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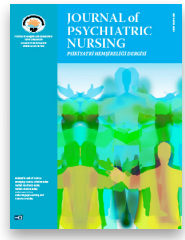

Original Article

Schizophrenia patients' family environment, internalized stigma and quality of life

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Abstract

Objectives: This descriptive study was performed to determine the family environment, internalized stigma and the quality of life of schizophrenia patients.

Methods: This study was performed between December 2011 and February 2012 with 51 outpatients and 51 patient relatives who were diagnosed with schizophrenia under DSM-IV-TR (American Psychiatric Association, 2000) and who were being monitored in clinical remission at the outpatient psychiatry clinic of Erzincan State Hospital. The study data were collected using a descriptive questionnaire, the Family Environment Scale (FES), the Internalized Stigma of Mental Illness Scale and the Abbreviated Turkish Version of the World Health Organization Quality of Life Questionnaire.

Results: This study found no significant difference between the mean scores of the patients and their relatives' interpersonal relationships (43.94±8.20, 27.10±5.59) and control (46.29±6.72, 26.57±4.30) in the family environment (p>0.05). The patients' mean score on the Internalized Stigma of Mental Illness Scale was 76.12±17.15. On its subscales, they were: alienation (15.63±4.41), stereotype endorsement (18.24±4.20), perceived discrimination (13.67±4.09), stigma resistance (12.35±3.6) and social withdrawal (16.24±5.21). and the patients' perceptions of quality of life were: physical (12.00±2.75), mental (11.11±3.02), social (9.15±3.72), and environmental (11.56±2.61).

Conclusion: This study found no difference between the patients and their relatives' perceptions of interpersonal relationships and control. The patients perceived internalized stigma above the moderate level. Their quality of life evaluations were at a moderate level. As their perceived internalized stigma level went up, their quality of life areas significantly decreased, and their perception of interpersonal relationships and control in the family environment increased significantly in the positive direction. It is important that psychiatric nurses assess the factors that affect patients' relapses and treatment such as family environment and internalized stigma. They should also develop and implement programs.

Keywords: Family environment; psychiatric nurse; schizophrenia, stigma, quality of life.

Schizophrenia is a chronic disease that leads ability loss with a set of symptoms including expansiveness, withdrawal and cognitive loss in attention, memory and executive function.[1] It is a serious psychological disorder that needs to be tackled on a people-to-people level. According to the Global Disease Burden study carried out in 2010 by the World Health Organization, schizophrenia is the disease that causes the most ability loss, and its point prevalence is between 0.21–0.7%.[2] In Turkey, a systematic study of psychosis epidemiology found that schizophrenia's frequency is 8.9 out of 1000 people, which is higher than that of other countries.[3]

Unhealthy family environment and internalized stigmatization may worsen the quality of life in schizophrenia disease. Family is an important milestone in the development of mental structure of a person and certain family environments can change the direction of psychiatric disorders.[4,5] Non-biological components such as unhealthy family communication, psychiatric and social difficulties occur in the development

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of schizophrenia, and communication problems with parents who have high risk children can increase the vulnerability.[5] A study done in China found that families of schizophrenic patients were more conflict prone and inconsistent, and they thought that intellectual and entertaining activities were not sufficient than the control group.[6]

The effect of schizophrenia may narrow patients' environment by negatively affecting other people's approach towards them. Internalization or self-stigmatization is the adoption of stigmatizing opinions such as dangerousness and inadequacy by individuals with psychiatric disorders. Internalized stigmatization obstructs compliance to treatment and recovery.[7,8] A study showed that highly internalized stigmatization, low levels of self-respect and weak insight were the factors that affected compliance to treatment negatively.[9] Another study found that schizophrenic patients with high functionality, low perception of internalized stigmatization and readiness to change their behavior were better at compliance to treatment.[10]

Studies have indicated that promoting quality of life was an important indicator in amelioration of symptoms and functional recovery and also a valid and beneficial outcome criterion.[11,12] Schizophrenics' distortions in important functionality fields such as work, interpersonal communication and self-care reduce quality of life.[13] The subjective determinants of quality of life are clinical, sociodemographic, mental and social. Mental-social situations and treatment programs for depression can improve the quality of life of patients.[14] A study of the quality of life of schizophrenia and mood disorder patients found that disease factors such as mental problems, family burden, suicide attempts, attitude about self-care giver and living far from home were the most important determiners of quality of life, and family factors were more significant than social factors in mental symptom level.[15]

