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IDENTIFICATION OF THE BELIEFS TOWARD STIGMATIZATION AND MENTAL ILLNESS AMONG RELATIVES OF SCHIZOPHRENIA PATIENTS

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Keywords

Stigmatization, Schizophrenia, Patient Relative, Belief

ABSTRACT

Stigmatization is an important problem that causes negative results for schizophrenia patients and their relatives. This study aims to identify beliefs toward stigmatization and mental illness among relatives of schizophrenia patients followed up in community mental health centers. The target population of the study was relatives of schizophrenia patients who were registered in Hatay Community Mental Health Centers (CMHC). The sample was relatives of schizophrenia patients who attended CMHCs actively (n=170). Data were collected through the Socio-demographic Form, the Stigmatization Scale for Relatives of Schizophrenia Patients (SSRSP), and Beliefs toward Mental Illnesses Scale (BMIS) in the community mental health centers or at home visits.SSRSP total mean score of the patient relatives involved in the study was 30,64±8,35, and BMIS total mean score was 71.81±17.08. Significant differences were found in the SSRSP according to receiving help apart from the medical treatment, patient relatives' feeling differences in people's attitudes in the social activities they attended with the patient, patients' frequency of attending the CMHC, and patients' participation in social activities apart from the CMHC (p<0,05). A medium-level, positive, and significant relationship was found between SSRSP total and BMIS total scores (r=0,464) (p<0,05). The results of this study showed that patient relatives were stigmatized, and they had negative beliefs toward mental illness. Based on the results of the study, it is recommended to initiate activities to be conducted by health professionals working in CMHCs and other related institutions for improving attitudes about schizophrenia patients and their relatives and eliminating stigmatization. Through the identification of stigmatization in schizophrenia patients and their relatives and beliefs of patient relatives toward mental illness, this study contributes to patient families and society by helping the CMHC team to organize training on mental illness for these people.

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INTRODUCTION

Schizophrenia is one of the most important mental health problems that cause disability, affect the individual's quality of life and social functioning, and have negative effects on patient relatives and society[1]. Care of schizophrenia patients is generally performed by family members[2]. Schizophrenia causes various difficulties not only for patients themselves but also for their families[3]. The psychological state caused by the environmental, economic, social, and emotional problems due to caring responsibilities is considered the family's burden. Stigmatization is the primary environmental problem[4].

Stigmatization is defined as referring individuals in a way to decrease their respectability as it excludes them from the criteria considered normal in

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the environments where they live. Due to stigmatization, a stigmatized individual is attributed to a characteristic that results in feeling embarrassed and disliked by others and experiencing disapproval and shyness[5,6]. Psychiatric patients are one of the groups affected by stigmatization the most[7]. As a result of stigmatization, psychiatric patients and their relatives are isolated from society and do not demonstrate health-seeking behaviors[8,9]. These individuals do not apply health institutions with the fear of being stigmatized or being excluded from society, which causes a big obstacle for maintaining their treatment. In addition to the problems with the treatment, there could also be serious problems with individuals' social relationships[10,11].

Reasons for the stigmatization of psychiatric patients by the society include seeing individuals with a psychiatric disorder different, thinking that they are violent due to this difference, blaming them, and not being able to make sense of their behaviors[12,13]. Being afraid of an individual with mental illness is the primary factor that causes stigmatization[13]. Stigmatization affects psychiatric patients both internally and externally[13]; external stigmatization includes the rejection of the individual with mental illness by their relatives, friends, and employers[15]. In such a case, not only individuals with mental illness but also their family members are stigmatized[16]. Families are considered responsible for the illness and thus blamed by society. These kinds of misbeliefs and the accompanying stigmatizing approach cause family members to feel bad, withdraw into themselves, and decrease their interactions and social activities with the environment; in fact, one of the family members may lose his/her job in some cases[7,17]. People in society treat families of psychiatric patients as if this situation was a disgraceful offense and demonstrate stigmatizing attitudes such as “being the father or mother of an individual with a psychiatric illness”; families fight with these kinds of problems. Due to these kinds of different behaviors demonstrated by society, families hide the illness from society[16]. Mental health professionals are reported to have important roles in fighting with stigmatization[17]. It is reported that societies should be informed about mental illness, individuals with mental illness should be provided with treatments and given moral support and attention in this process so that they can be reintegrated into society and negative perceptions about mental illness can be eliminated[18]. All health professionals’ attitudes towards mental illness are of importance for the prevention of stigmatization. Therefore, it is important to identify the attitudes of all health professionals and psychiatric nurses about this issue and evaluate how individuals with mental illness are affected by these attitudes[12,19]. Family education about schizophrenia and information and consultancy services to be given to patients and their relatives about mental illness and decreasing stigmatization in community mental health centers are considered to help decrease negative thoughts about mental illness and stigmatization. The results of a study show that studies to be conducted for preventing stigmatization about individuals with mental illness should focus on family psychoeducation[20].

The results of this study are considered to guide community mental health workers in providing necessary services for decreasing stigmatization of relatives of individuals with schizophrenia. The study aims to identify the beliefs of the relatives of schizophrenia patients followed up in community mental health centers toward stigmatization and mental illness.

