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ORIGINAL ARTICLE / *ARTIGO ORIGINAL*

Psychiatric admission and readmission in a general hospital of Porto Alegre: sociodemographic, clinic, and use of Network for Psychosocial Care characteristics

Internações e reinternações psiquiátricas em um hospital geral de Porto Alegre: características sociodemográficas, clínicas e do uso da Rede de Atenção Psicossocial

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ABSTRACT: ***Introduction:*** The revolving door phenomenon is characterized by repeated and frequent psychiatric readmissions. ***Objective:*** We aim to investigate sociodemographic, clinic, and follow-up characteristics in health services associated to psychiatric admissions and readmissions of inpatients in a general hospital of Porto Alegre. ***Methods:*** It is a cross-sectional study with a sample of 96 participants. ***Results:*** More than half of the sample (53.1%) were female, 51% were single, and the average age was 44.3 years old. From clinic data, 36% (n = 35) of the users were in their first admission, and 36% (n = 35) met the criteria for frequent readmission. The results show that users with frequent readmissions significantly mentioned fewer people on whom they could rely. Alternatively, users in first admission lived with a significant larger number of people than the rest of the sample and had, with less frequency, bond with health services other than hospitals, using hospitals as an entrance door to mental health care. Regarding follow-up in the network, 34.4% of the sample did not visit often NPC services before admission, and only 4.1% used psychosocial rehabilitation services. ***Conclusion:*** We highlight the importance of hospitals as an articulation point in the network, and as strategic to connect with NPC services. In spite of international literature investigation and registration of the frequent psychiatric readmission phenomenon, we notice it is a field that needs greater investigation in Brazil.

Keywords: Mental health. Hospitalization. Patient readmission. Mental health services. Mental disorders. Psychiatric department, hospital.

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RESUMO: ***Introdução:*** O fenômeno da porta giratória é caracterizado por repetidas e frequentes reinternações psiquiátricas. ***Objetivo:*** Investigar as características sociodemográficas, clínicas e de acompanhamento em serviços da Rede de Atenção Psicossocial (RAPS) associadas às internações e às reinternações psiquiátricas de usuários de um hospital geral de Porto Alegre. ***Métodos:*** Estudo transversal realizado com uma amostra de 96 participantes. ***Resultados:*** Mais da metade da amostra (53,1%) era do sexo feminino, 51% eram solteiros e a idade média foi de 44,33 anos. Dos dados clínicos, 36,5% (n = 35) dos usuários estavam em sua primeira internação e 36,5% (n = 35) preencheram o critério para reinternação frequente. Os resultados mostraram que usuários com reinternações frequentes referiam um número significativamente menor de pessoas com as quais consideravam que poderiam contar. Já os usuários de primeira internação viviam com um número significativamente maior de pessoas que o restante da amostra e possuíam, com menor frequência, vínculo com serviço de saúde, utilizando o hospital como porta de entrada para o cuidado em saúde mental. Em relação ao acompanhamento na rede, 34,4% da amostra não frequentava nenhum serviço da RAPS antes da internação à época do estudo e somente 4,1% fazia uso de serviços de reabilitação psicossocial. ***Conclusão:*** Destacamos a importância do hospital como ponto articulador da rede e estratégico para realizar a ponte com os serviços da RAPS. Apesar de a literatura internacional investigar e registrar o fenômeno da porta giratória, percebe-se que esse é um campo que necessita de maiores investigações no território brasileiro.

Palavras-chave: Saúde mental. Hospitalização. Readmissão do paciente. Serviços de saúde mental. Transtornos mentais. Unidade hospitalar de psiquiatria.

