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ORIGINAL ARTICLE

Self-care Power and Healthy Lifestyle Behaviors in Persons with Severe Mental Illness

Ağır Ruhsal Hastalığı Olan Bireylerde Öz Bakım Gücü ve Sağlıklı Yaşam Biçimi Davranışları

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Abstract

Objective: The purpose of the study was to examine the self-care power and healthy lifestyle behaviors of persons with severe mental illness.

Method: The research was carried out with 99 chronic psychiatric patients who applied to community mental health centres of one training and research hospital, two state hospitals. Data were collected using the healthy lifestyle behaviors scale II and the self-care power scale.

Results: The highest level of healthy lifestyle behavior is in the dimensions of spiritual development and interpersonal relations, and the lowest level is in the dimension of physical activity. A moderately positive and significant relationship was found between the mean scores of healthy lifestyle behaviors and the mean scores of self-care power.

Conclusion: In the study, the relationship between the healthy lifestyle behaviors of the patients and their self-care power was revealed. It is recommended that poor patients, young patients, and those with low social support should be evaluated as risky groups in terms of healthy lifestyle problems in community mental health centers and plans should be made to improve self-care power.

Keywords: Severe mental illness, healthy lifestyle behaviors, self-care power, community mental health center

Öz

Amaç: Bu çalışmanın amacı, ağır ruhsal hastalığı olan bireylerin öz bakım gücü ve sağlıklı yaşam biçimi davranışlarını incelemektir.

Yöntem: Araştırma, bir eğitim ve araştırma hastanesi ve iki devlet hastanesinin toplum ruh sağlığı merkezlerine başvuran 99 kronik psikiyatri hastası ile gerçekleştirilmiştir. Veriler, sağlıklı yaşam tarzı davranışları ölçeği II ve kendine bakım gücü ölçeği kullanılarak toplanmıştır.

Bulgular: Sağlıklı yaşam biçimi davranışı en yüksek düzeyde ruhsal gelişim ve kişilerarası ilişkiler boyutlarında, en düşük düzey ise fiziksel aktivite boyutundadır. Sağlıklı yaşam biçimi davranışları puan ortalamaları ile öz bakım gücü puan ortalamaları arasında orta düzeyde pozitif ve anlamlı bir ilişki bulunmuştur.

Sonuç: Çalışmada hastaların sağlıklı yaşam biçimi davranışları ile öz bakım güçleri arasında pozitif ilişki olduğu ortaya konulmuştur. Toplum ruh sağlığı merkezlerinde yoksul hastaların, genç hastaların ve sosyal desteği düşük olanların sağlıklı yaşam sorunları açısından riskli gruplar olarak değerlendirilmesi ve öz bakım gücünü geliştirmeye yönelik planlar yapılması önerilmektedir.

Anahtar Kelimeler: Ağır ruhsal hastalığı olan bireyler, sağlıklı yaşam biçimi davranışları, öz bakım gücü, toplum ruh sağlığı merkezi

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Introduction

The life expectancy of chronic psychiatric patients is approximately 25 years less than that of the general population (1). It is stated that especially the lifestyle behaviors of the patients have a determinant role in this situation (1,2). The ability of people to manage the behaviors that affect their health is defined as a healthy lifestyle (3). In persons with severe mental illness factors such as irregular diet, sedentary living, lack of self-care, smoking, unemployment, poverty, and long-term side-effects of psychotropic drugs increase the risk of obesity and other physical health problems diminishing lifespan (4-10). It is stated that most of the psychiatric patients die from cardiovascular disease or metabolic complications, infection, or respiratory system diseases (11). All these study results suggest that the healthy lifestyle behaviors and self-care of the patients are not good.