Research Questions

1. What is the stigmatization level of relatives of schizophrenia patients?
2. What is the belief levels of relatives of schizophrenia patients toward mental illness?
3. Is there a statistically significant difference between the belief levels of patient relatives toward mental illness and their socio-demographic characteristics?
4. Is there a statistically significant difference between schizophrenia patient relatives’ stigmatization levels and socio-demographic characteristics?
5. Is there a statistically significant relationship between the stigmatization levels and belief levels toward mental illness?

METHOD

This methodological and cross-sectional study aims to identify beliefs toward stigmatization and mental illness among relatives of schizophrenia

patients who were followed up in community mental health centers. The study was conducted in a community mental health center providing service affiliated to the General Secretariat of Hatay Public Hospitals Association and Iskenderun Community Mental Health Center. The target population of the study was the relatives of schizophrenia patients registered in CMHCs in Hatay. There are two CMHCs located in İskenderun and Antakya provinces. The number of patients was 439 in total, 330 in the İskenderun CMHC and 109 in the Antakya CMHC. The sample was the relatives of schizophrenia patients who were registered in the CMHC and regularly attended the CMHC at least once (n=171). In this regard, the study was planned to be conducted with 171 relatives of schizophrenia patients who attended CMHCs regularly at least once; one patient relative did not accept to participate in the study. Hence, the study was completed with 170 relatives of schizophrenia patients who accepted to participate in the study.

Ethics approval

Hatay Mustafa Kemal University Clinical Research Ethics Commitee confirmed the study with the decision number 121 and with the date 16.09.2015.

Characteristics of the Study Group

Of all the patient relatives, 64.7% were females, 27.1% were aged between 40 and 49, 66.5% received help apart from a medical treatment, 63.5% consulted a religious leader, 50.6% used non-medical methods as they thought they would be beneficial, 47.1% thought their relatives treated them differently as they had a family member with schizophrenia, 24.7% hid the individual with schizophrenia and the illness from their relatives, 11.8% did not take their schizophrenia patient to visits to relatives, 8.2% felt like a stranger when they were with relatives due to their schizophrenia patient, 54.7% felt differences in people's attitudes during the social activities they participated with the schizophrenia patient, 37,6% thought the people they met in social activities behaved them differently due to their schizophrenia patient, 28.2% hid the individual with schizophrenia and the illness from the people they met in social activities, 19.4% did not attend social activities with the schizophrenia patient, and 7.1% felt like a stranger in the social activities they attended with their patients.

Implementation of the Study

Ethics approval was obtained from the Mustafa Kemal University Ethics committee. After the necessary permissions were obtained from the related institutions, verbal information was given to the relatives of schizophrenia patients in the community mental health centers, and their written consent was received. The study was conducted with schizophrenia patient relatives in the CMHCs between September 2015 and September 2016. After they were informed about the purpose of the study and their written and verbal consent was received, the participants were administered the socio-demographic form and the scales through face-to-face interviews in an available room in the community health centers or at home visits. The data collection procedure took about 45 minutes. Data were collected through the Socio-demographic Form, the Stigmatization Scale for Relatives of Schizophrenia Patients, and Beliefs toward Mental Illness Scale (BMIS).

The Socio-Demographic Form

The Socio-Demographic Form, prepared by the researcher in line with the related literature to form the independent variables, includes 37 questions about the socio-demographic features of the patients and patient relatives and the beliefs, attitudes, and behaviors of patient relatives toward stigmatization and mental illness[8,10,12,21,22,23].

The Stigmatization Scale for Relatives of Schizophrenia Patients (SSRSP)

The stigmatization scale developed by Kol Akıncı for measuring stigmatization among patient relatives was adapted as the Stigmatization Scale for Relatives of Schizophrenia Patients (SSRSP) after its validity and reliability were performed. SSRSP was utilized as the data collection tool. The scale was developed to identify stigmatization among relatives who have a patient with schizophrenia. The scale was composed of 17 items, and no items were eliminated from the

scale after the factor analysis. The five factors of the scale are as follows:

Social Isolation and Insufficiency Sub-scale: It includes items 1, 2, 3, 4, 9, and 15, and its Cronbach's Alpha value is 0,87.

Avoidance and Deterioration in Interpersonal Relationships Sub-scale: It includes items 5, 6, and 7, and its Cronbach's Alpha value is 0.80.

Social Negative Discrimination Sub-scale: It includes items 8, 10 and 11, and its Cronbach's Alpha value is 0.76.

Hiding and Embarrassment Sub-scale: It includes items 12, 13, and 14, and its Cronbach's Alpha value is 0,71.

Negative Internalization Sub-scale: It includes items 16 and 17, and its Cronbach's Alpha value is 0,69. SSRSP total Cronbach's Alpha value was calculated as 0.90.

The Stigmatization Scale for Relatives of Schizophrenia Patients (SSRSP) is a three-point scale responded as Yes: 3, Sometimes: 2, and No: 1. The scale is scored over both the total score and sub-scale scores; higher scores obtained from the scales and sub-scales indicate higher stigmatization. The scores to be obtained from the scale range between 17 and 51. The Cronbach's alpha value of the scale was found 0,90.

Beliefs toward Mental Illness Scale (BMIS)

Beliefs toward Mental Illness Scale utilized as the data collection tool in this study was developed by Hirai and Clum (2000) in the United States of America, and the Turkish reliability and validity of the scale were performed by Bilge and Çam (2008). The scale was developed to identify the positive and negative beliefs of individuals with different cultural characteristics toward mental illness.25 The scale is composed of three sub-scales that included Dangerousness, Poor Social and Interpersonal Skills, and Incurability.

