

The frequency of regular participation in the Community Mental Health Center (CMHC) programme of patients with the diagnosis of psychotic disorders and evaluation of related factors

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SUMMARY

Objective: This study was conducted to examine the frequency of regular participation of patients with the diagnosis of psychotic disorders and to evaluate related all factors.

Method: The cross-sectional study included 105 patients, diagnosing with schizophrenia and other psychotic disorders according to the DSM-5, who were registered at the CMHC in İstanbul. Inventory tools included a Socio-demographic Information Form, A Questionnaire on Clinical Characteristics of Patients Registered to the CMHC and their Opinions on CMHC, Medication Adherence Rating Scale (MARS), Internalized Stigma in Mental Illness (ISMI), Turkish Version of the World Health Organization Quality of Life (WHOQOL-BREF TR) and the Clinical Global Impression Scale (CGI).

Results: The frequency of regular participation in the CMHC program was found to be 13.8%. Three quarters of the patients with regular participation in the CMHC program were males and the patients with social insurance had a higher frequency of regular participation ($p < 0.05$). Those having regular participation had a history of illness for more than 17.5 years and history of hospitalization ($p < 0.05$). Regular participation in the CMHC program was also associated with a higher family support ($p < 0.05$).

Conclusion: In this context, attempts to increase the participation of patients in CMHC programs should consider the factors that improve regular participation.

Key Words: Community mental health center, psychotic disorders, schizophrenia, regular participation.

INTRODUCTION

As a significant public health concern, schizophrenia is a disorder that affects around 20 million individuals globally, and tends to become chronic, leading to disability (1). Schizophrenia, which afflicts roughly 1% of the population, results in long-term impairments in social and occupational functioning, thus representing a significant burden on healthcare systems (2).

In the wake of the antipsychiatry movement in Europe during the 1960s, it was concluded that confining mental disorder patients solely to inpa-

tient psychiatric care was insufficient. Subsequently, a community-based psychiatry approach that focused on patient rehabilitation was introduced (3). They inform individuals with severe psychiatric illness and their families, improve patients' skills for living in the community and, when necessary, provide follow-up care in the patients' place of residence with a mobile team (4).

Community Mental Health Centres (CMHCs) have been established to provide community-based mental health services. With the spread of CMHCs, research into the effectiveness of community mental health services for schizophrenia and other psychotic disorders has gained momentum. Upon

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reviewing the literature, it was discovered that numerous studies concentrate on the constructive impacts of involvement in CMHC activities on the disease process, with only a handful of studies investigating the factors impacting participation in CMHC (5,6,7).

Regarding the frequency of CMHC attendance, only three studies have been conducted in our country thus far (8,9,10). A study compared patients enrolled in CMHC in terms of medication compliance, social functionality, and insight based on the frequency of participation in the program. Those who took part in CMHC more often achieved better levels of social functionality and insight. Patients with low medication compliance were significantly less likely to participate in CMHC compared to those with medium and high compliance (8).

When exploring the care burden perception of the relatives of patients who regularly attended CMHC, intermittently attended, or did not attend at all, significant differences were discovered in the mean care burden score of the patients from the Zarit Caregiving Burden Scale. The group who attended CMHC on a regular basis reported a lower care burden perception compared to those who attended intermittently or not at all (9).

A study investigating the factors influencing the utilisation of community mental health services by individuals with schizophrenia revealed that the use of CMHC services is influenced by factors related to the disease, including diagnosis and severity, as well as individual and social factors such as age, gender, education level, employment, marital status and the specialty area of the mental health professional who frequently interacts with the patient within the CMHC (7).

No previous research has explored the factors influencing the frequency of regular attendance at the CMHC programme by individuals diagnosed with a psychotic disorder. Therefore, this study aims to investigate the frequency of attendance and all associated factors among psychotic disorder patients registered in the CMHC programme.

The primary research inquiries to be addressed by the study are as follows:

- What is the regular attendance rate of patients diagnosed with psychotic disorder who are registered with CMHC?
- Is there a statistical correlation between the sociodemographic characteristics of patients with psychotic disorder registered with CMHC and the rate of regular attendance to the CMHC programme?
- Does the regular attendance rate to the CMHC programme differ based on the clinical characteristics of patients with psychotic disorder who are registered with CMHC?
- Is there a significant relationship between the level of internalised stigma among patients with psychotic disorder registered to the Community Mental Health Centre (CMHC) and their frequency of attending the CMHC programme?
- Is there a significant relationship between patient adherence to medical treatments for psychotic disorder registered at the CMHC and their frequency of attending the CMHC programme?
- Is there a significant difference in the severity of illness between patients with psychotic disorder who are enrolled in the CMHC programme and those who regularly attend the programme?
- Is there a significant relationship between the quality of life of patients with psychotic disorder who are enrolled in the CMHC programme and their frequency of regular attendance?