Various factors especially self-care power influence the development of healthy lifestyle behaviors (12,13). People with high self-care power are thought to sustain healthy lifestyle behaviors more consistently over time (7,13,14). In the Riegel et al. (7) study, they examined people's difficulty in self-care in two groups: Behavior change and disease-related factors. The behavior change factors address habits, motivation, decision making, and the challenges of persistence. The illness related factors address specific issues that make self-care exceedingly difficult-multimorbidity, symptoms, and stressful life events. The literature contains studies on the self-care power of individuals are mostly related to physical diseases (15-18) but shows few studies examining the self-care power of persons with severe mental illness (7,19-22). In these studies, it was found that the self-care power of the patients was moderate. Due to small sample size and differing durations and variables involved in these studies, more thorough investigation is needed, and there have been literature reviews recommending additional research. Lucock et al. (23) reviewed 20 studies on self-care in psychiatric disorders and recommended further research on patients' views of the basic elements of self-care and effective self-care support. Chen et al. (24) found that outpatients with a diagnosis of both schizophrenia and type 2 diabetes scored significantly lower on measures of self-efficacy and self-care than outpatients affected by type 2 diabetes alone and stated that a self-efficacy education program should be developed to help patients successfully manage their dual illnesses. Holmberg and Kane (25) found that people with schizophrenia are less likely to engage in self-care or health-enhancing activities compared to the general population. Çiftçi et al. (19) have suggested that people with mental disorders have difficulty in determining their needs for self-care and that periodic training programs are required to increase their self-care levels and have recommended that this type of advanced research should be done on larger groups.

Main Points

- It has been determined that as the self-care power scores of individuals with severe mental illness increase the scores of healthy lifestyle behaviors increase.
- Patients with a good income level have higher scores in all dimensions of healthy lifestyle behaviors.
- Nurses working with patients; they can develop healthy lifestyle behaviors by increasing the self-care power of patients.

Healthy lifestyle practices have been used to a limited extent in the mental health field (7). However, people with severe mental illness such as schizophrenia require careful baseline assessment and ongoing monitoring of physical health parameters to avoid co- morbid health complications. Treatment and prevention strategies should include encouraging healthy lifestyles modification (26-29). Self-care is emphasized as integral to a patient-centered management of long-term health conditions and disease prevention through healthy lifestyle practices (15). Prioritizing self-care power may be effective in developing healthy lifestyle behaviors. We could not find any study of the relationship between self-care power and healthy lifestyle behaviors in persons with severe mental illness. To increase the self-care powers of the patients and improve their lifestyles, there is a need to know their status regarding their self-care powers and healthy lifestyle behaviors (7,30).

In the community mental health centers, psychiatric nurses assume important responsibilities regarding the development of patients' self-care power and healthy lifestyles (4,31,32). McKibbin et al. (33) stated that community mental health providers identified multiple levels of influence on the health behaviours of adults with serious mental illness. They also stressed that successful health promotion programs for this population be frequent and ongoing.

Nurses can provide the most comprehensive assessment of patient needs and can ensure the development of healthy lifestyle behaviors by identifying and supporting the self-care power of the patients they care for. It is expected that the data to be obtained from the study will be a data source for the definition of these characteristics of the patients and for the development of programs.

Purpose

This study aimed to examine the self-care power and healthy lifestyle behaviors of persons with severe mental illness, and related factors.

Research Questions

1. What are the patients' self-care power and healthy lifestyle behaviors scale and subscale mean scores?

2. Is there a significant difference between the descriptive characteristics of the patients and the healthy lifestyle behaviors scale and subscale mean scores and self-care power scale mean scores?

3. Is there a relationship between patients' self-care power and healthy lifestyle behaviors scale and subscale mean scores?

Material and Methods

Setting
This descriptive research was conducted within three community mental health centers (CMHC) affiliated with a training and research hospital and two state hospitals. CMHC operate to provide psychosocial support services to patients with severe mental disorders (bipolar disorder, schizophrenia, schizoaffective disorder, and atypical psychosis) within the framework of mental health services based on the community hospital balance model. The team consists of psychiatrists, nurses, social workers, and occupational therapists.

Population/Sample of the Research
Data was collected from 99 patients who consulted CMHC and who met the sample selection criteria. Selection criteria are persons with severe mental illness over the age of 18 who are registered in the CMHC and who have the diagnosis of one of the severe mental illnesses (schizophrenia and similar psychotic disorders, mood disorders-bipolar disorder) according to the DSM-V-TR diagnostic criteria, who live with their family or alone.

