

# The Relationship between Irrational Beliefs and Quality of Life in Schizophrenic Patients

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## Abstract

Irrational beliefs are often caused by misunderstanding in schizophrenic patients. This causes high-risk and unnatural behaviors, and disrupts the function and quality of life of patients. Therefore, this study was performed to investigate the relationship between irrational beliefs and quality of life in schizophrenic patients. This descriptive correlational study was performed on 125 schizophrenic patients in 2019. The data collection tools included Irrational Belief Questionnaire (IBQ) and quality of life questionnaire for schizophrenic patients. The collected data were analyzed by SPSS-21 statistical software using descriptive statistics (mean and standard deviation) and inferential statistics (U Mann-Whitney and Kruskal-Wallis). The score of irrational beliefs and quality of life was  $126.96 \pm 14.12$  and  $91.91 \pm 9.91$ , respectively. Spearman correlation coefficient test did not show a significant relationship between irrational beliefs and quality of life ( $r=-0.04$ ,  $P=0.62$ ). The results showed a high level of irrational beliefs and a low level of quality of life among the participants, but it did not show a significant relationship between these two variables, which can be due to other cultural and social factors. Therefore, it is necessary for health managers and planners to improve the quality of life of schizophrenic patients by strengthening support systems and providing rehabilitation services for schizophrenic patients.

**Keywords:** Psychiatric • Illnesses • Anxiety

## Introduction

Schizophrenia is one of the most common psychiatric illnesses with the prevalence of 15.2% per 100,000 people [1,2]. The prevalence of this disorder in Iran is 1% of the country's population [3]. The prevalence of this disorder is the same in men and women, but the onset of symptoms occurs earlier in men [4]. The age of onset of this disease is 15-25 years [5]. The main characteristics of this disorder are intellectual disability, decreased emotional responses, decreased social functioning and inability to understand reality [6]. Hallucination and irrational beliefs are the main characteristics of this disorder [7].

Schizophrenic patients have many obsessive-compulsive mental occupations, and often have little resilience towards these obsessive thoughts [5]. One of the irrational beliefs in schizophrenic patients is the existence of social anxiety. This disorder often reduces social relationships and social functioning in schizophrenic patients [8]. Existence of irrational beliefs reduces the power of perception and quality of life in schizophrenic patients [9]. Irrational beliefs are a set of false and unrealistic thoughts that affect people's behavior, emotions and perceptions.

Another irrational belief in these patients is the existence of paranoid thoughts that cause defects in interactions and reduce social relationships and isolation in affected patients [7]. These patients experience lower self-esteem due to the social stigma that they think they are subjected to [5]. Existence of severe religious beliefs in schizophrenic patients often prevent them from following treatment regimen [10]. Illusions and irrational beliefs in schizophrenic patients increase anxiety and severe psychosis in them [11]. Intensification of these beliefs sometimes leads to anger, rage, and

violence [12]. Existence of delusions, sensory errors and hallucination aggravate irrational beliefs and negatively affect patients' daily functioning [13]. It also causes stress in patients and caregivers [15,16]. Therefore, based on their clinical experiences, the researchers conducted this study to investigate the relationship between irrational beliefs and quality of life in schizophrenic patients.

## Materials and Methods

This descriptive correlation study was performed in 2019 on 125 patients with schizophrenia. The environment of this study was all medical centers with psychiatric wards and psychiatric clinics in Golestan province. Inclusion criteria were; being schizophrenic patients with confirmed diagnosis and medical records, not being at the acute phase of the disease at the time of data collection, and being diagnosed with the disease for at least two years. All study samples were under the supervision of a psychiatrist. The sample size in this study was calculated to be 124 patients based on the study with a correlation coefficient of 0.29 and the test power of 95% at a significance level of 0.05 [17]. Data collection tools in this study included demographic characteristics questionnaire (age, sex, history of disease, marital status), Irrational Belief questionnaire (IBQ) and quality of life questionnaire for schizophrenic patients.

The Irrational Belief Questionnaire (IBQ) was developed by Jones (1969) to measure irrational beliefs. This tool has 40 items that are scored based on a 5-point Likert scale. The score of this tool ranges from 40 to 200, so that the score of 40-80 indicate weak irrational belief, the score of 81-120 shows moderate irrational belief and the score of 121-200 refers to strong

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irrational belief [18]. The reliability of this questionnaire was confirmed in this study by Cronbach's alpha coefficient of 0.71 [19]. Also, the reliability of this instrument in the present study was confirmed by the retest method with a correlation coefficient of 0.89.

The Schizophrenic Quality Of Life Questionnaire (SQLS) was another tool used in this study for data collection. This questionnaire was designed by Wilkinson in 2000. It has 30 questions in 4-option Likert scale, with higher score indicating a lower quality of life [20,21]. The reliability of this questionnaire was confirmed in Iran with Cronbach's alpha coefficient of 0.83 [3]. The non-random sampling method was used in this study to collect samples from medical and counseling centers in Golestan province. Before collecting the data, the objectives of the study were explained to the participants while emphasizing on the safety and confidentiality of personal information. Written consent was also obtained from the participants and they were informed about the possibility of withdrawing from the study at any time.