The main aim of schizophrenia treatment is to help patients to recover and improve their quality of life by reducing symptoms and preventing relapses.[16] Cooperation between the patient, family and medical staff increases its efficacy. Psychiatric nurses must consider the factors that affect recovery and quality of life such as family environment and internalized stigmatization. Patients' quality of life can be boosted by increasing their self-esteem, social abilities and decision-making ability with culturally suitable and evidence-based practices. In the light of these information, this study was conducted to determine family environment, internalized stigmatization and quality of life. It sought to answer these questions:

1. What are the family environment perception levels of the schizophrenic patients and the patient relatives?
2. Is there a difference between the family environment perception levels of the schizophrenic patients and the patient relatives?
3. In what level does the schizophrenic patients perceive the internalized stigmatization and quality of life?
4. Is there a correlation between patients' family environment, internalized stigmatization and quality of life scores?

Materials and Method

Population and Sample

This study is descriptive research. It was conducted at the psychiatry clinic of Erzincan State Hospital between December 2011 and February 2012. The population of the study were 64 outpatients who were diagnosed with schizophrenia according to criteria of DSM-IV-TR (American Psychiatric Association, 2000) in the past year (December 2010-December 2011). Sample selection was not performed, and 51 patients who met the research criteria and 51 patient relatives were included in the study for family environment assessment because the perceptions of patient relatives are important.

Inclusion and Exclusion Criteria for Patients

According to the criteria of DSM-IV-TR, the inclusion criteria included being an outpatient diagnosed with schizophrenia, being in clinical remission, being between 18 and 65 years old and voluntary participation in the study. The exclusion criteria included being diagnosed with any physical disorder (hearing or speech disorders), neurological disorder and being mentally retarded.

Inclusion and Exclusion Criteria for Patient Relatives

The inclusion criteria included living with a schizophrenic patient at least 1 year, being between 18 and 65 years old and voluntary participation in the study. The exclusion criteria included any physical (hearing, speech disorder) and mental (psychotic disorder, mentally retarded) obstacle.

Process

The data of the study were collected by the first author at the psychiatry polyclinic of Erzincan State Hospital in 25–30 minutes. The interviews were done face-to-face with the patients' relatives in a suitable room.

Data Collection Tools

The Descriptive Form for Patients: This form has 10 questions, 7 about the sociodemographic features of the patients (age, gender, marital status, education level, working status, who they live with and economic status) and about the features of the disease (duration of the disease, number of hospitalizations, disease/treatment information status).

The Descriptive Form for Patient Relatives: This form has 8 questions about the patient relatives' sociodemographic features (age, gender, marital status, education level, occupation, degree of closeness with the patient, their roles and support status).

The Family Environment Scale (FES): This scale was developed by Fowler (1982), and the validity and reliability study of the scale was done by Usluer (1989).[17] It assesses the mental and social perception of the family environment and can

be used for patients and family members. The scale has 26 items in two subscales: relationships among individuals and control. The highest possible scores for relationships among individuals and control are 64 and 40, respectively. Subscale scores indicate perceived levels of relationships among individuals and control. The Cronbach's alpha values were found to be 0.82 and 0.74, respectively, for the subscales in the internal consistency calculation, and 0.83 and 0.67 in this study.[18]

The Internalized Stigma of Mental Disorders Scale (ISMI): This scale was developed by Ritsher et al. (2003). Its validity and reliability study was done by Ersoy and Varan (2007).[19] It assesses internalized stigmatization and consists of 29 items in five subscales: alienation, stereotype endorsement, perceived discrimination, social withdrawal and stigma resistance. Total scores range from 29 to 116. High scores indicate more internalized stigmatization. In the validity and reliability study, the Cronbach's alpha coefficient of the subscales were 0.84, 0.71, 0.87, 0.85, 0.63, respectively. The entire scale's internal consistency coefficient was 0.93. This study found the subscale coefficients to be 0.69, 0.58, 0.75, 0.86, 0.48, respectively, and total alpha value was 0.90 due to the difference of alpha values.

The World Health Organization Quality of Life-Short Form-Turkish Version (WHOQOL-BREF-TR): This scale was developed by the WHO, and its validity and reliability was done by Eser et al. (1999).[21] It assesses mental, social and environmental well-being and consists of 26 questions. The environment-TR subscale score is used in the Turkish version. Subscale scores range from 4 to 20, with higher scores indicating higher quality of life. In the validity and reliability study, the Cronbach's alpha coefficients of the subscales were 0.83, 0.66, 0.53 and 0.73, respectively.[20] This study found them to be 0.72, 0.55, 0.59 and 0.60, respectively.