INTRODUCTION

Ten years after the implementation of the Law of Psychiatric Reform in Brazil (Law No. 10.216)[1], reflecting a movement of unification of the devices created for mental health attention, Ordinance No. 3.088 was published[2], establishing the Network for Psychosocial Care (NPC) for people with mental distress or disorders and with needs resulting from the use of crack alcohol and other drugs. It aggregates the different services in a territorialized network, including from primary health to hospital care, reinforcing their articulation as a way to ensure the effectiveness of care. The importance of fulltime assistance and social reintegration — carried out by a multiprofessional team — is emphasized and, when hospitalization is necessary, it should be of a short duration until clinical stability of the user[2].

As for hospitalization, it is a resource considered necessary and strategic for care in moments when users are fragile and may put themselves and other at risk. Their referral is made only when out-of-hospital resources are not enough to this support. In this sense, the positioning of the Ministry of Health is to highlight data regarding beds arranged in general hospitals which, unlike psychiatric ones, allow for the management of crisis situations and attention to clinical matters, through multidisciplinary resources and with the support of other hospital technologies[3]. Taking into account the need for articulation of the remaining NPCs, the hospital is considered a "strategic point for strengthening the model based on psychosocial attention. They are services geographically located in the context of social life, territorial and easily accessible, present in many municipalities" (p. 21)[3].

In an ecological study[4] analyzing psychiatric hospitalization rates in Rio Grande do Sul between 2000 and 2011, an increased hospitalization rate was observed due to mental and behavioral disorders resulting from substance use, as well as other mental disorders. Regarding mental disorders not resulting from substance use, a rate of 159.2 hospitalizations was observed every 100 thousand inhabitants, in 2000, increasing to 193.4, in 2011, although no distinction was made between recurrent hospitalizations. Likewise, no data on psychiatric readmission rates were found in the bulletins of the Ministry of Health and Health Department (State and Municipal), though several studies indicate the occurrence of a phenomenon called revolving door.

This phenomenon is characterized by repeated and frequent psychiatric readmissions, occurred little time after hospitalization. These readmissions are characterized by different frequency criteria — number of hospitalizations and interval between them —, and there is no consensus amongst authors. A Brazilian study considers the frequency of two or more hospitalization within one year[5], as well as some international studies[6,7]. Other authors considered three or more hospitalizations, whether in a period of 12[8] or 18[9,10] months or up to 5 years[11]. Or, even, combined criteria were used: three or more hospitalizations during a lifetime, at least one hospitalization within the last year and being cared for in the hospital at the beginning of the study[12].

Some of the factors related to the phenomenon are lack or insufficient substitutive and community services and difficulty of adherence to medication and/or outpatient treatment, especially after hospitalization, which, at times, is the way into mental health care[13-15]. Other predicting factors of the revolving door are:

1. younger users[16,17];
2. single or living by themselves[5,12,18-21]; and
3. those who have less contact with their families[19,22,23].

In relation to the occurrence of frequent rehospitalizations, studies carried out in Spain[6] and in Portugal[11] found rates of 10% of readmissions of frequent users. On the other hand, a study carried out in the United States[12] showed 79.8% of these patients were new hospitalizations within the two years of follow-up of the research. In Brazil, most researches on the theme do not follow a specific criterion to characterize frequent readmissions, as is the case of studies carried out in Ribeirão Preto[19] and in Rio Grande do Norte[22], which, in the two-year period, found, respectively, rate of 34 and 60.3% readmissions. In a study carried out in São Paulo[24], 42.6% of participants hade new admissions in the year following discharge. In Piauí, in a research which used the criterion of two or more hospitalizations, Parente et al.[5] observed that 55.7% of the patients had frequent readmissions.

In a systematic review about interventions to prevent psychiatric readmissions, Vigod et al.[25] stated these readmissions indicate the fragility of health systems in coordinating assistance and offering support in the transition between hospital and other services. In addition, repeated crises increase the risk for cognitive deterioration and chronicity of the disease and the hospitalizations establish repeated breaking of bounds of users with their families and communities[13,14,22,26].

