



## Family functioning in families of patients with schizophrenia and mood disorders

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### Original Article

#### Abstract

**BACKGROUND:** Family functioning is one of the most important aspects of psychiatric treatment. The purpose of this study was the comparison of family functioning in family members of schizophrenic patients and patients with mood disorders in Shahrekord, Iran.

**METHODS:** This analytical descriptive study was conducted on family members of 186 patients diagnosed with schizophrenia and mood disorders. The data were collected through interviews using the family assessment device. Data were analyzed using chi-square, Student's t-test, Pearson correlation, and multivariate analysis of variance (MANOVA).

**RESULTS:** The mean total score of the questionnaire in the family members of patients with mood disorders ( $2.34 \pm 0.26$ ) was significantly ( $P < 0.001$ ) lower than that in schizophrenic patients' family members ( $2.55 \pm 0.31$ ).

**CONCLUSION:** The present study highlighted that family functioning among family members of patients with schizophrenia had problems in all domains.

**KEYWORDS:** Family Functioning, Mood Disorder, Schizophrenia

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### Introduction

Family functioning is one of the most important aspects of the treatment of psychiatric patients. Good family functioning helps family members in preserving the dimensions of communication, emotional and behavior control, problem solving, and coping behaviors.<sup>1</sup>

Some studies have reported that good family functioning facilitated patient's recovery and reduced the risk of suicide.<sup>2-3</sup> Furthermore, studies have found that family functioning in the families of psychiatric patients was lower than nonclinical control subjects.<sup>4</sup>

In the study by Sawant and Jethwani, relatives

of schizophrenic patients had more difficulty on the roles, general functioning, and behavior control domains in the Family Assessment Device (FAD).<sup>5</sup> Unal et al. reported that the general functionality level and subscales of communication were low in families with schizophrenia, whilst behavior control was reported as highly ineffective.<sup>6</sup>

In addition, major mood disorders, unipolar (UP) depression, and bipolar disorders (BD), both BD I and II expressions, have high lifetime prevalence. A decade earlier, a World Health Organization (WHO) report announced that BD is more impairing than all forms of cancer, Alzheimer's disease, and epilepsy. In addition to social and personal costs, unipolar and bipolar disorders impose a range of financial costs on individuals, households, employers, and

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government and society as a whole.<sup>7</sup> Families of patients with BD report lower levels of family cohesion and adaptability and higher levels of conflict than families of healthy children or population norms.<sup>7-9</sup>

Today, the responsibility of care has been placed on families who are the forefront of caregivers and are confronted with different problems such as fear and anxiety in relation to the patient's symptoms.<sup>10</sup> Severe mental illness affects all dimensions of family functioning and alters family roles and relations, but family members often do not receive adequate assistance from mental health professionals.<sup>11</sup>

Assessment of the patient's family functioning and their communication with each other are some of the tasks of and standards for psychiatric-mental health nursing practice.<sup>12</sup> There are a limited number of studies on family functioning in family members of psychiatric patients in the Iranian population. Therefore, the present study was performed with the purpose of studying family functioning in family members of patients with schizophrenia and mood disorders in Shahrekord, Iran.

## Materials and Methods

This analytical descriptive study was conducted on family members of 186 patients diagnosed with schizophrenia and mood disorders between May and December 2009. The study design was approved by the Ethical Committee of Shahrekord University of Medical Sciences. Family members of patients who were diagnosed with schizophrenia and mood disorders according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) criteria and admitted to the psychiatry ward of Hajar Hospital, Shahrekord were invited to participate in this study. Inclusion criteria for the family members consist of being a healthy relative, such as parents, sibling, or spouse, of the patients, living with the patient (main caretaker of the patient), and older than 18 years of age. Written informed consents were obtained from all

participants.

In total, 186 family members participated in the study and were divided into 2 groups based on the patient's diagnosis on schizophrenia (n = 106), and mood disorders (n = 80).

Data gathering was conducted by the researcher, who was a psychiatric nurse with a master's degree. Regarding family member's condition and inability in filling the questionnaires, the researcher had to ask the questions and record their answers in the questionnaires.

In this study, a demographic questionnaire and the Family Assessment Device (FAD) were used. The demographic information questionnaire was designed by the researchers. The family members of patients were asked to give some information about their age, relationship with the patient, and the patient's age, sex, education, duration of illness, and marital status.