Beliefs toward Mental Illness Scale is a 6-point scale responded as I completely disagree: 0, I largely disagree: 1, I partly disagree: 2, I partly agree: 3, I largely agree: 4, I completely agree: 5. The scale is evaluated out of both total scores and sub-scale scores; higher scores to be obtained from the scale and sub-scales indicate negative beliefs. Cronbach's alpha value of the Beliefs toward Mental Illness Scale was found 0,82. Cronbach's Alpha values were 0,80 for the Incurability and Deterioration in Interpersonal Relationships sub-scale, 0,71 for the Dangerousness sub-scale, and 0,69 for the Embarrassment sub-scale. 25 Cronbach's Alpha value was found 0,73 in this study.

Limitations of the Study

This study is limited to the responses given by the patients and patient relatives in the data collection forms regarding personal and family characteristics. Relatives of the patients who were registered in the community mental health centers affiliated to Hatay General Secretariate of Public Hospitals Association between September 2015 and September 2016 but did not attend the centers regularly were not included in the study. The study was limited to 170 relatives of patients who attended the CMHCs regularly.

Statistical Analysis

Data were analyzed in SPSS (Statistical Package for Social Sciences) (SPSS Inc., 2012) 21.0 statistical software program. Descriptive statistics were demonstrated using numbers and percentages. Shapiro Wilk test was utilized to test whether data distributed normally; comparison of non-normally distributed data in two independent groups was done using the Mann Whitney U test and the comparison of more than two independent groups was done using Kruskal Wallis tests. The relationships between numerical variables were tested using the Spearman correlation coefficient. Descriptive statistics were used as mean±standard deviation for numerical variables and numbers and percentage values for categorical variables. Statistical significance was taken as $P<0.05$.

Findings

The participating patient relatives' Stigmatization Scale for Relatives of Schizophrenia Patients (SSRSP) mean score was found 30.64±8.35. SSRSP sub-scale mean scores were 11.29±3.85 for the social isolation and insufficiency sub-scale,

4.83±2.00 for the avoidance and deterioration in interpersonal relationships sub-scale, 4.341±1.75 for the social negative discrimination sub-scale, 5.05±1.85 for hiding and embarrassment sub-scale, and 5.12±1.13 for the negative internalization sub-scale. Patient relatives' Beliefs toward Mental Illness Scale total mean score was 71.81±17.08. Sub-scale mean scores were 26.93±8.75 for the dangerousness sub-scale, 43.18±10.48 for the incurability and deterioration in interpersonal relationships sub-scale, and 1.68±2.49 for the embarrassment sub-scale (Table 1).

Table 1. *The Stigmatization Scale for Relatives of Schizophrenia Patients and Beliefs toward Mental Illnesses Scale Mean scores*

Scales	Ort± SD	Min	Max
SSRSP			
Social Isolation and Insufficiency	11.29±3.85	6.00	18.00
Avoidance and Deterioration in Interpersonal Relationships	4.83±2.00	3.00	9.00
Social Negative Discrimination	4.34±1.75	3.00	9.00
Hiding and Embarrassment	5.05±1.85	3.00	9.00
Negative Internalization	5.12±1.13	2.00	6.00
SSRSP Total	30.64±8.35	18.00	51.00
BMIS			
Dangerousness	26.93±8.75	3.00	84.00
Helplessness and Poor Social and Interpersonal Skills	43.18±10.48	3.00	10.00
Embarrassment	1.68±2.49	0.00	10.00
BMIS Total	71.81±17.08	8.00	137.00

SSRSP and BMIS mean scores according to patient relatives' receiving help apart from the medical treatment are demonstrated. An analysis of the findings showed that those who received help apart from the medical treatment had higher and statistically significant scores in SSRSP total and sub-scales of social isolation and insufficiency, avoidance and deterioration in interpersonal relationships, and hiding and embarrassment sub-scales in comparison to those who did not ($p<0,05$). No significant differences were found between receiving help apart from the medical treatment and social negative discrimination sub-scale mean scores ($p>0,05$). Those who received help apart from the medical treatment had higher and statistically significant scores in the embarrassment sub-scale of BMIS in comparison to those who did not ($p<0,05$). No statistically significant differences were found between BMIS total and other sub-scales mean scores. ($p>0,05$, Table 2).

Table 2. *SSRSP and BMIS mean scores according to patient relatives' receiving help apart from the medical treatment, feeling differences in people's attitudes in the social activities they participated with the schizophrenia patient, frequency of the patient's attending CMHC and participating in social activities apart from the CMHC*