Considering the scarcity of Brazilian studies characterizing the revolving door phenomenon, despite the evidences of their occurrence in investigations carried out in different countries, the need to investigate and characterize how psychiatric readmissions in a general hospital have been occurring is justified. Thus, this research had the objective of investigating sociodemographic, clinical and follow-up characteristics of services of the NPCs associated to hospitalizations and psychiatric readmissions in a general hospital in Porto Alegre.

METHOD

This study had a quantitative observational, descriptive and analytical, cross-sectional design. Questionnaires were administered to 96 hospitalized users and beds destined for the Unified Health System (*Sistema Único de Saúde* – SUS) in the psychiatric ward of a general hospital in Porto Alegre, for six months (June to December 2015). All users older than 18 years of age were invited to take part into the research after their second week of hospitalization (given the need to reduce acute symptoms). Those who presented marked difficulty in responding the questionnaire (cases of severe cognitive deficit and marked speech difficulty which would impair the comprehension of the answers), as well as those unable to provide written consent due to the severity of their symptoms were excluded. In addition, users with main diagnosis for mental and behavioral disorders related to the use of alcohol and other psychoactive substances were not included here, being destined to another ward of the hospital. Of the total 118 people hospitalized in this period, 22 of them did not want to answer the questionnaire or were excluded from it due to any of the reasons mentioned.

Participation was voluntary, the objectives of the research were explained, the ethical aspects were exposed and possible doubts were clarified; in the sequence, all participants signed the Informed Consent. In cases in which users were considered legally incapable of agreeing to participate (interdicted ones), but who were interested in taking part in the research, their legal guardians were contacted so that the research would be explained and an authorization would be issued.

This study was approved by the Research and Ethics Committee of the *Pontifícia Universidade Católica do Rio Grande do Sul* (PUC-RS) and the co-participant hospital, respecting the guidelines and regulatory norms of research involving human beings, according to Resolution No. 466[27].

The study used dependent variables of psychiatric readmissions and first hospitalizations. The independent variables analyzed considered the following data:

1. sociodemographic: age, gender, self-declared race, education, religious practice, marital status, occupation, region of origin, whom they resided with, being part of vulnerable populations (homeless, *quilombola*, indigenous, other), already received financial aid, people they could count in (social support) and economic classification[28];

2. clinical: reason for hospitalization, diagnostic hypothesis (based on the International Classification of Diseases — ICD-10[29]), clinical and psychiatric comorbidities, treatment performed during hospitalization, contact with reference services and duration of the hospitalization, number of previous hospitalizations;
3. Use of NPC prior to the hospitalization at the time of the study: previous follow-up in health services, type of coverage (public, health insurance, private), type of service used.

The instrument was applied individually by psychologists of the research and the clinical data on patients' charts were accessed in case of information the user could not provide.

The data collected were codified, typed in, stored and analyzed with the Statistical Package for the Social Sciences (SPSS) software, version 17.0, for Windows. Initially, descriptive analyses were performed in order to get to know users hospitalized within the six-month period analyzed. Subsequently, the following groups were compared:

1. users of first hospitalization *versus* remaining sample;
2. users of frequent readmissions (criterion: two or more hospitalizations in a period of 12 months) *versus* remaining sample, except the group of first hospitalization; comparing their sociodemographic and clinical characteristics, and follow-up in NPCs, using Fisher's exact test, for the categorical variables, and Mann-Whitney test, to analyze quantitative variables.

Such analyses had the objective of, in addition to characterizing the data distribution in the sample, establishing analyses of association between the variables.

RESULTS

The results will be presented first in relation to the description of the sample as a whole, describing the sociodemographic, clinical and follow-up characteristics in the NPC of the 96 users interviewed. Subsequently, comparative analyses will be presented between first hospitalization users (n = 35) and the rest of the sample (n = 61), which had two or more hospitalizations throughout life. And, among these users, there will be a comparison between the ones who met the criteria for frequent readmissions (n = 35) and those who did not meet this pattern (n = 26).

