



## Research article

## The effect of group psychological training on the attitude of family caregivers of patients with schizophrenia

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## ABSTRACT

**Background and aim:** Mental disorders are among the most common diseases in the world. Not only the lack of social support and health services but also the social stigma surrounding individuals with mental disorders and their family members has exacerbated the difficulty of living with and caring for these patients. The present study aimed to determine the effect of group psychological training on the attitudes of family caregivers taking care of patients with schizophrenia as a common mental disorder.

**Materials and methods:** This interventional study was conducted on 60 caregivers of patients with schizophrenia who had a history of hospitalization in the psychiatric ward of Imam Reza Hospital of Birjand in 2020. The intervention group attended eight 90-minute sessions of psychological training in four weeks. However, the control group received no educational intervention during the study period. The opinions about mental illness scale (OMI) modified by Cohen and Struening was used to collect data before and after the intervention. Data were analyzed using SPSS<sub>16</sub> by running descriptive statistics, Chi-square, independent t-test, and paired t-test at the significance level of 0.05.

**Results:** The mean scores of attitudes toward mental illness were not significantly different between the intervention ( $87.37 \pm 15.51$ ) and control ( $89.48 \pm 14.08$ ) groups before the intervention ( $P > 0.05$ ). However, the mean scores of the intervention group ( $156.44 \pm 10.09$ ) increased significantly compared to the mean scores of the control group ( $88.4 \pm 16.15$ ) followed by the intervention ( $P < 0.05$ ).

**Conclusion:** According to the study results, psychological group training is effective in improving the attitudes of family caregivers of schizophrenic patients. So, it can be applied method of this study as simple, low-cost, and effective in improving the life quality of schizophrenic patients and their families.

## 1. Introduction

Mental disorders are among the most common diseases in different cultures and communities throughout the world [1]. Among the psychiatric disorders, schizophrenia is considered a serious mental health problem affecting about one percent of the world's population [2], so about 1.5–3% of the total health expenditures account for this disease in developed countries [3]. Schizophrenia is a heterogeneous and asymptomatic disorder diagnosed through interviews, examinations, and repeated encounters with people reporting hallucinations, delusions, and other mental disorders [4]. Despite the low prevalence rate, schizophrenia has detrimental effects on patients' lives, and their families and

caregivers [5]. Family members of patients with schizophrenia are faced with challenges of living and dealing with these patients, stigma associated with mental illness, family conflicts, financial problems, social isolation, and lack of social support [4].

In this vein, the World Health Organization has noted the necessity of paying attention to the role of family members in caring for people with mental disorders (PWMI) [6]. In other words, the family as a hidden health care system cooperates with the health system and has turned into an institution where the patient lives [7, 8]. Although keeping patients with psychological problems at home has greatly reduced the national cost of treatment, it has placed a heavy burden on the families [9]. Families often feel isolated and hopeless due to their lack of knowledge

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and skills to care for a patient with schizophrenia, strange behaviors of their relatives, and external stressors, such as stigma [10]. Patients and their family members usually experience deep emotional disorders, such as stress, anxiety, and depression that exacerbate their problems [11].

Therefore, a positive attitude toward mental illness is considered an important factor in communication with the mentally ill and this predicts success in their rehabilitation and returns to society [12]. On the other hand, a negative attitude toward mental illness has an important role in stigmatizing people with these disorders, which may determine the prognosis of mental disorders regardless of medical treatment [13]. Another side effect of negative attitude is the lack of complete follow-up of a treatment and medication programs by patients, which leads to increased recurrence and readmission [14].

Considering the prevalence of psychological problems, such as anxiety and depression among caregivers of patients with schizophrenia, some therapeutic interventions, such as education, support, and psychotherapy can have a significant impact on reducing the psychological burden on family caregivers. Consequently, the quality of physical and mental health care services can be improved for patients and their family caregivers [15]. In this regard, group psychological education can improve the level of awareness among family caregivers about mental disorders and enhance their cooperation in rendering care and treatment services to patients. Such educational programs provide the participants with information on the nature, treatment methods, outcomes, prognosis, progression, and relapse of mental disorders and assist them to accept the treatment procedures to help these patients [16].

