

THE USE OF MEDICAL SERVICES BY THE PATIENTS WITH MENTAL HEALTH ISSUES

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Abstract: Objective: The aim of this study was to examine the degree of use of general medical services among persons with a mental illness from the district of Cluj in 2010. Methods: A total of 370 persons with a mental illness were identified through the ICD-10 classification codes in the database of the Health Insurance Company from Cluj that used general health services in the district of Cluj in 2010. Use of general health services were compared based on age group, sex and urbanicity. Results: The patients included in the study used on average 28 times the general health services. Women, the patients aged 41-60 years and the patients from urban areas used most the services. Conclusions: Use of health services for general medical problems differed between men and women, age group and urbanicity. These socio-demographic factors should be considered when evaluating the need for community mental health services.

Cuvinte cheie: sănătate mintală, utilizare servicii medicale

Rezumat: Obiectiv: Studiul a-i-a propus să evidențieze gradul de utilizare a serviciilor medicale generale în județul Cluj în 2010 de pacienți cu probleme de sănătate mintală. Metodă: Au fost selectați 370 de pacienți cu diagnostic de boală mintală, conform clasificării ICD-10, care au apelat la servicii medicale generale în județul Cluj în 2010. Utilizarea serviciilor medicale a fost comparată factorizat după sex, vârstă și domiciliu. Rezultate: Pacienții din studiu au accesat în medie de 28 de ori serviciile medicale generale. Cele mai multe servicii au fost utilizate de către femei, pacienții cu vârsta între 41-60 de ani și de către cei din mediul urban. Concluzii: Gradul de utilizare a serviciilor medicale a diferit semnificativ între femei și bărbați, între grupurile de vârstă și în funcție de domiciliu. Acești factori socio-demografici trebuie luați în considerare într-un demers de evaluare a nevoii de servicii de sănătate mintală în comunitate.

INTRODUCTION

Psychiatric disorders are among the top causes in the world of disease burden and disability both for the patients suffering from them and their families. WHO envisages that, by 2020, the burden of psychiatric disorders will increase and represent 15% of the total Disability Adjusted Life Years lost due to all diseases and injuries (1). References present increased morbidity and mortality for patients with chronic mental health problems (2). There has been signaled interdependency between the existence of psychiatric and somatic disorders, that is, the presence of conditions from one category increases the risk of appearance of conditions in the other (3).

Knowledge on how to provide effective mental health services, with a positive impact on general health services utilization, has become imperative worldwide (4). In the literature are presented mixed observations concerning the use of general health services by mental health patients. More frequent utilization of emergency services by patients with severe and persistent mental health conditions, compared with the general population, was reported (5). One study, that included persons with psychoses, demonstrated a high degree of utilization of the emergency and medical offices services (6) while other data showed a higher use of health services in comparison with the general population (7). Additionally, mental health patients presented longer hospitalization periods

as opposed to non-psychiatric patients (8).

Use of general health services by patients with mental health problems brings a higher economical burden to the health system. We should ask ourselves how mental health systems can be reorganized, in order to limit the use of general medical services, thus obtaining a better allocation of resources, especially in the less economically-developed countries. Documenting the extent of use of general health services by mental health patients could be a first step in the evaluation of the dimension and nature of unanswered needs in the mental health system, in the process of reorganization of the latter. The present study analyzed the degree of utilization of general health services by mental health patients and searched for correlations between utilization and certain socio-demographic characteristics.

THE AIM OF THE STUDY

The retrospective study examined the utilization rate of general (non-psychiatric) health services in the district of Cluj, from January 1st – December 31st, 2010, by mental health patients.

MATERIAL AND METHOD

Sample: 370 from the total of 10.382 mental health patients that benefited from general health care all along year

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2010. Out of the database, that encompassed 63.223 repetitive recordings, a representative sample of 370 patients was selected. This selection corresponded to a representation of $\pm 5\%$. The inclusion criteria were the following, in this order:

1. Use of clinical non-psychiatric services (hospitalization, outpatient consultations) (70.33%): 1.1. Clinical services are specified (97.05%); 1.2. Clinical services are not specified (2.94%); 1.3. Proportion of repetitions (ID of patients that correspond to the above criteria is repeated, but with a different number of repetitions)

2. Use of non-clinical services (laboratory and exploratory tests) (26.67%): 2.1. Clinical services are specified (13.98%); 2.2. Clinical services are not specified (86.01%); 2.3. Proportion of repetitions.

Sampling principle: the 370 subjects selected based on the above mentioned criteria were distributed as follows: 260 patients that have accessed clinical services (252 – clinical services accessed, 8 – no clinical services accessed) and 110 that have accessed non-clinical services (15 – have accessed clinical services, 95 – no clinical services accessed). The sample had no repetitions, but priority was given to the subjects with repetitions in the target group, ordered descending by repetition.

Data sources: data were obtained from the Health Insurance Company from Cluj District, after approval of its' ethical commission. For all patients with primary or secondary diagnosis ICD-10 codes (F00-F99) the following data were collected:

- Socio-demographic data: gender, age, urbanicity
- Health services utilization data: hospitalization – number, length of stay, department; outpatient services - number and type of consultations (including to the family physician); non-clinical services (laboratory and exploratory) – number and type.

Analysis: Data analysis was carried out with SPSS version 16; were used descriptive and correlation analysis, comparison of the centrality tendencies, variance ANOVA and

co-variance ANCOVA analysis. Contingency tables were created to search statistically significant correlations and chi-square test was used to associate variables. Alpha = 0.05 was established as threshold of statistical significance for the accepted level of risk ($p\text{-value} < \alpha$ relevant for the region of statistical significance).