PROFILE OF THE SAMPLE: SOCIODEMOGRAPHIC VARIABLES

Of the 96 users interviewed, 51 (53.1%) were women and the mean age of the sample was 44.33 years (standard deviation — SD = 16.13), according to Table 1. As for their education, the mean of years of study was 9.29 (SD = 4.47), 46.9% having started elementary school (8 to 11 years of study). Most participants declared being white/Caucasian (70.8%) and stated having some kind of religious creed (78.1%).

Table 1. Sociodemographic and clinical characteristics and follow-up of the sample.

Variable	n	%	
Sex			
Female	51	53.1	
Male	45	46.9	
Age (years)			
18 – 40	43	44.8	Means 44.33
41 – 60	35	36.5	Median 43
61 – 84	18	18.8	SD = 16.13
Education (from 0 to 22 years of study)			
Incomplete primary/elementary school (up to 7 years of study)	33	34.4	Mean 9.29
High school (from 8 to 11 years of study)	45	46.9	Median 9.0
Graduation (up to post-graduation) (more than 12 years)	18	18.8	SD = 4.47
Marital status			
Does not have a partner	74	77.1	
Has a partner	22	22.9	
Economic classification criterion			
B (B1 and B2)	35	36.5	
C (C1 and C2)	53	55.2	
D and E	8	8.3	
Receive financial aid			
Continuous benefit	7	7.3	
Retirement	29	30.2	
Others (sickness, family and study pensions)	20	20.8	
Do not receive financial aid	40	41.7	
Who they live with (0 – 8 people)			
Alone	13	13.5	Mean 1.79
Lives with 1 person	33	34.4	Median 2.0
Lives with 2 or more people	50	55.1	SD = 1.3
Who they can count on			
No one	4	4.2	Mean 2.64
1 or 2 people	49	51.0	Median 2.00
3 or more people	43	44.8	SD = 2.05
First hospitalization			
Yes	35	36.5	
No	61	63.5	

Continue...

Table 1. Continuation.

Variable	n	%	
Frequent readmission (two or more in 1 year)			
Yes	35	36.5	
No	61	63.5	
Reason for hospitalization			
Risk of or attempted suicide (or self-harm)	46	47.9	
Risk of heteroaggression or social exposure	15	15.6	
Severe disability to self-care	28	29.2	
Others	7	7.3	
Diagnostic hypothesis (according to medical chart)			
Schizophrenia, schizoaffective disorder and psychotic disorder	24	25.0	
Depressive episode or recurrent depressive disorder	35	36.5	
Bipolar affective disorder	21	21.9	
Other disorders (ED, OCD, MR, others)	16	16.7	
Duration of hospitalization (days)			
5 – 30	43	44.8	Mean 36.03
31 – 60	34	35.4	Median 33.00
61 – 130	12	12.5	SD = 22.57
Were not discharged until final collection (missing)	7	7.3	
Number of hospitalizations within the last 12 months (1-17 hospitalizations)			
1	61	63.5	Mean 1.60
2	28	29.2	Median 1.00
3 or more	7	7.3	SD = 1.73
Number of total hospitalizations (1-40 hospitalizations)			
1	35	16.5	Mean 5.10
2	15	15.6	Median 2.00
3 or more	46	47.9	SD = 6.49
Service carrying out the follow-up before hospitalization (last 2 months)			
Primary Care	12	19.0	
CAPS, outpatient or MH team	31	49.2	
Others	20	31.8	
Does not apply	33	–	
Use of psychosocial rehabilitation strategy			
Income generation workshop	2	2.1	
Social cooperation	2	2.1	
Never used	62	95.8	

SD: standard deviation; ED: eating disorders; OCD: obsessive compulsive disorder; MR: mental retardation; CAPS: Psychosocial Care Center; MH: mental health.

Most participants did not have a partner, being 51% single and 26% separated or widowed. In regard to income, 66 users (68.8%) had some kind of remuneration and 55.2% of them belonged to social class C, according to the Economic Classification Criterion[30]. Of those interviewed, 69.8% considered themselves responsible for their families.