These training programs supply the family caregivers of PWMI with a safe environment with mutual acceptance and trust by creating interaction and communication among all members so that no one feels inferior. Followed by obtaining the scientific information about the causes, symptoms, and treatment of mental illnesses, the family caregivers' stereotypes (as a major cause of their negative attitudes) were changed. Subsequently, their misconceptions improved about mental illnesses as well as their dangerous and incurable nature [17].

Due to the limited number of studies in this field, especially in the domestic nursing profession in Iran and the emphasis on holistic nursing concerning patients' families and considering the importance of increasing the knowledge and positive attitude of informal caregivers towards schizophrenia in accepting and caring for patients, as well as increasing the ability of caregivers to control the consequences of the presence of schizophrenia patient in the family and reduce their fear of social stigma, this study investigated the effect of group psychological education method on the attitude of their family caregivers.

## 2. Materials and methods

This study is an interventional study based on the pre-test-post-test design with the control group. In this study, the statistical population was all family caregivers of patients with schizophrenia who had a history of hospitalization in Imam Reza Hospital of Birjand affiliated with Birjand University of Medical Sciences in 2020.

Based on the sample size determination formula  $\frac{(z_{1-\frac{\alpha}{2}}+z_{2-\beta})^2(s_1^2+s_2^2)}{(\mu_1-\mu_2)^2}$  and mean scores and standard deviations of the intervention ( $105.43 \pm 14.72$ ) and control ( $90.52 \pm 7.50$ ) groups in terms of their attitude towards mental illness, 95% confidence interval ( $\alpha = 0.05$ ), and test power of 85%, and taking into account the possibility of falling, the study sample size was calculated as 30 people in each group.

Based on the inclusion criteria, family members of the patients with schizophrenia who were responsible for the health, treatment, care, and support of the patient, had not participated in psychological training sessions previously and had no history of mental disorders or hospitalization in psychiatric wards were selected as the study participants. Caregivers who were not willing to participate in the study and did not attend more than two sessions of the educational course were excluded from the study.

After referring to the mentioned hospital and reviewing the patients' files, the names of all patients with schizophrenia were extracted, then the informal caregivers of patients interested in participating in the study and the eligible condition were selected from their family members. After providing explanations about the plan and implementation method, they entered the study with satisfaction. Sixty patient caregivers were selected by purposive sampling method and then divided into two groups of intervention and control using via block random sampling method.

A demographic questionnaire including age, sex, marital status, and level of education of participants and the Cohen and Struening's opinions about mental illness (OMI) scale (1962), developed to measure attitudes toward mentally ill people, were administered to collect data. Although the main version of the questionnaire consists of 51 items, the modified version contains 34-item was used in the present study dealing with six dimensions: 1) separation (10 items), defined as the uniqueness of mental patients and the need to keep them in special centers; 2) stereotyping (4 items), known as having specific behavioral patterns; 3) restrictiveness (4 items), explained as the need to limit the rights of PWMI; 4) benevolence (8 items), identified as showing kindness and passion for PWMI; 5) pessimistic prediction (4 items) is lack of optimism about the ideal treatment of PWMI; 6) stigmatization represents feeling ashamed about mental illness and the need to hide it. Options are set on a five-point Likert scale (strongly agree = 1 score to strongly disagree = 5 scores) but the reversed scoring method was employed (strongly agree = 5 scores to strongly disagree = 1 score) for some items based on their stem. The minimum and maximum attainable scores were 34 and 170, respectively. Scores higher than 102 (mean score) indicate the respondent's positive attitude towards mental illness. The validity of the questionnaire was confirmed by a panel of experts in psychiatry and clinical psychology. Namdar et al. Also reported the reliability of the questionnaire  $\alpha = 0.82$  in their research [18]. Also in this study on 60 people, a Cronbach's alpha equal to 0.85 was obtained.

In the following, eight 90-minute educational sessions with group discussions, Q&A, and presenting pamphlets were held twice a week consecutively by an intern student of the Psychiatry Department. The topics covered through the psychological education course was presented in Table 1.