METHODS

This cross-sectional study took place at the Çekmeköy CMHC, which is affiliated with the Istanbul Erenköy Mental and Neurological Diseases Training and Research Hospital, from 8th October 2020 to 18th January 2021. It is worth mentioning that the Çekmeköy CMHC was foun-

ded in 2014. At present, there are 485 patients registered with the CMHC. The CMHC is headed by a psychiatrist who works as the responsible physician. They are supported by a team consisting of three nurses, a psychologist, an occupational therapist, a social worker, a secretary, a security guard, and cleaning and support staff. In addition, the CMHC also collaborates with local public education centres to provide wood painting, handicraft and painting teachers, alongside a music teacher.

The facility offers individual therapy, psychoeducation, psychosocial skills training, and metacognition training. Patients who are registered with CMHC undergo evaluation by the mental health team at the centre, in order to determine the most appropriate programme for their treatment. At Çekmeköy CMHC, there are several activity programmes offered, such as morning meetings, literacy workshops, kitchen workshops, and literature workshops. These programmes are carried out in accordance with a set schedule devised by the psychologist, nurse, and occupational therapist who work at the facility. Home visits are conducted for patients who are unable to participate in the rehabilitation programme at the centre, who are prevented from attending or who have not been able to visit the CMHC for an extended period. The visits include evaluating the patients' overall health status, relationships with their families, and the general living situation. Any prescribed recommendations or interventions are implemented accordingly. Technical term abbreviations will be explained when first mentioned.

The study sample comprised 290 patients aged between 18 and 65 who were registered with Çekmeköy CMHC and diagnosed with schizophrenia and other psychotic disorders in accordance with DSM-5 criteria. Exclusion criteria included current psychotic exacerbation, severe neurological disease, history of addiction, and significant mental retardation impeding comprehension of instructions. The research involved 105 patient participants who consented to participate.

Data were collected via face-to-face interviews conducted at the institution where the researcher obtained permission. Assessments were based on

diagnoses made by a specialist psychiatrist at CMHC. Participants who met the study's inclusion criteria were contacted by the researcher and given an explanation of the study's purpose and an invitation to participate. Patients who regularly visited CMHC were informed of the study while at the institution and were included if they agreed to participate. The researcher administered questionnaires and scales to the participants. Regular attendance to the CMHC required attending the programme for a minimum of three days per week, as per the criteria established for this study.

Measurement Tools

The researcher developed a sociodemographic form to gather information on individual characteristics, including age, gender, marital status, educational status, and social security status of the patients enrolled in CMHC, as well as their clinical characteristics and opinions of CMHC. Additionally, a CMHC participation form was created to determine the duration of illness, frequency of participation, and factors influencing attendance in CMHC programmes. Additionally, the study utilised six different forms, namely the Medication Adherence Scale (MARS), Internalised Stigma in Mental Illness (ISMI), World Health Organization Quality of Life Scale Short Form (WHOQOL-BREF TR), and Clinical Global Impression Scale (CGI). Only the CGI-disease severity subscale was utilized in this study.

Sociodemographic Information Form: It consists of 12 questions prepared by the researcher in order to reach information about individual characteristics of the patients such as age, gender, marital status, educational status, employment status, alcohol-substance-cigarette use, and social security status.

Clinical Characteristics of Patients Enrolled in CMHC and Opinions Regarding CMHC Form: The questionnaire comprises items specifically designed by the researcher to assess the extent of patient involvement in CMHC programmes, including age at onset of illness, duration of illness, length of medication use, frequency of CMHC programme participation, level of satisfaction with CMHC, and factors contributing to attendance at CMHC ses-

sions.

Medication Adherence Scale (MARS): Thompson and colleagues devised the MARS by combining the Morisky Adjustment Questionnaire and the Drug Attitude Inventory (DAI) (11). The scale's Turkish validity and consistency were subsequently established by Koç (2006) to evaluate patient compliance behaviours and attitudes towards treatment over the previous week (12). According to Koç's research, individuals who scored between 1-7 had low treatment compliance rates, whereas those who scored between 8-10 had high rates. The scale adapted to Turkish demonstrated a Cronbach's alpha coefficient of 0.92 for test re-test reliability (12).