As for their housing, 80 participants (83.3%) lived in Porto Alegre and shared their housing with an average of 1.79 (SD = 1.3) people, with only one participant living in a street situation. When questioned about how many people they thought they could count on in case they needed help (social support), they indicated an average of 2.64 (SD = 2.05) people. When questioned more specifically who they could count on in their Family, community, work or health professional, 91 participants (94.8%) considered they could count on their families, 41 (42.75%) pointed out someone from their community, 31 (32.3%) referred to a health professional and only 5 (5.2%) reported having someone at work.

PROFILE OF THE SAMPLE: CLINICAL VARIABLES

Evaluating other factors related to current hospitalizations, detailed in Table 1, a data that should be emphasized was he number of people hospitalized for the first time: 35 users (36.5%). Among participants (63.5%) with two or more hospitalizations throughout life, it is noteworthy that 36.5% (n = 35) met the criteria for frequent readmission (two or more hospitalizations within 12 months). The mean hospitalizations in the last year was 1.6 (SD = 1.73) and the mean hospitalizations throughout life was 5.1 hospitalizations (SD = 6.46).

As for the reason for the hospitalizations, 46 users (47.9%) were hospitalized due to risk o for attempted suicide, 29.2% due to severe self-care disability (including disorganization, disabling depressive symptoms, psychotic symptoms, nutritional risk) and 15.6% due to risk of heteroaggression or social exposure. In regard of diagnosis hypotheses, 36.5% had a depressive episode or recurrent depressive disorder, 25% had schizophrenia, schizoaffective disorder or other psychotic disorder and 21.9% were diagnosed with bipolar affective disorder. In relation to the presence of comorbidities, 66.7% had some kind of clinical comorbidity, while 36.5% were diagnosed with some kind of psychiatric comorbidity.

The treatment carried out during hospitalization was mainly by use of medication, 70.8% indicated only pharmacological treatment (some participants indicated the recreational activities developed in the units [crafts and games] and follow-up with the psychologist [psychological evaluation] as part of the treatment), while 17.7% underwent electroconvulsive therapy (ECT) and 11.5% performed encounters with their families and to plan their discharge, both combined with pharmacological treatment. Hospitalizations had mean duration of 36 days.

As for the contact made by the hospitalization team with NPC services after discharge, 69 participants (71.9%) had registries of telephone contact and referral to some kind of NPC service in their medical charts.

PROFILE OF THE SAMPLE: CHARACTERISTICS OF THE FOLLOW-UP IN THE NETWORK FOR PSYCHOSSOCIAL CARE

Analyzing the data regarding the use of NPC services, it was observed that 33 participants (34.4%) were not on follow-up before the hospitalization at the time of the study. Among the 63 users on follow-up: 76.2% would do so in public services, the remaining ones in private services or through their health insurances. As for the kind of service, 49.2% performed follow-up in specialized services (Psychosocial Care Center [*Centro de Atenção Psicossocial* – CAPS], outpatient centers or mental health teams), while 19% had connections only to basic care, according to the data in Table 1.

Regarding the other NPC points of attention, 10 participants (10.4%) referred having used some kind of residential service (Therapeutic Residential Care [TRC] or other transitory residential modalities). As for the psychosocial rehabilitation strategies, only two participants reported taking part in the Income Generation Workshop and two were part of social cooperatives.

DEPENDENT VARIABLE: FIRST HOSPITALIZATION

First hospitalization patients corresponded to 36.5% of the sample (n = 35), the others (n = 61) had already been hospitalized at some point in their lives. It was observed that the number of people patients live with was significantly higher in the first hospitalization group (mean = 2.11; median = 2.00; p = 0.026) than in the group with more than one hospitalization (mean = 1.60; median = 1.00), according to Table 2.

