

Investigation of Early Maladaptive Schemas in Patients with Bipolar Disorder Compared to Healthy Individuals

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Abstract:

This study aimed to compare patients with Bipolar Disorder (BD) and healthy controls regarding Early Maladaptive Schemas (EMSs) in Farshchian hospital, Hamadan. This comparative, descriptive-analytical study was conducted on 40 patients with BD selected through convenience sampling. Also, 40 healthy individuals were randomly selected from the hospital staff. The study data were collected using Young Schema Questionnaire-short form. Then, the data were analyzed using MANOVA with SPSS version 19. The results showed a significant difference between the patients with BD and healthy controls regarding negative schemas, including emotional deprivation ($p=0.000$), instability ($p=0.004$), mistrust/abuse ($p=0.001$), social isolation ($p=0.001$), defectiveness ($p=0.001$), vulnerability to harm ($p=0.002$), enmeshment ($p=0.0006$), subjugation ($p=0.000$), and entitlement ($p=0.014$). However, no significant differences were observed between the two groups concerning some other negative schemas, such as failure, incompetence, hyper criticalness, and insufficient self-control. The study results revealed the necessity to understand EMSs in patients with BD and to use them in their treatment.

Key words: Bipolar Disorder, Mood Disorder, Maladaptive Schemas

INTRODUCTION

Bipolar Disorder (BD) is a chronic, disabling psychiatric disorder, which affects nearly 1.5% of the general population [1, 2]. The complications of this disorder can lead to disability, illness, and suicide. BD is diagnosed by frequent relapses, tacit periods, and mood, sleep, behavioral, perceptual, and cognitive disorders [1]. Besides, it is accompanied by a high rate of illnesses, especially because of its longer illness periods and shorter recovery periods compared to other mood disorders [2]. While the first line of treatment is pharmacotherapy, adjunctive psychotherapy has also shown promise in improving the course of illness, including psycho-education, cognitive-behavioral therapy (CBT), interpersonal and social rhythm therapy and family-focused therapy [3, 4]. Given the complexity of the disorder have suggested reframing BD to account for its chronic course and impacts across the phases of illness, including acute episodes and non-syndromal periods. Placing greater focus on the interepisodic phase, this model calls for new treatments that target the chronic disease characteristics and risk factors to prevent affective episodes and improve long-term disease management [5]. Schema therapy offers considerable potential as just such a treatment [6]. Central to schema therapy are "Early Maladaptive Schemas" (EMSs). EMSs are broad, pervasive themes or patterns relating to the individual and his or her relationships with others, developed during childhood and adolescence and affecting the individual throughout adulthood. EMSs have been shown to mediate the relationship between adverse childhood experiences and

adult psychopathology [7]. Early Maladaptive Schemas (EMSs) are self-destructive emotional and cognitive patterns formed in individuals' minds at the beginning of growth and development. They are in fact comprehensive and deep patterns or themes at the cognition level [8, 9]. Cognitive therapists believe that EMSs are the oldest cognitive components, which exert their effects on information processing system below the consciousness threshold even before a child learns language (preverbal schemas)[10]. Recent studies have indicated that three EMSs, including complacency, entitlement, incompetency in self-control, positive self-adornment, and lack of emotional inhibition, increased the risk of BD. In that study, high-risk individuals showed relatively high rates of all EMSs, except for emotional inhibition [11]. Another study also demonstrated that patients with BD showed higher confirmation seeking, entitlement, and complacency schemas in comparison to depressed individuals. However, they had lesser problems in emotional inhibition and abandonment [12]. Moreover, one other recent research indicated that social isolation, failure, dependence, vulnerability to harm, emotional inhibition, and insufficient self-control, pessimism while controlling depression and temporary recovery were related to functional damage by 28% [13]. The abovementioned schemas normally act in the deepest level of cognitive out of the knowledge level and prone individuals to depression, anxiety, and psychosomatic disorders [14]. Therapists believe that metacognitive techniques can enable individuals to cope with schemas. In this regard, individuals learn to cope with

their emotional states and prevent environmental information deviation by schemas [10]. Considering what was mentioned above, EMSs can play a role in the incidence of BD. Thus, they can be taken into account for planning appropriate treatment interventions for these patients in clinical wards of hospitals and psychiatric clinics. The present study aims to assess EMSs in patients with BD compared to healthy controls in Farshchian psychiatric hospital, Hamadan.