	SCALE									
	SSRSP						BMIS			
	Social Isolation and Insufficiency $\bar{x}$ ±SD	Avoidance and Deterioration in Interpersonal Relationships $\bar{x}$ ±SD	Social Negative Discrimination $\bar{x}$ ±SD	Hiding and Embarrassment $\bar{x}$ ±SD	Negative Internalization $\bar{x}$ ±SD	SSRSP Total	Dangerousness $\bar{x}$ ±SD	Helplessness and Poor Social and Interpersonal Skills $\bar{x}$ ±SD	Embarrassment $\bar{x}$ ±SD	BMIS Total
Receiving help apart from the medical treatment										
Yes (n=113)	11,78±3,86	5,10±1,99	4,53±1,92	5,31±1,95	5,22±1,06	31,97±8,41	27,55±8,82	43,65±9,41	1,93±2,63	73,15±16,26
No (n=57)	10,31±3,68	4,29±1,92	3,94±1,28	4,52±1,50	4,92±1,25	28,01±7,62	25,70±8,55	42,26±12,38	1,19±2,11	69,15±18,46
Z*	-2,450	-2,856	-1,570	-2,410	-1,390	-3,091	-1,451	-1,447	-1,981	-1,852
p	**0,014**	**0,004**	0,116	**0,016**	0,165	**0,002**	0,147	0,148	**0,048**	0,064
Feeling differences in people's attitudes in the social activities they participated with the schizophrenia patient										
Yes (n=93)	12,41±3,89	5,58±2,13	4,93±2,05	5,59±1,95	5,44±0,94	33,96±8,52	27,73±10,10	43,41±9,61	1,73±2,51	72,88±18,13
No (n=77)	9,93±3,36	3,93±1,38	3,62±0,87	4,40±1,48	4,74±1,22	26,63±6,11	25,97±6,71	42,90±11,50	1,63±2,47	70,51±15,74
Z*	-4,157	-5,388	-4,171	-4,169	-4,073	-5,608	-1,345	-1,217	-0,379	-1,452
P	**<0,001**	**<0,001**	**<0,001**	**<0,001**	**<0,001**	**<0,001**	0,179	0,224	0,705	0,147
Frequency of the patient's attending CMHC										
1-2 days a week (n=56)	11,14±3,75	4,78±2,02	4,21±1,71	5,46±1,79	5,16±1,04	30,76±8,29	26,80±8,42	44,51±13,02	1,05±2,05	72,37±18,53
3-5 days a week (n=52)	10,40±3,96	4,50±1,92	4,00±1,49	4,59±1,70	4,84±1,30	28,34±8,10	25,65±7,19	42,17±9,28	1,25±2,06	69,07±14,92
1-3 days a month (n=57)	12,01±3,75	5,05±1,99	4,73±1,98	5,03±1,97	5,29±1,05	32,14±8,23	27,80±10,30	42,56±8,85	2,45±2,77	72,82±17,69
1 day in two months (n=5)	14,00±3,16	6,40±2,30	4,80±1,30	5,40±1,81	5,60±0,89	36,20±8,46	31,80±7,39	46,00±7,68	4,60±3,84	82,40±11,37
χ^{2*}	7,388	6,009	6,598	**7,824**	5,131	**8,413**	4,656	2,152	**14,852**	4,295
P	0,061	0,111	0,086	**0,050**	0,162	**0,038**	0,199	0,541	**0,002**	0,231
Participating in social activities apart from the CMHC										
Never (n=45)	13,46±3,40	5,44±2,26	5,13±2,09	5,53±1,98	5,46±0,86	35,04±7,85	27,71±8,44	43,93±11,33	2,26±2,80	73,91±19,12
Sometimes (n=92)	10,80±3,60	4,57±1,70	3,95±1,33	4,96±1,79	5,11±1,16	29,42±7,50	27,20±9,24	43,33±8,66	1,63±2,41	72,17±15,18
Frequently (n=33)	9,69±3,97	4,72±2,28	4,33±1,96	4,63±1,72	4,66±1,24	28,06±9,22	25,12±7,70	41,75±13,68	1,06±2,10	67,93±19,00
χ^{2*}	**21,487**	4,988	**11,331**	4,583	**9,574**	**19,557**	3,892	5,804	4,473	**6,850**
P	**<0,001**	0,083	**0,003**	0,101	**0,008**	**<0,001**	0,143	0,055	0,107	**0,033**

Z* Mann Whitney U Test
χ^{2*} Kruskal Wallis test

SSRSP and BMIS mean scores are demonstrated according to feeling differences in people's attitudes in the social activities they participated with the schizophrenia patient. SSRSP total and all sub-scale mean scores were higher and statistically significant in those who felt differences in people's attitudes in the social activities they participated with the schizophrenia patient in comparison to those who did not feel so (p<0,05). No significant differences were found between BMIS and all sub-scale mean scores according to feeling differences in people's attitudes in the social activities they participated with the schizophrenia patient (p>0,05, Table 2).

Patient relatives' SSRSP and BMIS mean scores according to the frequency of the patient's attending CMHC are shown. An analysis of the findings indicates that there is a statistically significant difference between the patient's frequency of attending the CMHC and the scores of SSRSP total and sub-scales of hiding and embarrassment mean scores (p<0,05). Further analysis of all pairwise test was performed to find out which group caused this difference. The group that caused a statistical difference was composed of patients who went to the CMHC 1 to 3 days monthly (p<0,05). No statistically significant differences were found between the frequency of attending the CMHC and SSRSP and other

sub-scale mean scores (p>0,05). No statistically significant difference was found between patients' frequency of attending the CMHC and embarrassment sub-scale mean score of BMIS (p<0,05). Further analysis of all pairwise test was performed to find out which group caused this difference. The group that caused the statistical difference in the embarrassment sub-scale was composed of the patients who went to the CMHC once in two months. No statistically significant differences were found between the frequency of the patient's going to the CMHC and BMIS total and other sub-scale mean scores (p>0,05, Table 2).