Categorical variables, detailed in Table 3, had a significant difference in relation to the follow-up in NPC before the hospitalization analyzed, since only 45.7% of people with first hospitalization had connections to any health service, when compared to others (72.1%, p = 0.003), which shows that over 50% of users with first hospitalization used the hospital as a gateway to mental health care. In addition, patients with higher number of hospitalizations had more psychiatric comorbidities (44.3%, p = 0.048) than the ones of first hospitalization (22.9%).

The remaining variables did not reach statistically significant differences, however, it is possible to emphasize that the first hospitalization group presented higher number of users who had a companion (31.4 *versus* 18%) and considered they could count more on their communities, when compared to the group with more hospitalizations (45.7 *versus* 41%). On the other hand, the group with more hospitalizations indicated they could count on health professionals (34.2%) more than the first hospitalization group (28.6%), according to Table 3 data.

DEPENDENT VARIABLE: FREQUENT READMISSION

The percentage of frequent hospitalizations, considered as two or more hospitalizations within the last 12 months[5-7], was 36.5% (n = 35). It was found that the group with frequent

readmissions considered they could count on less people (mean = 2.03; median = 2.00), when compared to users with readmissions which did not meet this criterion (mean = 3.31; median = 3.00; p = 0.016), according to Table 2.

In regard to the categorical variables, no significant statistical difference was found in comparing the groups. However, it may be emphasized that, in relation to NPC follow-ups prior to the hospitalization investigated, users with frequent readmissions had greater connections with health services than the others (82.9 *versus* 69.2%). As for the sociodemographic data, the group with frequent readmissions consisted mostly of men (54.3 *versus* 34.6%); also, there were fewer people with companions (14.3%) than the group of non-frequent users (23%). As for clinical variables, the group of non-frequent users considered they could count on health professionals (46.2%) more than frequent users (25.7%), according to Table 3 data.

DISCUSSION

This study found an occurrence of 36.5% frequent readmissions. This result is lower than the one in the study developed in Piauí, which found a percentage of 55.7%[5]. Data for the later were collected approximately ten years ago (2004), when the proportion of substitutive

Table 2. Quantitative variables.

Variable	First hospitalization Yes (n = 35)		First hospitalization No (n = 61)		p-value
	Mean ± SD	M (P25:P75)	Mean ± SD	M (P25:P75)	
Age	40.31 ± 16.2	36 (31:56)	46.0 ± 15.9	45(33:58)	0.161
No. Of people they live with	2.1 ± 1.5	2.0 (1.0:2.0)	1.6 ± 1.3	1.0(1.0:2.0)	0.026*
People they can count on	2.74 ± 2.19	2.0 (1.0:4.0)	2.57 ± 1.99	2.0(1.0:3.0)	0.775
Duration of hospitalization	33.6 ± 23.4	26.0 (16.0:43.0)	37.5 + 22.2	35.0(21.0:46.5)	0.216
Variable	Frequent readmission Yes (n = 35)		Frequent readmission No (n = 26)		p-value
	Mean ± SD	M (P25:P75)	Mean ± SD	M (P25:P75)	
Age	45.1 ± 17.1	43.0 (32.0:59.0)	47.1 ± 14.4	46.0(39.0:58.0)	0.526
No. Of people they live with	1.6 ± 1.1	1.0 (1.0:2.0)	1.5 ± 1.5	1.0(0:2.0)	0.349
People they can count on	2.03 ± 1.5	2.0 (1.0:3.0)	3.31 ± 2.33	3.0(1.0:4.0)	0.016*
Duration of hospitalization	35.8 + 16.8	34.0 (22.5:44.5)	39.8 ± 28.0	37.5(16.0:54.0)	0.914

SD: standard deviation; M: median; P25: 25 percentile; P75: 75 percentile.

services was substantially lower in the country, once that only in relation to NPC there was an increase from 605 to 2,209 services in this period[3], which may have influenced in a higher percentage of readmissions.