RESULTS

General health services utilization frequency was analyzed for the sample, firstly without factorization, secondly with gender, age and urbanicity factorization. Within the sample, without factorization, the average service utilization rate was 28, 50% of patients had between 8 and 35 service accesses.

The analysis based on gender factorization showed an average utilization rate of 39 per patient for women, 50% between 14 and 47, whereas men utilized on average 14 times the health services, the majority (50%) between 7 and 17.

Table 1 shows statistically significant difference ($p=0.001 < 0.05$, for an accepted risk of 5%) between rates of utilization by men and women. On average, women had a significantly higher utilization rate than men.

The analyze of the utilization rate based area of domicile (urban vs. rural) showed that mental health patients from rural areas accessed on average 14 times the health services (50% of them used between 5 and 16 times the services) whereas in the urban sub-group the average utilization rate was 27, with the majority of patients (50%) using the services between 9 and 35 times.

The average tendencies of health service utilization in the urban – rural sub-groups presented statistically significant differences (urban mean = 27, rural mean = 14, $p\text{-value} \ll 0.05$).

Table no. 1. Comparison between average tendencies of service use between women and men sub-samples

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Nr. of services	Equal variances assumed	19.551	.000	4.850	170	.002	25.327	5.222	15.019	35.635
	Equal variances not assumed			4.476	86.922	.001	25.327	5.658	14.080	36.574

Table no. 2. Values of health services use compared based on age

Age category		<20 years	21-40 years	41-60 years	>60 years
Variables					
N	Valid	51	30	121	85
	Missing	0	0	0	0
	Mean	12	8	18	16
	Std. Deviation	11	9	24	18
	Minimum	1	1	1	2
	Maximum	57	42	162	148
Percentiles	25	5	3	5	7
	75	18	10	21	20

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Majority of utilization rates (50%)	5-18	3-10	5-21	7-20
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The average tendencies of health service utilization in the urban – rural sub-groups presented statistically significant differences (urban mean = 27, rural mean = 14, $p\text{-value} \ll 0.05$).

Frequency of health services use based on the variable age is presented in table 2.

The ANOVA comparison of average tendencies of utilization rates factorized by age category showed statistically significant differences between the four age groups ($p=0.032 < 0.05$). The age category with the highest service utilization rate was the one between 41-60 years.

DISCUSSIONS

The study showed that mental health patients access the general health services in average 28 times in one year. Some literature data show that the general population uses in average the general health services 1.7 times per year (9). Data collected from the regional hospitals from Cluj-Napoca for the period January 1st - December 31st, 2010, show that, in average, one patient utilized 2.5 general health services (continuous hospitalization, day hospital, consultations and sets of laboratory tests). The difference between the general population and mental health patients can be considered an economic burden for the health system by the studied patient group, burden that could be reduced only if efficient mental health services were available.

The correlations based on socio-demographic characteristics factorization correspond to the literature data. Women use more health services than men, even though men fulfill more frequently the criteria to develop a mental health condition during their lifetime (10). Men utilize more mental health services than women (9) thus a possible explanation for less use of general health services. Some studies show that women visit the family doctor's practice more frequently than men (11, 12). Family doctors are predisposed to treat women with mental health problems while they refer men to the psychiatry specialist (13), another explanation for the differences in service utilization mentioned above. It would be useful to study if an increased utilization of family doctor's services by mental health patients brought benefits or even economies in comparison with solely the use of mental health services.

The age group with the highest health services utilization was the one between 41-60 years. This observation is generally interpreted in the context of existing barriers for access to community mental health services (14) that, subsequently, facilitate the access to general medical services of some age groups. One aspect studied in the literature is the expressed needs of mental health patients, that differ based on age. Young persons have less expectations regarding the use of medical services (15), older persons perceive acutely the stigmatization due to their mental health condition (16), both observations contributing to the reduced use of health services in the afore mentioned age groups.

Mental health patients from urban areas used more health services compared to the ones from rural areas. In the urban areas the offer of health services is bigger so, implicitly, the access to such services is facilitated, fact that in general raises a problem of equity in the health system (17).

The results of the study should be interpreted bearing in mind some limitations: we included variables such as clinical services (outpatient and inpatient) and non-clinical services (laboratory and exploratory tests) without studying the relationship between the socio-demographic variables (age, gender, urbanicity) and the type of service utilized. There have

been no analyses performed regarding the relationship between the mental health diagnostic and the type of mental health care received (outpatient, community mental health center, psychiatric hospital) and the type of general health service utilized. This study wanted to be a first step towards the creation of an informed decision making model for resource allocation, towards the development of community mental health services, according to the tendencies from other national health systems that try to find solutions in this respect (18).

CONCLUSIONS

Mental health patients use on average more general health services than the general population. The degree of utilization of the medical services differs significantly depending on age, gender and urbanicity.

There is a need for further studies regarding the relationships between general health services utilization, in detriment of mental health services use, in the context of the Romanian health system. Research as such could contribute to decision making processes regarding the increase of competencies of the health staff and system, as a whole, for the early recognition of mental disorders and prompt referral to specialized mental health services. Another aspect to restructure the mental health services, according to the international tendencies, with accent placed on community services. These services are more economic, have a higher patient absorption capacity, a higher capacity to early recognize and monitor mental health conditions. Community mental health services aim to keep the mental health patient as much as possible in the community, with a maximum degree of independence and comfort, without unnecessary consumption of health services, general or specialized.

The socio-demographic factors included in the present study should be considered when creating a sample of patients whose needs should be at the fundament of informed decision making towards creation of community mental health services. The tool for such a decision making process, adapted to the particular situation of any community, could be a complex, standardized, model that takes into account the needs of both patients and other stakeholders (health professionals, decision making bodies, authorities, etc.) and the offer of existing services.

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