SSRSP and BMIS mean scores of the patient relatives according to the patient's participation in social activities apart from the CMHC are demonstrated. An analysis of the findings indicated a statistically significant difference between the patient's participating in social activities apart from the CMHC and their SSRSP total and sub-scales of social isolation and insufficiency, social negative discrimination, and negative internalization sub-scale mean scores (p<0,05). Further analysis of all pairwise test was utilized to find out which groups caused this difference. The group that caused a statistical difference in SSRSP total, social isolation and insufficiency, social negative discrimination and negative internalization sub-scale was the group that was composed of patients who never participated in social activities apart from the CMHC (p<0,05). No statistically significant differences were found between participation in social activities and SSRSP other sub-scales mean scores (p>0.05). No significant differences were found between patients' participation in social activities apart from the CMHC and BMIS total mean scores (p<0,05). Further analysis of all pairwise test was utilized to find out which groups caused this difference. The group that caused a statistically significant difference in BMIS total score was found to be composed of patients who never participated in the social activities apart from the CMHC (p<0,05). No significant differences were found between patients' participation in social activities apart from the CMHC and BMIS all sub-scale mean scores (p>0,05, Table 2).

A positive, medium-level relationship was found between SSRSP total and BMIS total scores (r=0,464) (p<0,001, Table 3).

Table 3. *The relationship between the Stigmatization Scale for Relatives of Schizophrenia Patients and Beliefs toward Mental Illnesses Scale*

SSRSP		**BMIS**			
		Dangerousness	Poor Social and Interpersonal Skills	Embarrassment	**BMIS Total**
Social Isolation and Insufficiency	**r**	0,380*	0,294*	0,365*	0,435*
	p	0,001	0,001	0,001	0,001
Avoidance and Deterioration in Interpersonal Relationships	**r**	0,317*	0,194*	0,340*	0,334*
	p	0,001	0,011	0,001	0,001
Social Negative Discrimination	**r**	0,286*	0,108	0,337*	0,280*
	p	0,001	0,162	0,001	0,001
Hiding and Embarrassment	**r**	0,316*	0,291*	0,198*	0,350*
	p	0,001	0,001	0,010	0,001
Negative Internalization	**r**	0,389*	0,336*	0,174*	0,422*
	p	0,001	0,001	0,023	0,001
SSRSP Total	**r**	0,422*	0,311*	0,385*	0,464*
	p	<0,001	<0,001	<0,001	0,001

DISCUSSION

The total scores to be obtained from the SSRSP range between 17 and 51. Hence, the scores obtained from the SSRSP total and sub-scales indicate a high level of stigmatization. Studies show that families of individuals with mental illness experience high levels of stigmatization,[26,27] family members who spend the highest amount of time with the individual who has mental illness feel like they do not belong to the external world,[28] patient relatives want to hide the illness, and they are exposed to stigmatization due to the presence of mental illness in family,[29] and patients and patient relatives do not consult a psychiatrist with the fear of stigmatization due to the psychiatric illnesses although they are referred to a psychiatrist.[30,31] Patient relatives who take the responsibility of the care for the schizophrenia patient could be affected physically, psychologically, economically and emotionally. In addition, they worry about the patient's future and about who will take care of him/her when they get older or are not alive anymore, which might lead to blaming themselves and the patient and being ashamed of the patient. All these factors could cause stress.[32]

BMIS total and sub-scales mean scores of the participating patient relatives were found to be high. Büyüksandıç Özşen similarly reported the BMIS total and sub-scale mean scores to be high. Higher scores obtained from the scale and sub-scales indicate negative beliefs. Based on the BMIS total and sub-scales mean scores, Büyüksandıç Özşen reported that patient relatives had above-average negative beliefs.[33] The results of the present study and the ones reported by Büyüksandıç Özşen are similar. It could be concluded that the BMIS total and sub-scale levels of the participating patient relatives were high, and thus patient relatives had negative beliefs toward mental illness.

SSRSP total and sub-scales of social isolation and insufficiency, avoidance and deterioration in interpersonal relationships, hiding and embarrassment sub-scales mean scores were high and statistically significant according to patient relatives' receiving help apart from the medical treatment. Patient relatives' receiving help apart from the medical treatment and BMIS sub-scales showed that the embarrassment sub-scale mean score was high and statistically significant. Several studies reported that misinformation about psychiatric illnesses could direct patient relatives to inaccurate solution-seeking behaviors[34,35]. Some studies report that the treatment of psychiatric illnesses is performed by people who do not have any relation and authority about psychiatric illnesses. Wizards, hodjas, priests, people who previously had the same illness, relatives, neighbors, and friends who have hearsay information about the illness are reported to have more place than health personnel and doctors about this issue[36,37,38,39]. People in our country and other countries reported that these illnesses are caused by the factors such as hostile spirits, devilish spirits, thoughts infused in the individual's head by force, evil eye, spell, and magic[36].It is also reported that lack of rapid recovery causes families to feel helpless, and these feelings of helplessness could lead them to seek different treatment options[39].This case could result from patient relatives' lack of knowledge or misinformation about mental illness.

SSRSP total and all sub-scale scores were significantly higher in the patient relatives who reportedly felt differences in people's attitudes in the social activities they attended together with the schizophrenia patient. The study conducted by Oban and Küçük (2011) on the identification of the factors indicating stigmatization in psychiatric illnesses in high school students reported that the participants tended to have prejudices, negative attitudes, and desires to put a social distance about these illnesses[40].A study conducted by Struening et al. (2001) in New York reported that family members who had a psychiatric patient in family thought that majority of people in society looked down on families who lived with an individual who had a mental disorder[41].This situation could be caused by the fact that patient relatives thought that they were looked down on and excluded due to the schizophrenia patient they have.