Ethical Principles

Erzincan State Hospital and the Erzincan Local Health Authority gave written consent and ethical approval was obtained from Erzincan University Ethics Committee of Health Sciences (dated 12/7/2011 and numbered 4/1). In addition, verbal consent was obtained after explaining the purpose, method and contribution of the research to the patients and patient relatives who met the study inclusion criteria.

Statistical Analysis

SPSS 22.0 software was used for the statistical analysis, and the threshold for statistical significance was $p<0.05$. The descriptive characteristics were indicated as numbers, percentages and mean values. The t-test was used to assess the difference between the mean scores of the patient and patient relatives, and Pearson's correlation analysis was used to determine the correlations between scales.

Results

The Descriptive and Disease-related Features of the Patients and the Patient Relatives

Of the patients in the study, 70.6% were male, 62.8% were single, and 35.3% had completed primary school. Of them, 31.4% had temporary jobs, 47.1% had less income than their expenses, and 58.8% were living with their parents. Of the patients, 45% stated that they had little information about their disease. The mean duration of the disease was 16.08±10.87 years, the mean number of hospitalizations was 5.04±7.22, and the patients' mean age was 38.61±11.29 (Table 1).

Table 1. The distribution of the patients' descriptive characteristics (n=51)

Descriptive characteristics	n	%	Mean±SD
Gender			
Female	15	29.4	
Male	36	70.6	
Marital status			
Single	32	62.8	
Married	12	23.5	
Widow/divorced	7	13.7	
Education level			
Illiterate	13	25.5	
Primary school	18	35.3	
Middle school	9	17.6	
High school	11	21.6	
Working status			
Never worked	14	27.5	
Not working	9	17.6	
Worked in temporary jobs	16	31.4	
Working	12	23.5	
Income level perception			
Income less than expenses	24	47.1	
Income equal to expenses	21	41.2	
Income greater than expenses	6	11.7	
People he/she lives with			
Alone	2	3.9	
Mother-father	30	58.8	
Spouse and children	13	25.5	
Another relative (sibling or cousin)	6	11.8	
Information about the treatment of the disease			
No	20	39.2	
Yes-a little bit	23	45.1	
Yes-moderate	8	15.7	
Duration of illness (years)			16.08±10.87
Number of hospitalizations			5.04±7.22
Age (year)			38.61±11.29

SD: Standard deviation.

Of the patient relatives, 60.8% were female, 72.6% were married, and 39.2% had completed primary school. Of them, 51% were housewives and mothers of the patients, 49% were caregivers of the patient and other family members. Of the patient relatives, 45.1% had no support. Their mean age was 48.37±14.68 (Table 2).

The Patients and Patient Relatives' Mean Scores on the Family Environment Scale

Among subscale of FES, patients' interpersonal relations and control mean scores were 43.94±8.20 and 27.10±5.59, respectively, and the patient relatives' interpersonal relations and control mean scores were 46.29±6.72 and 26.57±4.30, respectively.

Table 2. Distribution of the descriptive characteristics of the patient relatives (n=51)

Descriptive characteristics	n	%
Gender		
Female	31	60.8
Male	20	39.2
Marital status		
Single	7	13.7
Married	37	72.6
Widow	7	13.7
Education level		
Illiterate	19	37.3
Primary school	20	39.2
Middle school	4	7.8
High school	8	15.7
Profession		
Not working	5	9.8
Housewife	26	51.0
Retired	6	11.8
Industrial worker	10	19.6
Office worker	4	7.8
Degree of closeness with the patient		
Spouse	9	17.7
Mother	26	51.0
Children	4	7.8
Relative	4	7.8
Sibling	8	15.7
Role		
Only patient	24	47.0
Family and other family member	25	49.0
Patient and his/her disease	2	4.0
Support status		
No	23	45.1
Other family members/environment	10	19.6
Institution/association/foundation	18	35.3
Yaş (yıl), (Mean±SD)	48.37±14.68	

SD: Standard deviation.

No significant difference was found between the mean interpersonal relations and control scores in family environment of the patients and the patient relatives.

Internalized Stigmatization and Quality of Life Levels of Patients

The patients' ISMI subscale mean scores for alienation, stereotype endorsement, perceived discrimination, stigma resistance and social withdrawal were 15.63±4.41, 18.24±4.20, 13.67±4.09, 12.35±3.36 and 16.24±5.21, respectively. The ISMI mean score was 76.12±17.15. The patients perceived an internalized stigmatization above a moderate level in all the subscales. The quality of life physical, mental, social and environmental subscale mean scores were 12.00±2.75, 11.11±3.02, 9.15±3.72 and 11.56±2.61, respectively. It was found that quality of life was at a moderate level. The physical subscale mean score was highest, and the social subscale mean score was the lowest (Table 5).