Data Collection Tools
Patient descriptive information form, healthy lifestyle behavior scale II (HLBS II) and self-care power scale were used as the data collection tools.

a) Introductory information form
The form includes individuals' age, gender, marital status, education, employment, and economic status, who they live with, how long they have had the disease, hospitalization and health follow-up history, CMHC attendance history, smoking/alcohol/substance use, and support networks. The form has been developed by the researchers. There are 15 questions in the form (34,35).

b) Self-care Power Scale
Developed by Kearney and Fleischer, this scale measures individuals' ability to carry out the activities required to sustain their health. Nahcivan (36) conducted its Turkish validity-reliability study. The scale is in a five-point Likert type and includes 35 items, and the statements are scored between 0-4. The minimum and maximum scale scores obtainable are 0 and 140. Increasing scores correlate to increasing self-care power (36). The Cronbach's alpha value of the scale was determined as 0.88 in this study.

c) HLBS II
Developed by Pender et al. in 1987 and updated by Walker and Hill-Polerecky (3), this scale was the subject of a Turkish validity and reliability study by Bahar et al. (37). The HLBS II scale is a 4-point Likert-type scale consisting of 52 items. The scale consists of six sub-dimensions: "Health responsibility", "physical activity", "nutrition", "spiritual growth", "interpersonal relationships" and "stress management". The minimum and maximum scale scores obtainable are 52 and 208. High scores correlate to well-developed healthy lifestyle behavior of individuals is (37). The Cronbach's alpha value of the scale was 0.92 in this study.

Data Collection
The researchers herself collected the study data after obtaining written consent from patients meeting the selection criteria. Consenting participants were invited to complete the data collection questionnaires, but since some expressed boredom or difficulty understanding the items on the questionnaire, much of the data was collected in face-to-face interviews.

Statistical Analysis
Statistical Package for the Social Sciences (SPSS) 16.0 was used for the statistical evaluation of the data. Non-parametric tests were used because data did not show normal distribution. Since the total scores of the scales and subscales are considered as dependent variables, Kruskal-Wallis analyses and Mann-Whitney U test were used to determine whether the independent variables affected the sub-dimensions of the scales and scales. To determine the group that created the difference in the variables with more than two groups and the significant difference was detected, the advanced analysis method post-hoc multiple comparisons Tukey test was applied. Pearson's Correlation analysis was used to analyze the relationship between health life behaviour scale and self-care power scale score. The significance value was evaluated as $p \leq 0.05$.

Ethical Aspect of the Research
Written permission was granted by the Non-Interventional Research Ethics Committee of Üsküdar University (meeting 10, October 17, 2017) and by the Southern Public Hospitals Association where the institutions hosting the study were affiliated. Written informed consent was also obtained from the participants.

Results

More than half of the 99 patients who participated in the study were diagnosed with schizophrenia. Their mean age was 40.98, and most of them were male and single. 88.9% of the patients were unemployed. 30.3% of the patients attended the community mental health center for a period of one to eleven months. It was determined that 98% of them used their medications regularly, almost all of them went to health check-ups, about half of them smoked, 91.9% did not use alcohol, and 85.9% had someone who supported them in difficult/challenging situations (Table 1).

Spiritual development and interpersonal relationships, the highest average of the patients from the healthy lifestyle scale, it is seen that the low average is in the physical activity sub-dimension. Also, it is seen that the self-care power scale scores of the patients are close to the maximum value (Table 2).

Table 1.
Descriptive Characteristics of the Patients

Variables	(n)	(%)
Gender		
Female	34	34.3
Male	65	65.7
Age		
31-49	31	31.3
50-80	68	68.7
Diagnoses		
Schizophrenia	68	68.7
Bipolar disorder	19	19.2
Schizoaffective disorder	5	5.1
Non-organic psychosis	7	7.0
Marital status		
Married	14	14.1
Single	69	69.7
Widow(er)	16	16.2
Educational status		
Illiterate	3	3.0
Primary school	49	49.5
High school	35	35.4
University	12	12.1
Employment status		
Employed	11	11.1
Unemployed	88	88.9
Income level		
Good	19	19.2
Moderate	61	61.6
Bad	19	19.2
People they live with		
Alone	10	10.1
With his or her own family	63	63.6
With his/her spouse and children	12	12.1
Other (friends, distant relative)	14	14.1
Regular use of medications		
Yes	97	98.0
No	2	2.0
Status of going to health check-ups		
Regular	95	96.0
Irregular	4	4.0
Smoking status		
Yes	46	46.5
No	53	53.5
Alcohol/substance use status		
No	91	91.9
Yes (alcohol)	8	8.1
State of having a supporter in difficult/ challenging situations		
Yes	85	85.9
No	14	8.1
Duration of the illness ($\bar{x}$=16.22±10.37)		
1-15 years	39	50.0
16-40 years	39	50.0
Number of hospitalizations ($\bar{x}$=4.10±4.95)		
0-11	64	64.6
12-28	4	4.0
Duration of attendance at CMHC ($\bar{x}$=19.11±15.56)		
1-11 months	30	30.3
12-30 months	37	37.4
36-60 months	20	20.2