In regard to international studies, the rate found in the present study is similar to the one of a study carried out in Australia, which showed a frequency of 46%[7]. On the other hand, much higher than the ones of studies developed in Spain and Portugal, which accounted for 10% of frequent readmissions[6,11]. These differenced may be associated to disparities in the criteria of frequent readmission, as well as the way health services in these countries are organized to meet mental health demands.

In addition to studies which include specific criteria for frequent readmissions, there are other Brazilian works which describe the frequencies of readmissions. Castro et al.[19] found a rate of 34% recidivism in two years in Ribeirão Preto, while Loch[24] found, in São Paulo,

Table 3. Qualitative variables.

Variable	First hospitalization					Frequent readmission				
	Yes (35)		No (61)		p-value	Yes (35)		No (26)		p-value
	n	%	n	%		n	%	n	%	
Sex										
Female	18	51.4	33	54.1	0.834	16	45.7	17	65.4	0.194
Male	17	48.6	28	45.9		19	54.3	9	34.6	
Marital status										
Does not have a partner	24	68.6	50	82.0	0. 206	30	85.7	20	77.0	0.504
Has a partner	11	31.4	11	18.0		5	14.3	6	23.0	
Counts on the community										
Yes	16	45.7	25	41.0	0.674	15	42.9	10	38.5	0. 796
No	19	54.3	36	59.0		20	57.1	16	61.5	
Counts on a health professional										
Yes	10	28.6	21	34.2	0.653	9	25.7	12	46.2	0.111
No	25	71.4	40	65.6		26	74.3	14	53.8	
Psychiatric comorbidity										
Yes	8	22.9	27	44.3	0.048*	15	42.9	12	46.2	1.000
No	27	77.1	34	55.7		20	57.1	14	53.8	
Had follow-up within the last 2 months										
Yes	16	45.7	47	72.1	0.003*	29	82.9	18	69.2	0.235
No	19	54.3	14	22.9		6	17.1	8	30.8	

*significant p-value.

a rate of 42.6% readmissions in the following year to patient's discharge and Bezerra and Dimenstein[22] showed that, in Rio Grande do Norte, the rate was higher than 60.3% in the years evaluated.

As pointed out in the results, a significantly lower number of people in first hospitalization had connections with health services; of these, over 50% used the hospital as a gateway for mental health care. Thus, we can conclude that, if these users had connections to health services, such as primary care — considered the gateway of the system[30], maybe a psychiatric hospitalization would not be necessary. Considering the primary care is estimated to be effective in about 70 to 80% of the cases[31], the connection to the service could detect needs for mental health care and be a protection for unnecessary hospitalizations, in addition to allowing the connection to specialized mental health services, important in cases demanding more attention.

Another important result found was the relation between hospitalizations and social support[32], understood as a set of factors perceives or received by the person, allowed by trust contacts (such as friends and family) or by the community. People who had first hospitalization lived with a higher mean of people than users who went through more hospitalizations. Likewise, participants with frequent readmissions pointed out having smaller support networks than the ones who did not go through the same situation. These data are in agreement to other studies which presented low family support or lesser contact with their families as one of the factors associated to readmissions[19,22,23], as well as Dahlan et al.[8] found social support as the only factor associated to lower readmission rates.

The mean age of the sample was 44.33 years, which is in agreement to other studies which presented mean higher than 37 years of age[7,11,16,20,21,24,33,34]. The findings of the present study did not show association between age and frequent readmissions, results corroborated by some studies in the area[24,33,34].

In regard to gender, a slightly higher number of women (53.1%) may be observed in the sample. Although no significant difference was found in the group of frequent readmissions, the percentage of men (54.3%) was higher, while only 34.6% were men in the group of non-frequent users, which corroborates some studies in the literature which indicate gender as a significant variable, in which men had higher numbers and chances of readmissions[18,19,20,34].