According to the CMHC registration durations, social negative discrimination, negative internalization sub-scale mean scores of SSRSP sub-scale mean scores of patient relatives were statistically significant. BMIS total and embarrassment sub-scale mean scores were statistically significant according to the duration of registration. The study conducted by Avcil in 2014 with 82 psychiatric patient relatives showed that in time patient relatives saw the patients who received psychiatric treatment less as a patient, but they began to feel more embarrassed[42].This

finding could result from the high number of patients who were enrolled in the CMHC for 12 months or more.

Patient relatives' SSRSP total and sub-scales scores according to patients' frequency of going to the CMHC showed that hiding and embarrassment sub-scale mean scores were statistically significant. There was an increase in the stigmatization level with a decrease in the patients' frequency of going to the CMHC. The majority of individuals with mental illness were reported to have difficulties in continuing the treatment regularly[43]. Studies show that stigmatization is a factor that affects compliance to treatment[43] and that individuals who have mental illness and their relatives accept to be isolated at home by refusing the treatment due to stigmatization[10]. This situation could be considered to result from some factors; for instance, patients do not go to the CMHC as they feel embarrassed, they generally go to the CMHC just to get the prescription of their medicine and thus do not benefit from the services provided by the center.

According to the participation of patients to social activities apart from the CMHC, patient relatives' social isolation and insufficiency, social negative discrimination, negative internalization sub-scale mean scores of the SSRSP total scores were statistically significant. According to the findings of the study conducted by Arkar in 1991, people believed that there should be more distance when there is a need to have personal interactions with patients who have mental illness, they tend to stop interaction with individuals who are defined as "mentally ill", and the social acceptance of individuals with mental illness is high in general settings[44].This case could result from the fact that the patients and patient relatives do not gain acceptance in social environments due to negative attitudes of society towards these illnesses in general settings.

An analysis of the relationship of patient relatives' SSRSP total and sub-scales and BMIS total and sub-scales indicated a positive, medium-level relationship between SSRSP total and BMIS total scores (r=0,464).

The more the mental disorder is recognized, the higher the stigmatization will be[45]. A study on the factors that identify stigmatization about psychiatric disorders reported that the participants tended to have prejudices, desires to put social distance, and negative attitudes toward these illnesses[40]. Another study also reported that families that have a member with mental illness experienced problems as they believed that people thought badly about them, they also reportedly felt hate, fear, and shame in society, thus going out with the individual with mental illness could be a source of fear for families[46]. It is also reported that patient relatives are ashamed of this condition, thinking that they played a role in the psychiatric illness to develop[47,48,49]. Some studies indicate that individuals with a psychiatric illness generally have to live alone and live their life as a person who is misunderstood due to stigmatization; families kept the individual with mental illness at home and isolated him/her from society; patient relatives similarly isolated themselves from society, experienced fear of being stigmatized, and felt helpless; and they also feared that the individual with mental illness would do harm[50,51,52,53,54,55]. BMIS mean score was found to increase with the increase in the SSRSP mean score. Hence, the negative beliefs of patient relatives toward mental illness might have increased stigmatization in a parallel way.

CONCLUSION

In conclusion, belief levels of patient relatives toward stigmatization and mental illness were found to be at a moderate level. It was found that patient relatives felt ashamed of the presence of the individual with mental illness in the social activities they attended together and thus felt differences in people's attitudes, and their interpersonal relationships were affected negatively due to the illness.

Going to the CMHC every day regularly was found to lead to less stigmatization of patients and their families and have positive effects on their beliefs toward mental illness.

Therefore, it is recommended to prepare special programs that include accurate information about schizophrenia through both audio and written media, initiate activities in CMHCs and other related institutions to help society to improve their attitudes towards schizophrenia patients and their relatives and eliminate isolation and prejudices, and to provide patient relatives with consultancy services by identifying the factors indicating

stigmatization so that more understanding behaviors and attitudes could be developed towards psychiatric patients.

It is recommended that all health professionals should communicate with patients and patient relatives for whom they are in charge in the region they work, inform them about the purposes and functions of the center, invite patients and patient relatives to the center, help patients and patient relatives to realize the importance of the centers, emphasize the importance of CMHC nurses and other health professionals, and conduct more comprehensive studies about stigmatization in schizophrenia patients that include the effects of CMHCs and CMHC health team.

Conflict of interest statement

The authors declare that they have no conflicts of interests.

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REFERENCES

1. Aziz, KA., Mohammed, H., Elamin, MH., El-Saadouni, NM., El-Gabry, DA., Mahmoud Barakat, M., Alhayyas, F., Moselhy, HF. Schizophrenia: Impact of psychopathology, faith healers and psycho-education on adherence to medications. *Int J of Soc Psych*, 2016; 62:719–725.

2. Duman, ZC., Bademli, K. Families of chronic psychhiatric patients: a systematic review. *Current Approaches in Psychiatry,* 2013;5(1):78-94

3. Koroglu, A., Hocaoglu, C. The impact of schiophrenia on the family. *Düzce University Health Sciences Institute Journal,* 2017;7(3):170-175

4. Ozlu, A. Yildiz, M. Aker, T. Validity and reliability study of zarit caregiver burden scale in relatives of schiophrenia patients. *Archives of Neuropsychiatry,* 2009;46.