CMHC=community mental health centers

Table 2.
Patients' Healthy Lifestyle Scale Sub-dimension Scores and Self-care Power Scale Scores

HLBS sub-dimensions and self-care power scale	$\bar{X}$ ± SS	Min-max
Health responsibility	20.83±5.182	9-36
Physical activity	13.69±6.548	8-32
Nutrition	19.83±5.184	9-36
Spiritual development	24.22±4.991	9-36
Interpersonal relationships	24.21±5.184	9-36
Stress management	18.73±4.808	8-32
Self-care power scale	121.98±20.846	0-140

HLBS=healthy lifestyle behavior scale

The study found no statistically significant difference between the total mean scores of the gender and the people with whom the patients lived, and the sub-dimensions of the HLBS (Table 3). The study found a statistically significant difference between age and nutrition, one of the sub-dimensions of HLBS, and found the nutrition score to be higher in those aged 50-80 compared to those aged 31-49 (p=0.020). The study found a statistically significant difference between smoking and nutrition, which is one of the HLBS sub-dimensions (p=0.028), and the nutrition score was found to be higher in non-smokers than in smokers.

The study found a significant difference between the income levels of the patients and health responsibility (p=0.024), physical activity (p=0.004), nutrition (p=0.022), spiritual growth (p=0.028), interpersonal relationships (p=0.049), and stress management (p=0.005) scores, which are all sub-dimensions of HLBS. Post-hoc analysis applied to the health responsibility (p=0.042), physical activity (p=0.021), nutrition (p=0.048), spiritual growth (p=0.049) and stress management (p=0.025) data determined that a significant difference between those with high income levels and those with medium income levels.

The study also found a statistically significant difference between the presence of a support network in crisis situations and the HLBS sub-dimensions, health responsibility score (p=0.009) and nutrition score (p=0.027). Those having a supporter in difficult/challenging situations were found to score higher in the health responsibility subdimension than those who did not have a supporter. In addition, those having a supporter in difficult/challenging situations were found to score higher in the nutrition sub-dimension than those who did not have a supporter. A statistically significant difference was found between the duration of illness and the health responsibility score, one of the HLBS sub-dimensions (p=0.021), and between the frequency of coming to the CMHC and the physical activity score, one of the HLBS sub-dimensions (p=0.013) (Table 3). Post-hoc analysis of the data of the frequency of CMHC attendance determined that a significant difference was between those with 12-30 months of frequency in coming to CMHC and those with 30-60 months of frequency (p=0.039).

Table 3.
Comparison of the Total Mean Scores of the HLBS Sub-dimension and Self-care Power Scale According to the Descriptive Information of the Patients (n=99)