The Patients' Family Environment, Internalized Stigmatization and Quality of Life Relations

As Table 5 shows, the correlation between ISMI alienation and the WHOQOL-BREF-TR physical, mental and environmental subscale mean score was found to be weak and negative

Table 3. FES mean score distribution of the patients and patient relatives (n=51)

FES	Obtainable score interval	Obtained score interval	Mean±SD
Patient			
Interpersonal relations	16–64	22–64	43.94±8.20
Control	10–40	13–40	27.10±5.59
Patient relative			
Interpersonal relations	16–64	23–60	46.29±6.72
Control	10–40	13–39	26.57±4.30

FES: Family Environment Scale; SD: Standard deviation.

Table 4. Comparison of FES mean score distribution of the patients and patient relatives (n=51)

	Family Environment Scale	
	Interpersonal relations Mean±SD	Control Mean±SD
Patient	43.94±8.20	27.10±5.59
Patient relative	46.29±6.72	26.57±4.30
Test and importance	t=1.827 p=.071	t=-.481 p=.631

FES: Family Environment Scale; SD: Standard deviation.

Table 5. Distribution of the patients' ISMI and WHOQOL-BREF-TR mean scores (n=51)

ISMIS	Score Range of the Scale	Obtained Score Range on the Scale	Mean±SD
Yabancılaşma	6–24	7–24	15.63±4.41
Kalıp yargıların onaylanması	7–28	8–26	18.24±4.20
Algılanan ayrımcılık	5–20	5–20	13.67±4.09
Damgalanmaya karşı direnç	5–20	5–19	12.35±3.36
Sosyal geri çekilme	6–24	6–24	16.24±5.21
RHİDÖ toplam	29–116	36–105	76.12±17.15
WHOQOL-BREF-TR			
Bedensel		4–17	12.00±2.75
Ruhsal	4–20	4–16	11.11±3.02
Sosyal		4–16	9.15±3.72
Çevre-TR		6–16	11.56±2.61

ISMI: Internalized Stigma of Mental Disorders Scale, WHOQOL-BREF-TR: The World Health Organization Quality of Life-Short Form-Turkish Version; SD: Standard deviation.

(p<0.01, p<0.05), and a weak positive correlation was found with the control subscale (p<0.05). A weak negative correlation was found between stereotype endorsement and the physical and mental subscales (p<0.05), and the correlation with control subscale was weak and positive (p<0.05). The correlation between social withdrawal and stigmatization resistance and the physical, mental, social and environmental subscales was found to be weak and negative (p<0.01, p<0.05). A weak negative correlation was found between total score on the ISMI and the physical, social and environmental subscales (p<0.01, p<0.05), and a moderate negative correlation with the mental subscale and a weak positive correlation with the control subscale were found (p<0.01, p<0.05) (Table 6).

Discussion

A positive family environment is protective for individuals with psychosis. It helps to reduce symptoms, increase social functionality and mitigate the effects of having difficulties. Difficulties in family environments with conflicts, low protectiveness level and specifically violence, negligence and aggressiveness cause poor health outcomes and allostatic load. Within this scope, nonfunctional family environments have negative effects on mental health and increases the risk of being independent from family history.[22,23] Positive family characteristics affect treatment positively, and determinants of positive family relationships such as sincerity or positive efforts by family members for patients with psychosis reduce symptoms of the disease and boost social functionality.[24] This study found that

Tablo 6. The correlation between the patients' mean scores on the WHOQOL-BREF-TR, FES and ISMI (n=51)

	WHOOQ-BREF-TR								FES			
	Physical		Mental		Social		Environmental		Interpersonal relations		Control	
Scales	r	p	r	p	r	p	r	p	r	p	r	p
ISMIS												
Alienation	-.406	.003**	-.448	.001**	-.230	.105	-.332	.017*	.055	.703	.355	.011
Stereotype endorsement	-.294	.036*	-.320	.022*	-.239	.091	-.271	.055	.054	.708	.377	.006**
Perceived discrimination	-.290	.039*	-.300	.032*	-.307	.029*	-.213	.134	.120	.400	.358	.010*
Social withdrawal	-.402	.003**	-.492	.001**	-.354	.011*	-.354	.011*	-.049*	.731	.184	.197
Stigma resistance	-.324	.020*	-.463	.001**	-.376	.006**	-.355	.011*	-.180	.206	-.245	.083
Total ISMI	-.432	.002**	-.505	.001**	-.372	.007**	-.379	.006**	.006**	.968	.277	.049*
FES												
Interpersonal relations	-.016	.913	.222	.118	.072	.615	.247	.081	1	–	.501	.001**
Control	-.201	.158	-.029	.839	-.116	.418	-.019	.893	.501	.001**	1	–