The mean education in the sample was of 9.29 years, which indicates that most (46.9%) participants attended high school. In relation to this profile, it may be highlighted it is in the same direction of other studies indicating most participants had secondary levels of study or low education[7,8,18-20]. This was not a variable to present differences when compared to the frequent readmission group, which corroborates the literature[33,34].

In relation to marital status, most participants in this study did not have a companion (77.1%), which is in agreement to other researches showing a predominance of participants without partners in their samples[7-9,21,24]. Although no statistical significance was found, the frequent readmissions group had higher number of people without a partner (85.7%) when compared to the group which did not meet this criterion (77%), corroborating the literature reviewed[12,18-21].

Among the clinical data evaluated, the duration of hospitalizations in this sample ranged between 5 and 130 days, with an average of 36 days. This duration is even higher when compared to other studies evaluating this variable. Another study carried out in São Paulo[25] found a mean of 17.3 days and, in international ones, a mean duration between 10 and 20 days of hospitalization[6,7,11,16,21,34].

Finally, considering the variables of NPC follow-up, we highlight the data of 34.4% of participants in the study who did not follow-up before the investigated hospitalization, as well as over half the users in first hospitalization, which shows this ends up being the gateway for mental health care access. The fact hospitalizations can be used as a gateway for this care may be associated to the culture instituted about hospitalization as a traditional and "resolutive" treatment for mental disorders, with hospital-centered logic focused on medical care[15,35]. Salles and Barros[15], in a study with readmitted patients, showed users and families still had a speech in which hospitalizations figured as the best possible treatment, in addition to reporting lack of knowledge about the remaining services in the network. Another factor may be the little availability of out-of-hospital resources and their distance from the households of users, making access rather difficult.

Most users who had NPC follow-up did so in public services, particularly in specialized ones. On the other hand, psychosocial rehabilitation strategies were seldom used, which may be related to the poor offer of this kind of care strategy, once that the city of Porto Alegre has only one income-generating workshop which serves the entire metropolitan region.

We emphasize the importance of these components in the network, which has the objective of promoting the autonomy and protagonism of users and their families, in the exercise of citizenship, from the development of actions to articulate different resources in the territory, in the work field, in solidary economy, in education, in culture and in health[3]. Those are important resources which, in addition to allowing for the circulation of and appropriation of territories by users, along with health services, may form the social support network and help the development of people's autonomy. Thus, users can, also, take part in their communities, access services and carry out their treatments' follow-ups, which leads to decreased discrimination in the community, as well as to creating tools to aid continuous care and the non-interruption of the treatment, in an attempt to avoid and reduce readmissions and, eventually, aid moments of crisis.

FINAL CONSIDERATIONS

Data from Porto Alegre[36] show that, between 2011 and 2012, there was an increase of 8.2% in adult psychiatric hospitalization, with increased humor disorders and schizophrenias at 2.7 and 17%, respectively. However, it should be noted recidivism is not accounted for. This study managed to identify the occurrence of frequent readmissions in a hospital in the city, data little investigated in Brazilian studies, despite the registries in international literature. This indicates one of the strengths of this study, due to the need for further investigation in the country. On the other hand, the size of the sample was a limiting factor, once that, in comparison, it was only possible to identify differences between the groups which possibly did not present statistical significance due to the restricted number of users in each group.

The lack of follow-up prior to NPC hospitalization suggests those could have been avoided if users were connected with the services of the network, especially Primary Care, which could detect the needs for mental health care and offer appropriate attention, without requiring hospitalization. In this sense, it should be noted the importance of the hospital as an articulator of the network, as a strategy to bridge other services, even if it does not guarantee access to them.

The relation between social support and frequent readmissions is also highlighted. As discussed, people less attached to their families and communities have greater risk of readmission, which results in repeated broken bounds, which may lead to further estrangement and loss of support. In the same sense, we pinpoint the little access to other services, especially to psychosocial rehabilitation strategies. These community services are powerful tools in care, associated to other network resources, especially in the sense of promoting autonomy and optimizing adherence to health care.

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