	5.47723			

DISCUSSION

As the results of the current study showed the hypotheses of the current study were generally confirmed. Also, the results of the current study showed that the greatest difference between clinical and non-clinical groups is in emotional deprivation, social isolation/alienation, defectiveness/ shame, failure, dependence/incompetence, vulnerability to harm or illness, enmeshment/selfundeveloped, subjugation and emotional inhibition schemes.

Initial maladaptive schemes form the basis of the cognitive constructs of the individual and interact with negative events and psychological pressures of life. When the deepest cognitive structures of planes excited, release levels of excitement which directly or indirectly, lead to various forms of psychological disturbances such as depression, anxiety, interpersonal conflicts and the like [12]. With the increasing incidence of maladaptive cognitive patterns, the prevalence of some disorders increases.

The content of the schemes identifies the type of disorder, such that anxiety schemes are composed of beliefs and assumptions about the risk and disability to deal with it. One point that can be deduced from this discussion is that early maladaptive schemes naturally interfere with the psychological functions of individuals, as the person experiences such situations as emotional deprivation, abandonment, social isolation and inadequacy. Damage to psychological processes can lead to a loss of normal person's excitement. Anxiety is one of the signs of the psychological damage that results from this process [13]. So it seems obvious that when an individual is compiled from incompatible schemes, psychological problems such as anxiety appear in him.

In general, the findings of the current research are consistent with Yang et al., which emphasize the relationship between early maladaptive schemas and behavioral problems. The research of Hamidpur et al. in 2010 aimed at evaluating the effectiveness of schema therapy in treating women with generalized anxiety disorder, showed that the effect of schema therapy on treatment targets is significant [14]. Also, Salari in 2013, in line with current research, looked at the role of early maladaptive schemes in anxiety among students [15]. His research results showed that the field of defect in emotional regulation, lack of emotional clarity and the non-acceptance of emotional responses, vulnerability to disease and abandonment are capable of predicting student anxiety.

CONCLUSION

It can be inferred from the findings of current research that anxiety is associated with issues and events in the early life. These events are reflected in the range of memories, emotions, cognition and perceptions of individuals and have made individuals at different ages vulnerable to problems, especially anxiety, so that anxiety may have formed in response to early maladaptive schemes. In addition, it can be argued that anxiety is the result of the action of schemes that have formed from abnormal childhood relationships. It has been shown that inappropriate behavior of parents during childbearing years is associated with a high risk of anxiety disorders in adulthood. This view has been confirmed in many studies, for example.

One of the limitations of the current study is the low sample size, especially the clinical sample and the lack of access to a sample with agoraphobia disorder. In line with the results of this study, it is suggested that psychiatric and anxiety disorder specialists and therapists should be advised to study and identify early maladaptive schemes modify and adapt maladaptive schemas in part of the treatment process.

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