FES: Family Environment Scale, ISMI: Internalized Stigma of Mental Disorders Scale, WHOQOL-BREF-TR: The World Health Organization Quality of Life-Short Form-Turkish Version.
*p<0.05; **p<0.01.

patients perceived interpersonal relations more negatively and sensed more control than patient relatives, but the difference was not significant. This answered the first two research questions. Another study conducted with patients diagnosed with schizophrenia and mood disorders and their relatives demonstrated that patient relatives were more positive and sensed more control than patient relatives, but the difference was not significant.[25] Studies carried out in Spain and the US with schizophrenic patients found a significant correlation between the FES scores of patients and patient relatives.[4,26] Another study showed that patients had more positive interpersonal relationship than patient relatives, but control perception levels were the same.[27] Yet another study found that distorted family functionality affected the ability to express emotion expression,[28] the family and social support perceived by patients.[23] Patients were able to deal with difficulties easily when they sensed that their families were more interested in them, attached to each other, organized, independent and less disturbed by conflict. A study carried out in Egypt found that excessive symptoms, male gender, noncompliance with treatment, history of violence and perceived family criticism had a relation with violent behaviors. Easing family criticism and developing healthy family communication were important ways of reducing violence.[29] This study's results suggest that patients' family environment perception may have a relation with violence and characteristics related to disease.

Psychological mechanisms such as stigmatization, self-respect and reduced self-efficacy, deformity, hopeless and depression can affect compliance to treatment and reduce the likelihood of objectives such as living independently.[30] In this study, patients perceived internalized stigmatization above a moderate level according to their lowest and highest ISMI scores. The studies by Tel and Ertekin Pınar,[31] Coşkun and Güven Caymaz found that total ISMI and subscale scores were low, and patients perceived moderately high levels of internalized stigmatization.[32] A study carried out with forensic psychiatry patients found that patients diagnosed with psychotic disorders and high social withdrawal had higher self-stigmatization perception.[33] According to a study done in Ethiopia, approximately half of the patients perceived moderately high levels of stigmatization, and living in a rural area, being single and specific psychotic symptoms were related with high level of internalized stigmatization. A study conducted in China found that schizophrenic patients' ISMI score had a significant positive correlation with self-esteem and experienced discrimination scores.[34]

Another study found that most schizophrenic patients had low resistance to stigmatization, and a statistically significant relationship between living in a rural area, difficulty in adapting to anti-psychotic medicine, high levels of internalized stigmatization, alienation and stigmatization resistance to social alienation.[35]

Quality of life is a treating measure but affects schizophrenic patients negatively in terms of pharmacological, psychological and social treatment, recovery and health care costs in the long term. Patients' subjective quality of life is an important determinant in relapses and suicide attempt risks. In this study considering the lowest and highest values obtained from the scale, the patients' physical, mental, social, and environmental quality of life perceptions were at a moderate level. Physical scale perception was the highest, and social field perception was the lowest.[36,37] These findings answer this study's third research question. According to Güneş[38] and Doğanavşargil,[39] patients' perception of quality of life, environmental scale and social scale were generally at the moderate, highest and lowest levels, respectively. A study conducted by Rayan and Obiedate (2017)[40] in Jordan found that the quality of life perception levels of schizophrenic patients were poor. Another study showed that all subscale scores of psychiatric patients' quality of life were lower than those of a healthy control group. The schizophrenic patients had less social relation satisfaction than the schizoaffective or mood disorder patients, and their quality of life was affected by mental-social factors rather than psychopathological symptoms.[41] The physical subscale assesses daily functions such as vitality, pain, sleep and rest. In this study, the patients stated that they had high physical subscale perception, with outpatient recovered to a certain level. Most outpatients (56.9%, n=29) did not experience side effects, and they perceived better vitality and energy.