The OMI scale was administered among all participants before training and two weeks after the training. The questionnaires were completed by self-report by informal caregivers, but the researcher provided the participants with necessary instructions before distributing the questionnaires and when necessary, their questions were explained by the researcher. The control group's family caregivers were also provided with the opportunity to attend another similar training course at the end of the research to observe the principles of research ethics. This study was

**Table 1.** The topics covered through the psychological education course among family caregivers of patients with schizophrenia.

Session	Topics
1	Presenting objectives of the training sessions, principles and criteria of mental health, role of the family in the development and maintenance of family members' health, and familiarity with the causes and factors affecting the development of mental disorders
2	Familiarity with schizophrenia disorder: definition, etiology, signs and symptoms, types, course, and prognosis
3	How to communicate with the patient; how to care for and deal with the disease signs and symptoms, especially hallucinations, delusions, and aggression; how to secure the patient's living environment to prevent aggressive and suicidal situations; how to refer to the related medical and other supporting centers in the case of suicidal and aggressive events
4–5	Familiarity with drug therapies, side effects, and their related care; the importance of drug therapy and its role in preventing the disease relapse
6	Teaching problem-solving methods and correct coping strategies
7	How to destigmatize mental disorders
8	A review of the materials covered in previous sessions, conclusions, and closure of the program

**Table 2.** Basic characteristics in two groups.

Variable	sub variable	Intervention No (%)	Control No (%)	P-value
Sex	Male	15 (51.7)	15 (55.5)	0.49
	Female	14 (48.3)	12 (44.5)	
Primary		2 (7)	1 (3.5)	0.83
First High School		8 (27.5)	7 (26)	
Secondary school		12 (41)	14 (48)	0.43
Masters		5 (21)	5 (18.5)	
MA		1 (3.5)	0	0.43
Marital statuses		7 (24.1)	8 (29.6)	
		22 (75.9)	19 (70.4)	
Age in mean (SD)		40.34 (10.61)	39.03 (7.51)	0.59

approved by the Ethics Council of Birjand University of Medical Sciences with the Ethics Code of IR.BUMS.REC.1398.093. Data were analyzed using SPSS<sub>16</sub> software, a Chi-square test was used to compare the qualitative variables, an independent t-test was used to compare two groups in the baseline, paired t-test was used to compare the scores before and after the education, and an independent t-test was used to compare the mean changes. The normality of the data was checked by Kolmogorov–Smirnov test and the data were normal, Significance level of less than 0.05 was considered.

### 3. Results

In this study, 56 people in two groups are included. The two groups were similar in terms of age, sex, marital status, and level of education (Table 2).

The statistics presented in Table 3 indicate a significant difference between the pre-test and post-test total mean scores and scores calculated for the dimensions of the OMI scale (separation, stereotyping, restrictiveness, benevolence, pessimistic prediction, and stigmatization) in the intervention ( $p < 0.05$ ). Thus, it can be concluded that group psychological training had a positive and significant effect on the attitude of family caregivers. However, no significant difference was found between the mean scores of the control group in the pre-test and post-test ( $p > 0.05$ ).

The results presented in Table 3 show a significant difference between the attitude mean scores of the intervention and control groups followed by the group psychological training ( $p < 0.05$ ).

### 4. Discussion

This study was carried out to investigate the effect of group psychological training on the attitudes of family caregivers of schizophrenia patients. According to the findings, group psychological training had a positive and significant effect on the attitude of family caregivers, which is consistent with the results reported by Taghavi Larjani et al. [19], Sharif et al. [20], Çuhadar et al. [21], and Shaheri et al. [22]. They noted that psychological education improved the attitude of family caregivers towards mental illness and increase their Resilience. In other words, psychological training of family caregivers enhances their knowledge about mental illness and its curable nature, which reduces their negative attitudes consequently [23]. Psychological education assists people to accept PWMI in the family and normalizes the patient's symptoms, signs, and abnormal behaviors (which need treatment) [21]. Also, it increases empowerment, knowledge, and coping among caregivers of people with serious mental illness, and reduces their distress [24]. Family caregivers stop blaming themselves and feel less shameful by knowing about the causes of schizophrenia, correcting stereotypes, learning how to deal with the patient efficiently, formulating logical expectations from PWMI, and expressing less negative emotions towards the patient [25, 26].