MATERIALS AND METHODS

Research design

This comparative, descriptive-analytical study was conducted on 40 patients with BD and 40 healthy individuals. The patients were selected through convenience sampling. The inclusion criteria of the study were confirmed diagnosis of BD by a psychiatrist, hospitalization between September 2012 and March 2013, willingness to cooperate, and having no history of drug abuse. On the other hand, the exclusion criteria of the study were disease recurrence, change in medications, and unwillingness to continue participation in the research. Age- and sex-matched healthy controls were selected from hospital staff using multi-stage random sampling. The inclusion criteria of the healthy controls were not using psychiatric medications and not having the history of psychiatric diseases and hospitalization.

Materials

The study data were collected using Young Schemas Questionnaire-short form. The original 205-item questionnaire was developed by Young [15]. The short form of this questionnaire was then designed by wellborn [16]. This form included 75 items and 15 subscales as follows: emotional deprivation (ED), instability/abandonment (AB), mistrust/abuse (MU), social isolation (SI), defectiveness/shame (DS), failure (FA), dependence/incompetence (DI), vulnerability to harm (VH), enmeshment (EM), subjugation (SB), self-sacrifice (SS), emotional inhibition (EI), entitlement (US), unrelenting standards/hyper criticalness (ET), and self-discipline/insufficient self-control (IS). The items were scored using a 6-point Likert scale ranging from completely

right to completely wrong. Using the test-retest method, the reliability of the 15 subscales was calculated as 64%. Besides, its concurrent validity was assessed by irrational beliefs test, which revealed the correlation to be 36% and statistically significant. Its face validity was also confirmed by 12 professors in Isfahan [17]. The questionnaire was completed by the patients over the first days of hospitalization. It should be noted that the participants had received the required information and signed written informed consents prior to the study. Besides, the questions were read to patients with low education levels. Descriptive and inferential statistical methods were employed. Descriptive statistics included frequency, mean, standard deviation, and standard error of mean.

Data Analysis

Additionally, MANOVA was used to analyze the data. All data analyses were performed using the SPSS statistical software, version 19 [18, 19].

RESULTS

In order to determine the homogeneity of the study groups, their mean age was compared using independent t-test and their sex using frequency test. The results of independent t-test revealed no significant differences between the two groups regarding mean age (Table1 and Figure 1). Among the participants in both study groups, 18 (45.0%) were female and 22 (55.0%) were male (Table2). Descriptive statistics (mean \pm SD) of schema variables in the two groups have been presented in Table 3. Accordingly, the means of ED, AB, MU, SI, DS, VH, EM, SB, US, SS, IS, DI, and FA were higher in the patients with BD compared to healthy controls. However, the means of ES and EI were higher in healthy controls in comparison to the patients (Table3). In this study, normal distribution of the data was confirmed by Kolmogorov-Smirnov test. In addition, equality of variance and covariance of dependent variables was approved using Box test. Therefore, MANOVA could be run and the results have been presented in Table 4. Accordingly, the two groups were significantly different regarding ED, AB, MU, SI, DS, VH, EM, SB and SU. However, no significant difference was found between the two groups concerning IS, ES, SS, EI, DI, and FA.

Table 1. The results of descriptive statistics and independent t-test regarding the mean age in the two groups

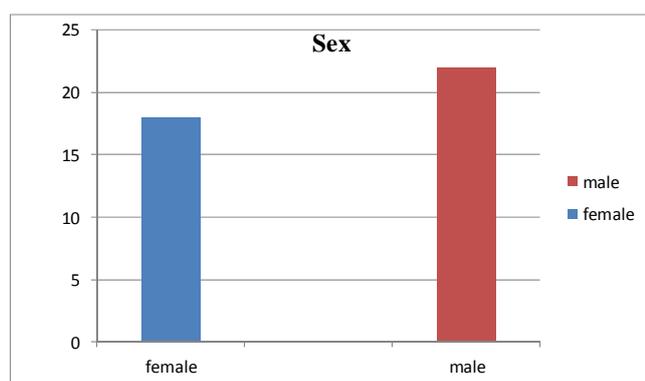
Group	Number	Minimum	Maximum	Mean	SD	T	P-value
Healthy	40	18	40	22.88	4.657	-1.09	0.28
Bipolar	40	16	58	34.400	14.372		

Table 2. Frequency distribution of gender in the study population

Variable		Group	frequency	Percent
sex	Female	Healthy	18	45.0
		Bipolar	18	45.0
		Total	36	100
	Male	Healthy	22	55.0
		Bipolar	22	55.0
		Total	44	100

Table 3. Descriptive statistics of Schema variables.