This study found that the higher internalized stigmatization levels, the lower quality of life scales became and a positive significant increase in interpersonal relations and control perceptions. These findings answer this study's fourth research question. The stigmatizing effect of the disease may narrow patient's environment due to other people's negative approaches towards them.[13] Additionally, patients whose necessities were not met due to deficiencies in social communication experience reduced quality of life. They feel alone, blocked and isolated because of not establishing relationships with other deprived patients.[42] Many studies have observed stigmatization perception in schizophrenic patients. The higher their stigmatization level, the lower their subjective quality of life was, and it has been shown that low life satisfaction is an important aspect of subjective stigmatization.[16,39,43,44] Studies done in China and Jordan have reported that the stigmatization and quality of life perceptions of schizophrenic patients were correlated negatively.[40,45] Internalization of stigmatization and avoiding stigmatization made patients uncomfortable and reduced their quality of life. Due to low self-esteem, internalized stigmatization affects objective quality of life negatively by increasing symptoms and decreasing social functionality.[46] A study of 170 patients with schizophrenia and schizoaffective disorder found that the subjective quality of life and drug compliance of patients with high stigmatization levels were significantly low.[47] According to a study conducted with a multi-dimensional question form, patients who perceive high quality of life had low positive and negative syndrome, and their scores on the Calgary Depression Scale for Schizophrenia and the Global Assessment of

Functioning Scale were low and high, respectively.[48] A study comparing quality of life assessments by patients (subjective) and assessors (objective) with patients diagnosed with schizophrenia or a related disorder (schizo-affective, paranoid disorders) was conducted.[12] It found that patients with depressive symptoms and patients with low insight perceived their quality of life as low and high, respectively, according to subjective assessment. This result is important in terms of measuring and interpreting quality of life in the research environment. The results of insight deficiency relate to inadequate compliance to treatment and social functionality. However, high insight negatively affects the hope, self-esteem and quality of life of individuals with serious mental disorders. They showed indications of depression and attempted suicide. It was indicated that these results were related to internalized stigmatization.[49–51] This study suggests that positively correlated internalized stigmatization perception in patients with interpersonal relations and control perceptions may have a correlation with insight.

Conclusion

This study found no difference between control perceptions and interpersonal relations in family environment of patients and patient relatives. The patients perceived interpersonal relations at above a moderate level. Their quality of life was moderate. The higher their internalized stigmatization levels, the more their quality of life significantly decreased while their interpersonal relations and control perceptions increased positively. Based on these results, it can be recommended that health care staff must gain awareness and maintain it since their opinions, attitude and behaviors are important to the quality of the service provided and the behaviors and attitudes of society towards these patients. Providing education about the inaccurate information and rumors about individuals who have mental disorders through public service advertisements and structured educational programs is an important initiative in the fight against internalized stigmatization. Patients' quality of life must be boosted using society-based educational and support programs, arranging social and education support groups and encouraging patient participation.

Limitations and Generalization of the Study

In this study, family environment, internalized stigmatization and variables particular to the disease that can affect quality of life perception were not controlled well enough. Despite this limitation, the sample size was kept large for Erzincan, and these findings can be generalized to the study group.

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References

1. Draper ML, Stutes DS, Maples NJ, Velligan DI. Cognitive adaptation training for outpatients with schizophrenia. J Clin Psychol 2009;65:842–53.
2. Öztürk MO, Uluşahin A. Ruh Sağlığı ve Bozuklukları. 14th ed. Ankara: Nobel Tıp Kitabevleri; 2016. p. 189.
3. Binbay T, Ulaş H, Alptekin K. Şizofreni Epidemiyolojisine Türkiye'den Katkı Yapmak: Nasıl ve Neden? J Clin Psy 2010;13:9–15.
4. Vidal ML, Cortés MJ, Valero J, Gutiérrez-Zotes A, et al. Family environment and expressed emotion in patients with schizophrenia or other psychoses and in their first-degree relatives. Actas Esp Psiquiatr 2008;36:271–6.
5. Tsuang M. Schizophrenia: genes and environment. Biol Psychiatry 2000;47:210–20.
6. Phillips MR, West CL, Shen Q, Zheng Y. Comparison of schizophrenic patients' families and normal families in China, using Chinese versions of FACES-II and the Family Environment Scales. Fam Process 1998;37:95–106.
7. Çam O, Çuhadar D. Stigma Process and Internalized Stigma among Individuals with Mental Illness. J Psy Nurs 2011;2:136–40.
8. Fung KM, Tsang HW, Cheung WM. Randomized controlled trial of the self-stigma reduction program among individuals with schizophrenia. Psychiatry Res 2011;189:208–14.
9. Fung KM, Tsang HW, Corrigan PW. Self-stigma of people with schizophrenia as predictor of their adherence to psychosocial treatment. Psychiatr Rehabil J 2008;32:95–104.
10. Tsang HW, Fung KM, Chung RC. Self-stigma and stages of change as predictors of treatment adherence of individuals with schizophrenia. Psychiatry Res 2010;180:10–5.
11. Karow A, Wittmann L, Schöttle D, Schäfer I, et al. The assessment of quality of life in clinical practice in patients with schizophrenia. Dialogues Clin Neurosci 2014;16:185–95.
12. Hayhurst KP, Massie JA, Dunn G, Lewis SW, et al. Validity of subjective versus objective quality of life assessment in people with schizophrenia. BMC Psychiatry 2014;14:365.
13. Yıldız M. Şizofreni Hastaları için Ruhsal Toplumsal Beceri Eğitimi. 1. baskı. Ankara: Türkiye Sosyal Psikiyatri Derneği Yayınları; 2011. p. 3–20.
14. Chou CY, Ma MC, Yang TT. Determinants of subjective health-related quality of life (HRQoL) for patients with schizophrenia. Schizophr Res 2014;154:83–8.
15. Huang RR, Chen YS, Chen CC, Chou FH, et al. Quality of life and its associated factors among patients with two common types of chronic mental illness living in Kaohsiung City. Psychiatry Clin Neurosci 2012;66:482–90.
16. Katschnig H. Schizophrenia and quality of life. Acta Psychiatr Scand Suppl 2000:33–7.
17. Usluer S. Aile Ortamı Ölçeği Türkçe Formunun Geçerlilik ve Güvenilirliği. İstanbul: Boğaziçi Üniversitesi; 1989.
18. Öner N. Türkiye'de Kullanılan Psikolojik Testler. 3. Baskı. İstanbul: Boğaziçi Üniversitesi Yayınları; 1997.