Descriptive information	n	Health responsibility $\bar{x} \pm SD$	Physical activity $\bar{x} \pm SD$	Nutrition $\bar{x} \pm SD$	Spiritual growth $\bar{x} \pm SD$	Interpersonal relationships $\bar{x} \pm SD$	Stress management $\bar{x} \pm SD$	Self-care power $\bar{x} \pm SD$
Gender								
Female	34	21.18±5.28	14.76±8.08	20.29±5.08	24.76±4.99	25.00±4.47	18.62±4.53	18.62±4.53
Male	65	20.65±5.15	13.13±5.55	19.58±5.25	23.94±5.00	23.80±6.63	18.78±4.97	18.78±4.97
p=		0.804	0.671	0.231	0.416	0.137	0.894	0.256
Age*								
31-49	31	19.55±5.74	14.20±8.13	18.45±5.48	23.68±5.48	23.03±5.29	17.77±4.28	117.13±23.76
50-80	68	21.41±4.83	13.47±5.77	20.46±4.95	24.47±4.77	24.75±6.23	19.16±4.99	124.19±19.15
p=		0.173	0.843	0.020	0.470	0.339	0.236	0.379
Income level**								
Good	19	24.05±6.03	18.63±9.12	22.58±5.61	27.00±6.06	26.42±5.84	21.05±5.10	129.74±23.60
Moderate	61	20.20±4.48	12.20±4.92	19.08±4.77	23.54±4.23	24.15±5.88	17.49±3.65	120.05±17.34
Bad	19	19.63±5.37	13.56±5.82	19.47±5.36	23.63±5.38	22.21±5.98	20.37±6.45	120.42±26.97
p=		**0.024**	**0.004**	**0.022**	**0.028**	**0.049**	**0.005**	0.069
People they live with**								
Alone	10	20.30±5.71	14.90±3.98	19.40±5.48	23.00±4.80	22.20±5.55	19.20±5.77	126.10±24.17
With his/her own family	63	20.62±5.40	13.05±6.76	19.51±5.43	24.59±5.34	24.40±6.47	18.81±4.48	119.92±21.97
With his/her spouse and children	12	22.67±4.61	14.08±6.34	21.33±4.53	23.92±3.47	24.17±5.06	16.83±3.83	127.83±15.96
Other	14	20.57±4.36	15.36±7.33	20.29±4.56	23.71±4.82	24.86±4.83	19.64±6.19	123.29±16.94
p =		0.583	0.254	0.521	0.864	0.619	0.564	0.275
Status of smoking*								
Yes	34	20.33±5.46	13.44±5.08	18.63±4.83	23.54±5.11	23.80±7.35	19.37±5.34	115.98±23.29
No	65	21.26±4.93	13.91±7.61	20.87±5.29	24.81±4.85	24.57±4.50	18.17±4.26	127.19±17.02
p=		0.598	0.592	**0.028**	0.230	0.437	0.201	**0.007**
Status of having a supporter in difficult/challenging situations *								
Yes	85	21.31±5.33	14.15±6.83	20.26±5.26	24.48±5.10	24.56±6.10	19.06±4.87	123.66±21.16
No	14	17.93±2.84	10.93±3.49	17.21±3.88	22.64±4.01	22.07±4.77	16.71±3.95	111.79±15.89
p=		**0.009**	0.100	**0.027**	0.225	0.121	0.122	**0.009**
Duration of the illness*								
1-15 year	39	19.90±5.04	13.38±7.13	18.79±4.81	23.64±5.06	23.41±4.47	17.95±4.19	121.95±16.24
16-40 year	39	22.18±4.17	13.38±0.09	20.90±5.27	24.49±4.74	25.38±6.91	19.36±5.62	123.28±20.85
p=		**0.021**	0.988	0.066	0.518	0.264	0.443	0.656
Duration of attendance at CMHC								
1-11 months	30	21.03±5.41	12.60±4.65	20.37±6.52	23.73±4.16	24.70±4.66	18.43±5.17	122.17±16.01
12-30 months	37	20.14±4.02	11.89±5.43	18.65±3.45	24.05±5.02	24.65±6.79	18.51±4.43	122.41±17.99
36-60 months	20	22.80±5.42	16.15±6.26	21.15±5.43	25.90±5.27	24.65±5.56	20.45±5.26	130.50±21.29
p=		0.185	**0.013**	0.213	0.277	0.805	0.260	0.313

**=Mann-Whitney U test, **=Kruskall-Wallis tests, HLBS=healthy lifestyle behavior scale, CMHC=community mental health centers, SD=standard deviation*

Table 4.
The Relationship Between Patients' Healthy Lifestyle Scale Sub-dimension Scores and Self-care Power Scale Scores

HLBS sub-dimensions		Self-care power scale
Health responsibility	p	0.599**
	r	0.000
Physical activity	p	0.309**
	r	0.000
Nutrition	p	0.460**
	r	0.000
Spiritual development	p	0.579**
	r	0.000
Interpersonal relationships	r	0.503**
	p	0.000
Stress management	r	0.536**
	p	0.000

***=p<0.01, HLBS=healthy lifestyle behavior scale*

In the study, a statistically significant difference was found between smoking and the total score of the self-care power scale (p=0.007). Self-care power score was found to be higher in non-smokers than in smokers. In addition, a statistically significant difference was found between having support in difficult/challenging situations and the total score of the self-care power scale (p=0.009). Self-care power score was found to be higher in those with supporters than those without. No statistically significant difference was found between the patients' gender (p=0.256), income level (p=0.069), people they live with (p=0.275) and the total score of the self-care power scale (Table 3).