## Results

The mean age of the participants was  $34.61 \pm 9.6$  years, with the

highest percentage of them 71.2% (89 people) being male and 28.8% (36 people) being women. In terms of marital status, 75.2% (94 people) of the participants were married and 24.8% (31 people) were single. In terms of occupation, 44% (55 people) of them were housewife, 26.4% (33 people) were employed, 24.8% (31 people) were unemployed and 4.8% (6 people) were students. Also, the duration of diagnosis among the participants was  $8.01 \pm 4.3$  years.

The score of irrational beliefs was  $126.96 \pm 14.12$  and the score of quality of life was  $91.91 \pm 92.91$ . Spearman correlation coefficient test did not show a significant relationship between these two variables ( $r=-0.04$ ,  $P=0.62$ ). Also, Kruskal-Wallis test did not show a significant difference between irrational beliefs and variables of job ( $P=0.57$ ), age ( $P=0.06$ ), and duration of diagnosis ( $P=0.48$ ). However, U Mann-Whitney test showed a significant difference between irrational beliefs and variable of gender ( $P=0.01$ ), so that irrational beliefs were higher in men compared to women (Table 1).

The Mann-Whitney test did not show a significant difference between the quality of life of schizophrenic patients and their gender ( $P=0.06$ ). Also, Kruskal-Wallis test did not show a significant difference between the quality of life of schizophrenic patients and the variables of age ( $P=0.61$ ), occupation ( $P=0.63$ ) and duration of diagnosis ( $P=0.31$ ) (Table 2).

	Demographic		Mean (SD)	P_value
Job	Employed	33	126.68(15.8)	0.57
	Unemployed	31	128.97(15.66)	
	Housewife	55	124.9(13.2)	
	Student	6	128.5(12.4)	
Age	Under 30	35	92.71(9.2)	0.69
	30-40	61	91.16(10.6)	
	Up40	29	92.5(7.8)	
Duration of illness	Under 5	26	124(12.43)	0.48
	5-10	81	127.77(14.45)	
	Up10	18	127.67(14.91)	
Sex	Men	89	128.84(14.5)	0.01

**Table 1.** The relationship between irrational beliefs and demographic characteristics of schizophrenic patients.

	Demographic		Mean (SD)	P_value
Job	Employed	33	92.87(9.8)	0.62
	Unemployed	31	90.45(6.33)	
	Housewife	55	91.82(10.92)	
	Student	6	95.16(5.3)	
Age	Under 30	35	92.71(9.2)	0.61
	30-40	61	91.16(10.6)	
	Up40	29	92.5(7.8)	
Duration of illness	Under 5	26	89.38(12.71)	0.31
	5-10	81	92.49(8.75)	
	Up10	18	93.05(7.94)	
Sex	Men	89	90.88(9.8)	0.06
	Female	36	94.5(8.51)	

**Table 2.** The relationship between quality of life and demographic characteristics of schizophrenic patients.

## Discussion

The results of this study showed a strong level of irrational beliefs among schizophrenic patients. It also showed a low quality of life among them. However, we found no significant relationship between irrational beliefs and quality of life among schizophrenic patients. This can be due to the impact of other factors such as economic and cultural factors and support systems used for patients with schizophrenia.

Studies show that patients with schizophrenia have irrational beliefs due to hallucinations and delusions [22,23]. Irrational beliefs in schizophrenic patients cause hallucinations and distress that increase anxiety in them [11]. Sometimes these beliefs cause anger, rage and harm to others. In a way, it disrupts the daily activities of patients [13]. Accordingly, studies show that the quality of life in schizophrenic patients is lower than normal people [24]. These patients experience many problems in the social and familial aspects of their quality of life [25]. One of the irrational beliefs that affect the quality of life of schizophrenic patients is obsessive thoughts [26]. Also, lack of adherence to medication along with the presence of suspicion has an important role in aggravating the disease and reducing the patients' daily functioning [27]. The presence of paranoid thoughts reduces interactions, negatively affects social relationships and exacerbates stress in schizophrenic patients [7].

The results of this study showed that the level of irrational beliefs was higher in men than in women. Studies show that the prevalence of schizophrenia is the same in men and women, but symptoms occur in men at younger age [4].

Also, since irrational beliefs such as positive and negative symptoms of the disease reduce the quality of life of schizophrenic patients, by reducing and controlling these symptoms, the quality of life of these patients can be improved to some extent. Therefore, paying attention to patients' symptoms and their timely treatment is of special importance. Moreover, psychological well-being and interventions will play an important role in reducing irrational beliefs and increasing the quality of life of schizophrenic patients [28]. Also, strengthening empathy along with family and social support has an important role in reducing irrational beliefs in schizophrenic patients [29]. The use of continuous care models and strengthening social support can increase the quality of life of these patients [30,31]. One of the ways to increase peace and mindfulness in patients is to strengthen religious thinking and spiritual support [32,33].

## Conclusion

The results of this study showed that the level of irrational beliefs in schizophrenic patients is high, but their quality of life is low. Our results did not show a significant relationship between irrational beliefs and quality of life. This lack of relationship can be due to the involvement of other cultural and social variables. Therefore, it is necessary for health officials to increase the quality of life of these patients by providing psychological interventions and improving the disease symptoms.

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