Schema	f	p-value	CV	Schema	f	p-value	CV
Emotional Deprivation	42.74	0.000	0.36	Enmeshment	8.02	0.0006	0.09
Abandonment	8.95	0.004	0.10	Subjugation	17.43	0.000	0.19
Mistrust/Abuse	12.16	0.001	0.14	Emotional Inhibition	6.36	0.014	0.08
Social Isolation	12.25	0.001	0.14	Self-sacrifice	0.87	0.355	0.01
Defectiveness/Shame	11.36	0.001	0.13	Entitlement	1.86	0.177	0.02
Failure	1.55	0.217	0.02	Unrelenting Standard	2.92	0.091	0.04
Dependence/Incompetence	0.23	0.636	0.003	Insufficient Self-control	1.71	0.195	0.02
Vulnerability to Harm	9.85	0.002	0.11				

**Figure 1.** Frequency distribution of gender in the study population.

DISCUSSION

The study results revealed a significant difference between the patients with BD and healthy controls with respect to ED, MU, SI, DS, VH, EM, SB, and US. However, no significant difference was found between the two groups regarding AB, FA, DI, SS, ET, and IS. These results were in line with those of the research by Hawke et al, 2011, which indicated that high-risk individuals showed high rates of EMSs, except for EI. The results of the two studies were consistent with respect to ED, MU, SI, DS, VH, EM, SB, US, and EI, but not AB, FA, DI, SS, ET, and IS [11]. In another study, Hawke et al, 2012 reported that patients with BD showed more entitlement and complacency at the time of controlling depression compared to healthy individuals. However, they had lesser problems in EI and AB, which is in agreement with the findings of the present research [12]. Lapskili et al, 2012 also conducted a study in Turkey and reported a considerable difference between patients with BD and healthy controls with regard to negative schemas, except for AB and EI. These results were corresponding to those of the current research, except for FA, DI, SS, ET,

and IS [20]. Similarly, Nilsson et al, 2012 investigated the relationship between EMSs and functional damage in patients with controlled BD. The results indicated that SI, FA, VH, EI, IS, and pessimism at the time of controlling depression were related to functional damage by 28%. These results were in agreement to those of our study regarding SI and VH, but not FA and EI [13]. Nabizadeh et al, 2014 investigated 18 EMSs and emotional temperaments in patients with borderline personality disorder, patients with BD, and normal individuals. The results revealed that in comparison to normal individuals, patients with BD obtained higher scores in MU, SI, VH, EM, and US, which is similar to the results of the current study. However, the two studies were not consistent with respect to AB [21]. Nilsson et al, 2014 also reported higher scores of AB, FA, IS, SB, SS, EM and ES, which is in agreement with our study findings, except for ES. It should be noted that Nilsson compared patients with BD to those with major depressive disorder [22]. Ghaderi et al, 2014 also reported that patients with BD gained higher scores in AB, SI, DS, FA, VH, EM, SB, and SS, which is in line with the findings of the current study. Nevertheless, the two studies were different with regard to using a control group and investigating the effectiveness of schema therapy in modification of schemas [23].

CONCLUSION

The results of the present study demonstrated that in addition to emotional and mood disorders, patients with BD showed higher ED, MU, SI, DS, VH, EM, and SB compared to healthy individuals. However, no significant difference was observed between the two groups concerning AB, FA, DI, EI, ET, and IS. Therefore, it is necessary to understand EMSs and take them into account in treatment of such patients.

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CONFLICT OF INTEREST:

There is no conflict of interest to be declared

AUTHORS' CONTRIBUTIONS:

All authors contributed to this project and article equally. All authors read and approved the final manuscript

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