There is a medium positive significant relationship between health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, stress management score of HLBS sub-dimensions and self-care power score (respectively r=0.599, 0.309, 0.460, 0.579, 0.503, 0.536 p<0.01) (Table 4).

Discussion

In this study, important data on self-care power and healthy lifestyle behaviors of persons with severe mental illness were obtained. It is seen that the patients got the highest average from the healthy lifestyle scale from the spiritual development and interpersonal relations sub-scales, and the lowest average was physical activity. In addition, patients scored close to the maximum on the self-care power scale. One of the important results of this study is that as individuals' healthy lifestyle behaviors score increases, their self-care power score also increases.

When descriptive features are considered in terms of dependent variables, individuals over the age of 50 have high nutritional scores; those with a high income level had a high score in all dimensions of the healthy lifestyle scale and the self-care power scale; the score of the scale of nutrition and self-care power was high in non-smokers; those who have support in difficult situations have high health responsibility and nutrition subscale scores and self-care power scale scores; those who have been sick for 16-40 years have a high health responsibility subscale score; the physical activity levels of those who attended CMHC for more than 2 years were found to be high. Gender, young age and people with whom they live did not differ in terms of healthy lifestyle scale and self-care power scale scores, it was determined that they were similar.

A literature review shows only one study using the same scale about the healthy lifestyle with persons with severe mental illness. In the study of Erginer and Günüşen (38), the highest scores in the healthy lifestyle scale were found in the spiritual development, interpersonal relationships and nutrition sub-dimensions, and the lowest scores were in the physical activity sub-dimension. The results of the two studies were parallel to each other. Taş and Buldukoğlu (21) determined that individuals with schizophrenia mostly define themselves according to their spiritual characteristics in the dimension of "self-concept". The literature reveals that self-respect increases as the level of religiosity increases in adults (35) and that spiritual beliefs have an important place in the lives of patients with schizophrenia, adding meaning and purpose to their lives (39). The fact that the spiritual growth mean score was higher in this study suggests that most patients live with their families; that personal support is spiritually important in their lives; and that 85.9% of them have support in their difficult/challenging situations. It was determined that there was no difference between spirituality and other descriptive variables except income level. The level of interpersonal relations sub-dimension was found to be higher than the other study in the literature (38). Interpersonal relations determine the communication of the individual with his or her immediate environment. This study considers the high interpersonal relations scores to result from active patient participation in psychosocial skills training, work and occupational therapies, and individual and group therapies in CMHC; and from counseling and rehabilitative nursing services received.

Studies have shown low physical activity levels in psychiatric patients. Psychiatric patients can lead a negative life such as sedentary life, constant sleepiness, and self-alienation, often resulting in internalizing the effects of the disease increased introversion (40,41). Studies have shown that patients with schizophrenia are less physically active and have a sedentary lifestyle compared to the general population, and as a result, they are at risk of increased body mass index (BMI) and metabolic syndrome (42-44). Planned and professional exercises applied to psychiatric patients seem to be effective in both weight loss and BMI reduction, which may improve negative body image caused by weight

gain as a side-effect of psychotropic drug treatment (45-48). Patients participating in physical activity programs feel better mentally, become more adaptable to drug treatment and therapeutic interventions, and experience better social functioning, less anxiety and improved sleep (34,47). In our study, only those who had a longer time to come to CMHC had a higher physical activity score. Because practices are carried out to increase physical activity in the programs of CMHC.

In this study, the fact that most patients had someone who supported them in difficult situations contributed to their taking responsibility for health and increasing their self-care power scores. Health responsibility is defined as behavior that protects health and achieves behavioral improvement. However, many studies have found that psychiatric patients have physical health problems, such as hypertension, diabetes, glucose abnormalities, low exercise level, alcohol, and drug use (1,9,49). According to these results, it can be said that the level of health responsibility of psychiatric patients is not good, and they need support.

The nutritional score was found to be high in those aged 50-80, with good income, non-smokers and have support in tricky situations.