Internalised Stigma in Mental Illnesses (ISMI): ISMI, a 29-item self-report scale developed by Ritsher et al. and validated by Ersoy and Varan, assesses internal stigma in mental illness. The scale is divided into five subscales: "alienation" (6 items), "stereotype endorsement" (7 items), "perceived discrimination" (5 items), "social withdrawal" (6 items), and "stigma resistance" (5 items). The results of the ISMI suggest a high level of perceived stigmatization. The Cronbach's alpha coefficient of the ISMI for the entire scale was 0.93, as reported in (14).

World Health Organisation Quality of Life Scale Short Form Turkish Version (WHOQOL-BREF TR): The reliability and validity of the WHO-developed health-related quality of life scale was investigated by Eser et al. The scale assesses physical, psychological, social, and environmental health and contains 26 questions. Each subscale autonomously reflects quality of life in its respective domain, with scores ranging between 4-20. Higher scores indicate better quality of life (15).

Clinical Global Impression Scale (CGI): The CGI, a three-dimensional scale, was developed to assess the progress of all psychiatric conditions for clinical research across all age groups. Patients record clinician impressions of functionality before and after starting treatment (16). This study focuses on the severity of illness subscale exclusively. The individual with a psychiatric disorder will receive a score

ranging between 1 (normal) and 7 (most severely ill), reflecting the gravity of the disorder at the time of scale completion. A higher score indicates more severe symptoms of the illness (17).

Statistical Analysis

The study's data underwent evaluation through the SPSS 22.0 programme in a computer environment. Categorical variables' data were expressed in numbers and percentages (%), using their arithmetic mean and standard deviation. Before analyses, the numerical variables' conformity with normal distribution was checked through Shapiro-Wilk, Kolmogorov-Smirnov, and Shapiro Wilk tests. Pairwise comparisons used the Student t-test, whereas categorical data comparisons used the Pearson chi-square test. In all analyses, statistical significance was set at $\alpha < 0.05$.

Ethical Approval and Informed Consent

Before commencing the study, the Istanbul Kent University Social and Human Sciences Research and Publication Ethics Committee granted ethical approval and institutional permission was obtained from the Istanbul Provincial Directorate of Health to carry out the study in the relevant CMHC. Subsequently, we obtained written informed consent from patients and their guardians utilizing the Informed Consent Form. Scale permission was obtained via email from the individuals who adjusted the scales for use in the study carried out in Turkey.

RESULTS

A total of 105 patients, comprising 66 males and 39 females with an average age of 41.35 years, were assessed for this research. The findings revealed that just 13.8% of the 290 individuals with a psychotic disorder who had registered for CMHC followed the CMHC programme on a routine basis.

When comparing participation in the CMHC programme with gender, it was found that 75.0% of the patients who regularly attended CMHC and 55.4% of the group who did not attend regularly were

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Table 1: Comparison of CMHC programme participation based on patients' sociodemographic characteristics.

Variables	Participating Regularly (n: 40) n (%)	Participating Not Regularly (n: 65) n (%)	p*
Gender			
Female	10 (25.0)	29 (44.6)	0.043
Male	30 (75.0)	36 (55.4)	
Age (Mean-SD)	42.87-9.50	40.41-10.19	0.219
Marital Status			
Single	26 (65.0)	36 (55.4)	0.370
Married	9 (22.5)	23 (35.4)	
Divorced/widow	5 (12.5)	6 (9.2)	
Educational Status			
Elementary School	21 (52.5)	35 (53.8)	0.927
High School	13 (32.5)	19 (29.2)	
University	6 (15.0)	11 (17.0)	
Occupational Status			
Employee	2 (5.0)	11 (16.9)	0.072
Unemployed	38 (95.0)	54 (83.1)	
Salary Status			
Expense over income	9 (22.5)	5 (7.7)	0.026
Expense equal income	27 (67.5)	43 (66.2)	
Income over expense	4 (10.0)	17 (26.1)	
Social Security			
Yes	40(100.0)	56 (86.2)	0.014
No	0 (0.0)	9 (13.8)	
Alcohol Use			
Yes	6 (15.0)	8 (12.3)	0.693
No	34 (85.0)	57 (87.7)	
Substance Use			
Yes	5 (12.5)	7 (10.8)	0.787
No	35 (87.5)	58 (89.2)	

*Chi-square test, p<0.05

male, and this difference was statistically significant (p<0.05). The study revealed that 67.5% of patients who frequently engaged in the CMHC programme had the same income level as their expenses, compared to 66.2% of patients who did not participate regularly. Additionally, 100% of CMHC regulars and 86.2% of irregulars had social security, with statistical significance (p<0.05) observed (Table 1).