5. Cam, MO., Bilge, A., Engin, E., Akmese, ZB., Turgut, EO., Cakir, N. ınvestigation of the effectiveness of anti-stigma training given to headmen regarding mental illness. *Journal of Psychiatric Nursing*, 2014; 5:129-136.

6. Bilge, A., Cam, O. Fighting the stigma of mental illness. *TAF Preventive Medicine Bulletin,* 2010; 9:71-78.

7. Sarikoc, G., Demiralp, M., Ozsahin, A., Acikel, C. Help seeking in mental illness: A research on patients' relatives attitudes. *Balikesir Journal of Health Sciences*, 2015;4 (1)

8. Cam, O., Bilge, A. Beliefs, attitudess and stigma process toward mental illness/patient in turkey: systematic review. *Journal of Psychiatric Nursing,* 2013; 4(2):91-101

9. Taskin, EO. Stigma process and stigma towards schzophrenia. *Anatolian Journal of Psychiatry*, 2009; 10 (2): 58-9

10. Kus Saillard, E. Psychiatrist views on stigmatization toward people with mental ıllness and recommendations. *Turkish Journal of Psychiatry*, 2010;21:14-24.

11. Halter, MJ. Stigma in Psychiatric Nursing. *Perspectives in Psychiatric Care,* 2002;38(1):23

12. Ergun, G., Isik, I., Dikec, G. Roles of psychiatry nurses within a therapeutic environment of psychiatry clinics in Turkey. *Archives of psychiatric Nursing*, 2017;*31*(3), 248-255.

13. Taskin, EO. Stigma: attitudes and stigma toward mental illnesses. Taskin EO., Editor. Izmir: Meta Basim Matbaacilik Hizmetleri, s.3-7; 2007.

14. Cobanoglu, ZSÜ., Aker, T., Cobanoglu, N. Treatment compliance problems in patients with schzophrenia and orher psychotic disorders. *Dusunen Adam,* 2003;*16*(4): 211-218.

15. Kivircik Akdede, BB., Alptekin, K., Topkaya, SO., Belkiz, B., Nazli, E., Özsin, E. and et. all. Level of stigmatization of schzophrenia in youn people. *New Symposium. 2004,42:113-117.*

16. Baysan Arabacı, L., Başogul, C., Buyukbayram, A. Internalized stigma and social functioning levels of forensic psychiatric patients. Anatolian Journal of Psychiatry, 2015; 16(2):113-121

17. Ozkan, S. "Kronik Psikoz", İ.Ü. İstanbul Tip Fakültesi Hasta Okulu.[http://www.frmtr.com/saglik_makaleleri/1209527_sizofrenide_damgalamayi azaltmakpdt.html 2009. 07.06.2017].

18. Soygür, H. Society's Rejection: Discrimination Against People with Mental Illness. *Federation of schizophrenia associations,* Ankara, 2014.

19. Gulseren, L., Cam, B., Karakoc, B., Yigit, T., Danaci, AE. and et al. Factors Affecting the Family Burden in Schizophrenia. *Turkish Journal of Psychiatry,* 2010, 21:203-212 .

20. Shibre T, Negash A, Kullgren G, Kebede D, Alem A, Fckadu A, et al. Perception of Stigma Among Family Members of İndividuals with Schizophrenia and Major Affective Disorders in Rural Ethiopia. *Soc Psychiatry Epidemiol,* 2001, 36(6):299-303

21. Ben-Noun, L. Characterization of Patients Refusing Professional by Relatives of Psychotic Patients. *J Psychiatr Assoc Thailand,* 1996, 42(4):226-33

22. Nicholas, R. et al., "Stigma, discrimination, social exclusion, andmental health – A Public health perspective, In: Richard P., Marni S., Routledgehandbook in global public health, 1st publish, RoutledgeTaylor & Francis Group, 2011, 394-9.

23. Kaya, Y., & ÖZ, F. Global social functioning of patients with schizophrenia and care burden of caregiving relatives. *Journal of Psychiatric Nursing*, 2019; *10*(1)

24. Buyuksandic Ozsen, P. Knowledge, Beliefs and Help-Seeking Behaviors of Relatives of Schizophrenic Patients Regarding Schizophrenia. Master's Thesis, Gaziantep University Health Sciences Institute, Department of Nursing, Gaziantep, 2013.

25. Ozbas, D., Kucuk, L., & Buzlu, S. Attitudes of Families with Individuals Mental Disorders Towards the Disease. *Dusunen Adam: Journal of Psychiatry and Neurological Sciences,* 2008;*21*(1-4).

26. Angermeyer, MC., Matschinger, H. Relatives' Beliefs About The Causes of Schizophrenia. *Acta Psychiatr Scand*, 1996, 93:194-199

27. Tuna, A. Investigation of the effects social rejection of mentally patients on the patient's family. Master's Thesis, Istanbul University Health Sciences Institute, Istanbul, 1997.

28. Oksuz, E., Vural, H., Oflaz, F. Attitudes of Family Members towards Psychiatric Patients. *Zonguldak School of Health Education Research Journal*, 2005;*1*(3):11-20.

29. Akbulut, Ş. Attitudes of relatives of schizophrenic patients towards and the difficulties they experience in care of the patient. Master's Thesis, Harran University Health Sciences Institute, Departman of Psychiatric Nuring, Sanliurfa, 2009.