19. Ersoy MA, Varan A. Ruhsal Hastalıklarda İçselleştirilmiş Damgalanma Ölçeği Türkçe Formu'nun Güvenilirlik ve Geçerlik Çalışması. Türk Psikiyatri Dergisi 2007;18:163–71.
20. Aydemir Ö, Köroğlu E. Psikiyatride Kullanılan Klinik Ölçekler. Ankara: Hekimler Yayın Birliği; 2007.
21. Eser SY, Fidaner H, Fidaner C, Elbi H, et al. Measure of quality of life WHOQOL- 100 and WHOQOL-Bref. 3P Dergisi 1999;7:5–13.
22. Walder DJ, Faraone SV, Glatt SJ, Tsuang MT, et al. Genetic liability, prenatal health, stress and family environment: risk factors in the Harvard Adolescent Family High Risk for schizophrenia study. Schizophr Res 2014;157:142–8.
23. Gretchen-Doorly D, Detore NR, Ventura J, Hellemann G, et al. Relationships between perceptions of the family environment and of negative life events in recent-onset schizophrenia patients. Schizophr Res 2011;127:266–7.
24. O'Brien MP, Gordon JL, Bearden CE, Lopez SR, et al. Positive family environment predicts improvement in symptoms and social functioning among adolescents at imminent risk for onset of psychosis. Schizophr Res 2006;81:269–75.
25. Dündar D. Duygu durum bozukluğu ve psikotik hastalarda aile ortamı ve bu ortamın hastaneye yatış sıklığına etkisi. [Yayınlanmamış yüksek lisans tezi]. İstanbul: İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü; 1999.
26. Gurak KK. Ethnicity, Perceptions of Family Environment, and Schizophrenia Symptoms. Available at: https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=1504&context=oa_theses. Accessed Apr 10, 2018.
27. Tüzer V, Zincir S, Başterzi AD, et al. Şizofreni hastalarında aile ortamı ve duygu dışavurumunun değerlendirilmesi. Klinik Psikiyatri 2003;6:198–203.
28. Ebrinç S, Çetin M, Başoğlu C, Ağargün MY, et al. Şizofren hasta ve ailelerinde aile işlevselliği, sosyal destek ve duygu dışavurumunun incelenmesi. Anadolu Psikiyatri Derg 2001;2:5–14.
29. Sehlo MG, Youssef UM, Hussein RA, Elgohary HM. The relationship of perceived family criticism and other risk factors to violence among patients with schizophrenia. Middle East Current Psychiatry 2015;22:70–7.
30. Assefa D, Shibre T, Asher L, Fekadu A. Internalized stigma among patients with schizophrenia in Ethiopia: a cross-sectional facility-based study. BMC Psychiatry 2012;12:239.
31. Tel H, Ertekin Pınar Ş. Internalized Stigma and Self-Esteem in Outpatients with Psychiatric Illness. J Psy Nurs 2012;3:61–6.
32. Coşkun S, Güven Caymaz N. Comparison of Internalized Stigma Level Among Patients Attending a Public Versus Private Psychiatric Institution. J Psy Nurs 2012;3:121–8.
33. Baysan Arabacı L, Yedikardaşlar Başoğul C, Büyükbayram A. Adli psikiyatri hastalarının içselleştirilmiş damgalanma ve sosyal işlevsellik düzeyleri. Anadolu Psikiyatri Derg 2015;16:113–21.
34. Li J, Guo YB, Huang YG, Liu JW, Chen W, Zhang XY, et al. Stigma and discrimination experienced by people with schizophrenia living in the community in Guangzhou, China. Psychiatry Res 2017;255:225–31.