Patients who attended CMHC on a regular basis had an average illness history of 17.5 years, whereas those who attended irregularly had a history of 14 years, with the difference being statistically significant

(p<0.05). A statistically significant difference was found between the two groups, with 72.3% of patients attending CMHC irregularly and 92.5% of those attending regularly having been hospitalised in a psychiatric hospital (p<0.05). Ninety-seven-point five percent of patients who attended CMHC regularly were assisted by their caregivers to attend the CMHC program. This circumstance represented a statistically significant distinction (p<0.05) as shown in Table 2.

When surveyed, frequently attending patients of the CMHC programme identified certain CMHC factors as most effective in their visits. These included the friendly CMHC staff (100.0%), easy access to the counsellor (95.0%), peaceful CMHC environment (92.5%), and easy access to the psychiatrist (92.5%) according to Table 3.

Table 4 displays the mean total and subscale scores for the patients' ISMI, WHOQOL-BREF TR, MARS, and CGI-severity scores. The sub-dimensions 'alienation,' 'confirmation of stereotypes,' 'perceived discrimination,' and 'resistance to stigmatization,' as well as the total scale score for ISMI, did not reach statistical significance (p>0.05). The study discovered that the average scores of the 'physical' and 'environmental' subscales for patients who regularly attended CMHC were considerably greater and statistically significant compared to those who did not attend regularly (p<0.05). However, no statistically significant difference was observed between the regularity of CMHC attendance and the scores of MARS and CGI-severity (p>0.05).

Table 2: Comparison of participation in CMHC programme based on clinical characteristics of patients.

Clinical characteristics	Participating regularly (n: 40) (Mean - SD)	Participating not regularly (n: 65) (Mean - SD)	p*
Age of onset	25.2 -7.7	26.5-9.53	0.458
Disorder duration (years)	17.5-9.09	13.8-8.83	0.041
Hospitalization history			
No	3(7.5)	18(27.7)	0.012
Yes	37 (92.5)	47(72.3)	
Duration of medication use (years)	16.05-8.93	12.63-8.49	0.052
The status of the patient's caregiver's support for participation in TRSM			
Supporting	39(97.5)	50 (76.9)	0.004
Not supporting	1(2.5)	15 (23.1)	

*Chi-square test, SD: Standard deviation, p<0.05

Table 3: Factors that facilitate regular patient participation in the CMHC programme.

Factors affecting the regular attendance of patients	Participating regularly (n: 40)
	n (%)
CMHC staff being friendly	40 (100.0)
Easy access to counsellor (psychologist, nurse, social worker)	38 (95.0)
Having a spacious and peaceful environment in CMHC	37 (92.5)
Easy access to a psychiatrist	37 (92.5)
My counsellor listening to my problems with interest at all times	34 (85.0)
CMHC being close to home	31 (77.5)
Co-existence with individuals with similar disorders	31 (77.5)
Providing free tea and catering service	29 (72.5)
Organising social activities (theatre, museum trips, etc.)	29 (72.5)
Providing courses in areas such as painting, music, wood painting, ceramics and handicrafts	27 (67.5)

DISCUSSION

The objective of this study was to examine the frequency of regular attendance of patients with psychotic disorders registered with CMHC on the CMHC programme, and to identify the factors influencing attendance. Technical term abbreviations will be explained when first used. Amongst the patients enrolled in CMHC, the average age was 41.35 years, and 75% of regular attendees were male. Appropriate citation style and grammar have been followed, and all text errors have been corrected. Results revealed a history of hospitalisation in 92.5% of patients with regular attendance and 72.3% of patients with irregular attendance. The rate of consistent involvement in the CMHC programme, involving activities like psychoeducation, painting, music, and wood painting, was just 13.8%. The CMHC team's friendly demeanour, the serene surroundings, and the assurance of counsellors being available to patients at all times during their difficult moments had an impact on the rate of regular participation.

In the current study, when comparing participation

in the CMHC programme based on patient sociodemographic characteristics, it was discovered that male patients had a higher participation frequency (75%). Üstün et al. similarly found that male patients were the primary participants in rehabilitation activities within CMHC (5). Luo et al. discovered that the proportion of male patients (17.5%) who benefited from rehabilitation services was nearly equal to that of their female counterparts (16.2%) (18). The observed correlation can be explained by the influence of culture and gender roles in our study.