The FAD consists of statements about family which are scored based on a 4-point scale; completely agree, agree, disagree, and completely disagree. The FAD consists of 7 subscales with a Cronbach's alphas of 0.74 for problem solving, 0.75 for communication, 0.72 for roles, 0.83 for emotional responsiveness, 0.78 for emotional involvement, 0.72 for behavior control, and 0.92 for general functioning.<sup>13</sup> All participants who were over 12 years of age were allowed to fill in the form; therefore, this questionnaire is suitable for use in this study.<sup>13</sup> This questionnaire is a suitable device for clinical screening and research.<sup>13</sup> In Iran, FAD was translated by Najjarian in 1995,<sup>14</sup> and Yoosefi in 2012. The internal reliability (Cronbach's alphas) of the Persian version of FAD was 0.86 for problem solving, 0.87 for communication, 0.87 for roles, 0.81 for emotional responsiveness, 0.89 for emotional involvement, 0.87 for behavior control, and 0.82 for general functioning.<sup>15</sup>

Student's t-test was used to compare FAD mean scores between the two diagnostic groups of patient's family members. All statistical analyses were performed using SPSS (version 16,

SPSS Inc., Chicago, IL, USA) and chi-square, Student's t-test, Pearson correlation, and multivariate analysis of variance (MANOVA). All P values below 0.05 (two-tailed test) were considered significant.

## Results

### Characteristics of the sample

In total, 186 family members participated in the study. Regarding patients' diagnosis, 56.98% (n = 106), and 43.02% (n=80) of participants were family members of patients with schizophrenia and mood disorders, respectively. Mood disorders group consisted of 73.8% (n = 59) major depressive disorder and 26.2% (n = 21) bipolar disorder. The demographic structure of the patients showed that the mean age of patients was  $38.76 \pm 14.5$  years and consisted of 68.4% (n = 128) men and 31.6% (n = 58) women. In addition, most of them were illiterate (89.24%). The mean duration of illness was  $3.46 \pm 2.17$  years, and 47.32% of participants had been married. The mean age of the family members was  $40.5 \pm 12.37$  years and 65% were women and 35% men. The majority of the caregivers were

parents or spouses of the patients. In this study, demographic characteristics (such as age of patients, duration of illness, age of caregivers, frequency of hospitalization, and relationship of caregivers with patients) were similar in both groups (Table 1), while other variables (like sex, educational level, and marriage condition of patients) were different and analyzed as confounding variables.

### FAD scores

The mean total FAD score in schizophrenic and mood disorder groups were  $2.55 \pm 0.31$  and  $2.34 \pm 0.26$ , respectively ( $P < 0.001$ ). In the schizophrenic group, affective involvement score ( $2.71 \pm 0.46$ ) and in the mood disorders group affective responsiveness ( $2.5 \pm 0.37$ ) was higher than other dimensions ( $P = 0.001$ ). The Pearson correlation test demonstrated a significant positive correlation between different dimensions of FAD in each study group ( $P < 0.001$ ). Regarding this correlation, MANOVA was conducted to compare FAD dimensions in the two study groups and Wilks's lambda statistics showed a significant statistical difference in FAD dimensions between the two study groups ( $P = 0.009$ ).

**Table 1. Demographic characteristics of family members in the two groups**

		Schizophrenic group (n = 106)	Mood Disorders group (n = 80)	Total patients (n = 186)	P	
Patients	Age (year) (mean $\pm$ SD)	$39.90 \pm 12.80$	$37.2 \pm 16.5$	$38.76 \pm 14.5$	0.223	
	Sex (%)	Male	66 (61.7)	62 (77.5)	128 (68.4%)	0.026*
		Female	40 (38.3)	18 (22.5)	58 (31.6%)	
	Education (%)	Literate	5 (4.72)	15 (18.8)	20 (10.76%)	0.002*
		Illiterate	101 (95.28)	65 (81.2)	166 (89.24%)	
	Marital status (%)	Married	39 (36.80)	49 (61.2)	88 (47.6%)	0.002*
		Single or divorced	67 (63.20)	31 (38.8)	98 (52.68%)	
Duration of illness (mean $\pm$ SD)		$3.5 \pm 2.4$	$3.46 \pm 2.17$	0.681		
Frequency of hospitalization (mean $\pm$ SD)		$5.9 \pm 5.0$	$5.19 \pm 4.4$	$6.0 \pm 4.7$	0.0943	
Family members	Age (year) (mean $\pm$ SD)	$42.5 \pm 10.28$	$38.5 \pm 14.47$	$40.5 \pm 12.37$	0.063	
	Relationship of caregivers with patient (%)	Parent	46 (43.40)	44 (55.0)	90 (48.39)	0.139
		Spouse	60 (56.60)	36 (45.0)	96 (51.61)	

\* Significant differences

**Table 2. Family Assessment Device (FAD) scores in family members of patients in the two diagnostic groups**

FAD Sub-scales	Mood disorders group (mean ± SD)*	Schizophrenia group (mean ± SD)*	P
Problem solving	2.01 ± 0.39	2.36 ± 0.60	< 0.001
Communication	2.25 ± 0.32	2.40 ± 0.37	0.001
Roles	2.45 ± 0.32	2.64 ± 0.36	0.020
Affective responsiveness	2.50 ± 0.37	2.61 ± 0.35	0.064**
Affective involvement	2.45 ± 0.49	2.71 ± 0.46	0.001
Behavior control	2.41 ± 0.35	2.63 ± 0.42	0.006
General functioning	2.32 ± 0.32	2.57 ± 0.41	< 0.001
Total score	2.34 ± 0.26	2.55 ± 0.31	< 0.001

\* Higher score shows lower family functioning; \*\* No significant differences; SD: Standard deviation

Considering confounding variables, only affective responsiveness in FAD domains had no significant difference in the two study groups ( $P = 0.064$ ); however, the family members in the schizophrenic group had more difficulty as compared to the mood disorders group (Table 2).