35. Bifftu BB, Dachew BA, Tiruneh BT. Stigma resistance among people with schizophrenia at Amanuel Mental Specialized Hospital Addis Ababa, Ethiopia: a cross-sectional institution based study. BMC Psychiatry 2014;14:259.
36. Chien WT, Leung SF, Yeung FK, Wong WK. Current approaches to treatments for schizophrenia spectrum disorders, part II: psychosocial interventions and patient-focused perspectives in psychiatric care. Neuropsychiatr Dis Treat 2013;9:1463–81.
37. Mihanović M, Restek-Petrović B, Bogović A, Ivezić E, et al. Quality of life of patients with schizophrenia treated in foster home care and in outpatient treatment. Neuropsychiatr Dis Treat 2015;11:585–95.
38. Güneş D. Şizofreni hastalarının yaşam kalitesinin ve sosyal işlevselliğinin objektif ve subjektif değerlendirmesi. [Psikiyatri Uzmanlık Tezi] İstanbul: 2010.
39. Doğanavşargil Ö. Şizofreni ve depresyonda içselleştirilmiş damgalanma ve yaşam kalitesi. [Yayınlanmamış yüksek lisans tezi] İzmir: Dokuz Eylül Üniversitesi Sağlık Bilimleri Enstitüsü; 2009.
40. Rayan A, Obiedate K. The Correlates of Quality of Life Among Jordanian Patients With Schizophrenia. J Am Psychiatr Nurses Assoc 2017;23:404–13.
41. Ritsner M, Modai I, Endicott J, Rivkin O, et al. Differences in quality of life domains and psychopathologic and psychosocial factors in psychiatric patients. J Clin Psychiatry 2000;61:880–9.
42. Liberman RP. Yetiyitiminden İyileşmeye. Psikiyatrik İyileştirim El Kitabı. In: Yıldız M, çev ed. Ankara: Türkiye Sosyal Psikiyatri Derneği; 2011. p. 278-310.
43. Switaj P, Wciórka J, Smolarska-Switaj J, Grygiel P. Extent and predictors of stigma experienced by patients with schizophrenia. Eur Psychiatry 2009;24:513–20.
44. El-Badri S, Mellsop G. Stigma and quality of life as experienced by people with mental illness. Australas Psychiatry 2007;15:195–200.
45. Cai C, Yu L. Quality of Life in Patients With Schizophrenia in China: Relationships Among Demographic Characteristics, Psychosocial Variables, and Symptom Severity. J Psychosoc Nurs Ment Health Serv 2017;55:48–54.
46. Doğanavşargil Baysal GÖ. Stigmatization and Mental Health. Archives Medical Review Journal 2013;22:239–51.
47. Lien YJ, Chang HA, Kao YC, Tzeng NS, et al. The impact of cognitive insight, self-stigma, and medication compliance on the quality of life in patients with schizophrenia. Eur Arch Psychiatry Clin Neurosci 2018;268:27–38.
48. Michel P, Auquier P, Baumstarck K, Loundou A, et al. How to interpret multidimensional quality of life questionnaires for patients with schizophrenia? Qual Life Res 2015;24:2483–92.
49. Hasson-Ohayon I, Ehrlich-Ben Or S, Vahab K, Amiaz R, et al. Insight into mental illness and self-stigma: the mediating role of shame proneness. Psychiatry Res 2012;200:802–6.
50. Ampalam P, Deepthi R, Vadaparty P. Schizophrenia - insight, depression: a correlation study. Indian J Psychol Med 2012;34:44–8.
51. Cavelti M, Kvrgic S, Beck EM, Rüsch N, et al. Self-stigma and its relationship with insight, demoralization, and clinical outcome among people with schizophrenia spectrum disorders. Compr Psychiatry 2012;53:468–79.

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