30. McCann G, McKeown M, Porter I. Understanding The Needs of Relatives Of Patients Within A Special Hospital For Mentally Disordered Offenders. A Basis For İmproved Services. *Journal of Advanced Nursing,* 1996, 23:346-352.

31. Yildiz, M., Yazici, A., Cetinkaya, O., Bilici, R. and Elcim, R. Information and Opinions of Relatives of Schizophrenia Patients About the Disease. *Turkish Journal of Psychiatry,* 2010; 21(2):105-113.

32. Ziyalar, A. The effect of Culture on Psychiatric Approach. *Yeni Symposium,* 1995; 33(2-3):59-63.

33. Ozkorumak, E., Gulec, H., Kose, S., Borckardt, J., Sayar, K. Nonimedical Help Seeking Behavior in Depression Patients: Could Alexithymia Be A Factor? Journal of *Clinical Psychiatry,* 2006; 9:161-169.

34. Bahar, A., Savaş, H. A., & Bahar, G. Evaluation of Non-Medical Help Seeking Behavior in Psychiatry Patients. *In New Symposium,* 2010; 48(3): 216-222.

35. Yildiz, M. Psychological Social Skills Training for Schizophrenia Patients. Ankara, Türkish Social Psychiatry Association Publications, 2011.

36. Wahl, O. F., & Harman, C. R. Family views of stigma. *Schizophrenia Bulletin*, 1989; *15*(1):131-139.

37. Oban, G., & Küçük, L. Factors affecting Stigma Towards Mental Illnesses in Adolescents. Journal of *Psychiatry Nursing,* 2011;*2*(1), 31-39.

38. Struening, EL., Perlick, DA., Link, BG., Hellman, F., Herman, D., Sirey, JA. Stigma as A Barrier to Recovery: The Extent to Which Caregivers Believe Most People Devalue Consumers and Their Families. *Psychiatr Serv,* 2001, 51(12):1633-1638.

39. Cansayar, S. Why How Schizoprenia. Ankara: Sen Matbaa, 2005.

40. Arkar, H. The Social Refusing of Mental Patients. *Journal of Psychiatry Neurologic Science*, 1991;4:6–9.

41. Soygür, H., Alptekin, K., Atbasoglu, E. C., Herken, H. Schizophrenia and Other Psychotic Disorders. *Türkish Psychiatric Association, s.500;* 2005.

42. Durmaz, H. Examining the Effect of the Self-Efficacy Levels of Family Members Caregiving to a Schizophrenia Patient on the Caregiving Burden. Master's Thesis, Ataturk University Health Sciences Institute, Departman of Psychiatric Nuring, Erzurum, 2011.

43. Tel, H., Terakye, G. A Psychoeducational Approach Application Trial for Families of Schizophrenic Patients. *Anatolian Journal of Psychiatry,* 2000; 1:133-142.

44. Tanriverdi, D. The Effect of psyceducation Given to Caregivers of Schizophrenia Patients on Their Care Burden. Unpublished Doctoral Thesis, Ataturk University Health Sciences Institute, Erzurum, 2008.

45. Caqueo-Urizar, A., Gutierrez-Moldonado, J., Miran-da-Castillo, C. Quality of Life in Caregivers of Patients with Schizophrenia: A Literature Review. *Health Qual Life Outcomes*, 2009;7:84.

46. Gurhan, N. Support for The Social Support Needs of Families with Psychiatric Patients. *Nursing Buletini,*1991;5(22):67-70

47. Yildiz, M. Understanding Schizophrenia and Learning to Live with It. Ankara: Hekimler Yayin Birligi, 1999.

48. Angermeyer, MC. "Public İmage of Psychiatry. Results of A Representative Poll in The New Federal States of Germany". *Psychiatrische Praxis,* 2000;27:327-329.

49. Dogan, O. Home Care of Schizophrenia Patients. *Anatolian Journal of Psychiatry*, 2001; 2(1):41-46

50. Dogan, O., Dogan, S., Tel, H., Coker, F., Polatoz, O., Basegmez, FD. Psychosocial Approaches to Schizophrenia: Families. *Anatolian Journal of Psychiatry,* 2002; 3:133-139.

51. Gulseren, L. Schizophrenia and The Family: Difficulties, Burdens, Emotions, Needs. *Turkish Journal of Psychiatry,* 2002; 13(2):143-151

52. Kayahan, M. Nursing Students' Attitudes Towards Schizophrenia ant the Effect of Psychiatry Education. *Harran University Faculty of Medicine Journal,,* 2009; 6(1):27-34

53. Ozer, U., Varlık, C., Ceri, V., Ince, B., Delice, MA. Change Starts With Us: Stigmatizing Attitudes Towards Mental Illnesses and Use of Stigmatizing Language Among Mental Health Professionals. *Dusunen Adam*, 2017; *30*(3), 224-232.

54. Kapikiran Acun, N., Kapikiran, S. Self Stigma Scale For Seeking Psychological Help: Validity And Reliability. *Turkish Psychological Counseling and Guidance Journal,* 2013, 5 (40), 131-141

55. Koksal, H. Evaluation of Society's Perpective on Mental Illneses. Master's Thesis, Marmara University Institute of Health Sciences, Department of Public Health, Istanbul, 2012.

56. Avcil, C. Psikiyatrik Hasta Yakınlarında Damgalama ve İlişkili Faktörler. Master's Thesis,, Üsküdar Üniversity Institute of Social Sciences, Department of Clinical Psychology, Istanbul, 2014.