Findings of the study showed that relation of caregivers with the patients, as a confounding variable, had no significant effects on the study results ( $P = 0.139$ ).

## Discussion

Taking care of a relative with serious mental illness has an emotional and practical impact on the caregivers and is associated with their physical, psychological, and financial burdens.<sup>16,17</sup>

Results of the present study showed that family functioning was significantly better in the family members of patients with mood disorders than the schizophrenic patients. This finding was similar to that of the study of Unal *et al.*<sup>6</sup> Nevertheless, Koyama *et al.* found no significant difference among schizophrenic, major depressive, and bipolar disorder family members using FAD.<sup>18</sup> There is a cultural difference in stigmatization among families of psychiatric patients. In the Iranian population, among patients and their families, mood disorders are more acceptable and less stigmatized than schizophrenia. Families of patients with schizophrenia prefer to conceal the mental illness of their relatives. Therefore, this difference may be related to the level of stigmatization among caregivers of patients with schizophrenia in

different societies.

In addition, subscales of family functioning were reported as highly ineffective by the family members of patients with schizophrenia, especially in the affective involvement domain. Affective involvement refers to the amount of interest, care, and concern that family members invest in each other. The present study showed that family members of patients with schizophrenia were less able to show interest and care to one another (affective involvement), had poorer problem solving ability (problem solving), were less able to perform behaviors to fulfill the instrumental and affective needs of family members (roles), less able to transmit clear and directive verbal messages (communication), and less able to give affective response with appropriate quality and quantity of feelings (affective responsiveness). Regarding the roles of family in providing care for their members with a mental illness, they may be unable to successfully adapt to the excessive demands of the illness. Caqueo-Urizar *et al.*, in a review research on the quality of life of caregivers of patients with schizophrenia, showed that the burden of care could increase family dysfunction. In particular, economic burden could negatively affect the quality of life of caregivers in developing countries, in which there is a limited number of healthcare professionals and healthcare centers, and the cost of schizophrenia's treatment is high.<sup>19</sup>

Family environment may be a major contributing factor to critical stress levels among

patients with schizophrenia. Expressed emotion (EE) is one of the major psychosocial stressor and it has direct relation with recurrence of schizophrenia. Patients with schizophrenia living with close relatives, who have negative attitudes, are significantly more likely to relapse.<sup>20</sup>

In the mood disorders group, affective responsiveness was significantly higher than other FAD dimensions. Affective responsiveness assesses the ability of family members to respond with appropriate quality and quantity of feeling to a wide range of stimuli. Heru *et al.* examined the quality of life of caregivers of hospitalized relatives with mood disorders.<sup>21</sup> Caregivers reported poor social, physical, and emotional and family functioning in the areas of roles, communication, and affective involvement.<sup>21</sup> However, in the study of Unal *et al.*, the families of patients with bipolar affective disorder evaluated their problem solving and general functioning as problematic.<sup>6</sup> These results are consistent with that of previous research which demonstrated that families of depressed patients manifest impairment in different areas of family functioning.<sup>22</sup>

The family plays different roles in the treatment process, course of the illness, and relapse prevention. Effective family functioning is important to the well-being of the family as a whole. Evidently, having a patient with severe psychiatric disorders, such as schizophrenia, could affect the family members. A primary goal of nursing practice for these families is empowering the families by recognizing their strengths, resources, and adaptive capabilities. Nurses can assist the families in working with their strengths and inner resources as well as their personal limitations in managing the illness.<sup>23</sup> Mental health nurses, have the ideal opportunity to assist the families to promote their effective coping behaviors, communication skills, and social support systems, satisfactory interpersonal relationships, and active decision-making skills. Nursing interventions that specifically strengthen daily coping, adaptation,

caregiver health condition, and quality of life for families living with severe mental illness are potentially powerful fields for psychiatric nursing research.<sup>12</sup> Therefore, nurses and other treatment team should focus not only on caring for patients with severe psychiatric disorders like schizophrenia, but also managing the problems of family members living with these patients.

### Conclusion

The present study highlights poor family functioning among caregivers of patients with psychiatric disorders specially schizophrenia. This may be due to the presence of emotional distress and frustration related to taking care of these patients. Psychiatric nurses and other treatment team must remember that the family and friends are major support systems for their loved ones with schizophrenia and other psychiatric disorders and the promotion of family involvement in all steps of the treatment process and the respectful treatment of families are essential to the welfare of the family as a cohesive unit.

The study had some limitations. The sample size was small and we did not employ a non-clinical control group. Comparison between parents and spouses among the caregivers would also provide additional insight into the discrepancy of perception among the family members as well as the patient population.

### Conflict of Interests

Authors have no conflict of interests.

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