Implementation of group psychological training provides a safe environment with mutual acceptance and trust by creating interaction and communication among all members so that no one feels inferior. Psychological education can also change the misperceptions of families about the dangerous and incurable nature of mental illness by providing scientific information about the causes, symptoms, and treatments of the disease and correcting the existing beliefs [27].

Our findings also indicated a significant difference between the attitude mean scores of the intervention group before and after attending the group psychological training, which is supported by Farhall et al. [28], Vaghee et al. [29], and Mirshah et al. [27]. Matías E Rodríguez-Rivas et al indicated education programs can contribute to reducing stigma regarding mental disorders [30]. The significant reduction in the participants' attitude means scores followed by the intervention confirm that the psychological education course can reduce the psychological burden of caregivers. Therefore, conducting psychological education in the form of group discussion and questions and answers between home caregivers of patients with mental disorders provides these conditions and by creating interaction and communication between participating members, creates a safe and accepting environment so that the person feels low inferiority. Also, psychological education can provide real information about the causes, symptoms, and treatment of mental illness, stereotypes that are among the main negative attitudes towards social groups by

**Table 3.** Attitude mean scores of the family caregivers caring for patients with schizophrenia before and after training.

Dimensions	Group	Pre-test Mean (SD)	Post-test Mean (SD)	P-value	Mean difference	P-value
Separation	Intervention	26.34 (5.07)	29.69 (5.07)	0.0001*	3.35	0.0001
	Control	26 (6.12)	25.81 (5.79)	0.64	0.19	
Stereotyping	Intervention	10.55 (2.78)	11.72 (2.83)	0.001*	1.17	0.072
	Control	10.70 (2.65)	11.14 (2.69)	0.051	0.44	
Restrictiveness	Intervention	9.34 (1.83)	12.06 (2.68)	0.0001*	2.72	0.004
	Control	9.07 (1.79)	9.88 (3.23)	0.09	0.81	
Benevolence	Intervention	21.51 (6.37)	25.93 (6.02)	0.0001*	4.42	0.0001
	Control	20.11 (5.10)	19.44 (5.79)	0.22	0.67	
Pessimistic prediction	Intervention	10.51 (3.01)	13.27 (2.73)	0.0001*	2.76	0.0001
	Control	10.25 (2.39)	10.48 (2.37)	0.56	0.23	
Stigmatization	Intervention	11.20 (2.48)	13.75 (2.62)	0.0001*	2.55	0.0001
	Control	11.22 (2.66)	11.62 (3.42)	0.25	0.4	
Total score	Intervention	89.48 (14.08)	106.44 (15.09)	0.0001*	16.96	0.0001
	Control	87.37 (15.51)	88.40 (16.15)	0.24	1.03	

\*P &lt; 0.05.

correcting families' misconceptions about mental illness and beliefs about the nature of danger [17]. As a result, it can be concluded that group psychological education has a significant effect on reducing the psychological burden on family caregivers.

**Limitation:** An important limitation of this study was the lack of previous studies in the study area on the attitudes of caregivers with different cultures in the field of care and the presence of a schizophrenia patient in the family.

## 5. Conclusion and suggestion

According to the study results, psychological group training is effective in improving the attitudes of family caregivers of schizophrenic patients. So, it can be applied method of this study as a simple, low-cost, non-pharmacologique, and effective in improving the life quality of schizophrenic patients and their families of patients. And it can prevent the recurrence of symptoms in patients. Implementing educational courses by health service providers for caregivers of schizophrenia patients is recommended to improve care. It is suggested that other outcomes be considered in future studies with a greater sample size.

## Declarations

### Author contribution statement

Ali Akbar Esmaeili; Amir Saeidi; Yahya Mohammadi; Mohammadreza Raeisoon: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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### Data availability statement

The authors do not have permission to share data.

### Declaration of interests statement

The authors declare no conflict of interest.

### Additional information

No additional information is available for this paper.

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