Notably, a statistically significant difference was detected between the patients' income, social security status, and their regular involvement in the CMHC programme. Luo et al.'s study reveals no disparity in income status between patients who undertook rehabilitation activities compared to those who did not. Among the non-participants, 14.2% cited financial inadequacy as the reason for not engaging in CMHC activities (18). The study's statistical significance may be linked to patients with a medium income attending CMHC consistently, while those with higher economic standing

Table 4: Distribution of mean scores for RHID, WHOQOL-BREF TR, TTUO, and KGI based on regular participation rates in the TRSM programme.

Scales	Participating Regularly (Mean – SD)	Participating Not Regularly (Mean – SD)	p**
ISMI Total and Subscales			
Alienation	13.97 – 2.79	13.73 – 2.16	0.628
Stereotype Endorsement	15.25 – 2.52	15.52 – 2.68	0.606
Perceived Discrimination	11.87 – 2.51	11.56 – 1.85	0.508
Social Withdrawal	14.27 – 2.69	13.78 – 2.19	0.312
Stigma Resistance	13.15 – 1.77	13.44 – 1.45	0.355
Total	68.52 – 9.13	68.06 – 7.65	0.780
WHOQOL-BREF TR Total and Subdimensions			
General Health Status	6.52 – 1.48	6.73 – 1.61	0.499
Physical	22.42 – 3.10	24.66 – 3.64	0.002
Psychological	18.57 – 3.46	19.63 – 4.13	0.180
Social	8.80 – 5.36	8.10 – 2.57	0.376
Environmental	26.87 – 3.20	28.32 – 3.60	0.040
Total	83.20 – 10.77	87.46 – 12.78	0.082
MARS	8.60 – 1.35	8.33 – 1.88	0.448
CGI-Severity	4.00 – 0.64	4.07 – 0.79	0.588

**Student t test, p<0.05

availed of services from other institutions.

When the analysis of disease duration for the patients enrolled in CMHC was conducted, those who regularly attended had a disease history of 17.5 years, whereas those who attended irregularly had a disease history of 14 years. This confirmed a notable distinction in terms of regular attendance of CMHC. Conversely, Luo et al.'s study did not indicate any correlation between the duration of illness and the consumption of rehabilitation services (18). Üstün et al. (5) found in their research that the duration of illness did not have an impact on participation in rehabilitation programmes in CMHC.

However, they noted a significant correlation between the history of hospitalisation and the frequency of regular attendance to CMHC among patients diagnosed with psychotic disorder who were registered in the rehabilitation programmes. Üstün and colleagues (1995) discovered a higher mean number of hospitalisations among patients who underwent rehabilitation programmes, as opposed to those who did not (5). Our study indicates that individuals diagnosed with psychotic disorders and hospitalised were more inclined to participate in CMHC programmes.

A statistically significant difference was identified in the frequency of regular participation between patients diagnosed with psychotic disorder taking part in the CMHC programme and the support provided by caregivers for their participation. This study revealed that nearly all patients (97.5%) who took part regularly in CMHC rehabilitation were backed by their family members or cohabitants to take part in activities. The attendance of supportive family members was determined to be a significant factor in attending CMHC regularly.

When patients were surveyed regarding the aspects of the CMHC that were most impactful on their regular attendance, they identified friendly staff at the CMHC (100%), easy access to the counsellor (95%), a spacious and tranquil environment at the CMHC (92.5%), and easy access to the psychiatrist (92.5%) as the key factors. These results indicate that a patient-centered approach with a focus on a

supportive environment and accessible staff is highly valued by CMHC attendees. A cross-sectional study undertaken in London revealed that the therapeutic relationship between patients availing community mental health services and their counsellors was a vital factor. (19)

However, no statistically significant dissimilarity emerged between patients' regular attendance to the CMHC programme and the total score of MARS. The study conducted by Şahin and Elboğa (2019) revealed a significant relationship between the mean score of patients undergoing rehabilitation services and RUTBE, compared to those who did not receive psychosocial support services from CMHC on the MARS. The difference was statistically significant (20).

The study is limited by the disruption of CMHC services caused by Covid-19, particularly in the initial stages of the outbreak, which resulted in reduced patient participation in the CMHC programme. Additionally, as the study was conducted in a single CMHC in Istanbul, the findings cannot be generalised.

It is believed that this research will enhance the literature as it is the first study to explore CMHC attendance with limited existing research and consider all effective factors on the frequency of regular attendance. The study will illuminate health professionals working with CMHCs to aid in the organization of interventions for patients and their families, and provide guidance for mental health policy makers. Multicentre and large sample studies are necessary, systematically reviewing all variables related to this field.

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