Studies have found that obesity rates are high in patients with severe psychiatric disorders. It is known that in addition to the negative symptoms of the disease, drug side effects and lack of physical activity, inadequate and unbalanced nutrition also contribute to this problem (13,18). This study shows that young patients, the poor, and newly diagnosed patients have nutritional problems. Nutritional problem is an issue that should be paid attention in rehabilitation programs of psychiatric patients as it causes other health problems.

It is a very remarkable result that those with a good income level have high scores on healthy lifestyle behaviors and self-care power in all areas. The relationship between poverty and health is a well-known issue in the literature. Individuals' access to health services is an important variable that determines their education and lifestyle. Patients with low-income levels, especially in CMHC, should be considered as a risky group in terms of healthy lifestyle behaviors. The fact that most of the patients in the study are not working may cause the income level to decrease, affecting the continuation of healthy lifestyle behaviors.

Patients' self-care power score is close to the maximum score. In addition, it was determined that having someone who supports them in difficult situations and non-smokers have higher self-care scores. This result reveals that psychiatry patients have high self-care power and have less difficulty in determining their self-care needs. The self-care power scores of the patients in this study were found to be higher than the four studies in the literature (19-22). Considering these scores collectively suggests that the patients participating in the study could meet their self-care needs more easily. The reason for this is perhaps that more than half of the patients live with their families, have support in meeting their self-care needs, attend CMHC regularly.

The self-care power of the individual is also closely related to the ability to meet the care needs. For this reason, evaluation of the self-care power of persons with severe mental illness inevitably becomes significant in assessing the ability to participate in society and live independently. Enabling patients to identify and fulfill their needs concerning physical activity, nutrition, interpersonal relations, stress management, spiritual growth and health responsibility will provide positive developments in self-care power.

Also, it was determined that as the healthy lifestyle behaviors score increased in individuals, the self-care power score also increased. When the literature is examined, there are no studies examining the relationship between healthy lifestyle behaviors and self-care power in persons with severe mental illness. Ensuring that the individual gains autonomy by supporting self-care is one of the basic principles of effective nursing care. The self-care skill level of the individual in all cognitive and physical functions is a factor influencing repeated hospitalizations (7,50). Self-care, if carried out effectively, makes a significant contribution to the structural integrity, functionality, and development of the individual. The self-care power of the individual is also closely related to the ability to meet the care needs (14). Therefore, self-care power has an important role in the development of healthy lifestyle behaviors of individuals. Therefore, the evaluation of the self-care power of persons with severe mental illness inevitably gains importance in ensuring their participation in society and in maintaining their lives independently. Being aware of the needs of patients in the dimensions of physical activity, nutrition, interpersonal relations, stress management, spiritual development and health responsibility that affect their self-care and providing support to the patient in the acquisition of these behaviors will also provide positive developments in self-care power.

Study Limitations

Study participants included 99 persons with severe mental illness who attended CMHCs affiliated to one training and research hospital and two state hospitals; a resulting limitation is that the study results can only be generalized to the sample of the study.

Conclusion

In this study, it was determined that as the self-care power level of the persons with severe mental illness increased, the healthy lifestyle behaviors scores increased. In the study, the nutritional score of those who are over 50 years old, those with a good income level, those who do not smoke, and those who support them in difficult situations were found to be higher. The physical activity score of those who had a long time to come to CMHC was found to be higher.

Also, it was found that the health responsibility score of those who have a supporter in troubled situations and who have a longer illness duration are higher. It is noteworthy that patients with a good income level have higher scores in all dimensions of HLBD. It has been determined that having a supporter in difficult situations and non-smokers have higher self-care scores.

High levels of healthy lifestyle behaviors in persons with severe mental illness also depend on high self-care power. Nurses working with patients; they can develop healthy lifestyle behaviors by increasing the self-care power of patients. Evaluation of poor patients, young patients, and those who do not have low support for CMHC as a risky group in terms of healthy lifestyle behaviors; in order for patients to integrate healthy lifestyle behaviors into their lives, it is recommended to increase the education of patients in CMHC and to conduct screenings examining healthy lifestyle behaviors and self-care power in persons with severe mental illness at regular intervals.

Ethics Committee Approval: Written permission was granted by the Non-Interventional Research Ethics Committee of Üsküdar University (meeting 10, October 17, 2017) and by the Southern Public Hospitals Association where the institutions hosting the study were affiliated.

Informed Consent: Written informed consent was also obtained from the participants.

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