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Ratio between outpatient and inpatient care: An indicator for mental health*

Giovanni Francioni Kuhn[1]
https://orcid.org/0000-0002-2756-5226
Roger dos Santos Rosa[1]
https://orcid.org/0000-0002-7315-1200

Objective: to create a mathematical ratio indicator between outpatient and inpatient care in mental health in the SUS. **Methodology:** a quantitative approach of secondary data from DATASUS (SIH/SUS and SIA/SUS) of residents in the Metropolitan Region of Porto Alegre – RS in the 2015-2017 period was used. **Results:** there was a ratio of 12.9 outpatient visits (from 0.2 to 1,248.2/10,000 inhabitants/year) per hospitalization (from 4.9 to 77.1/10,000 inhabitants/year) in mental health for all residents in the territory studied and a mean of 17.1 (95% CI: 10.5-23.7) considering by municipality (range from 0.0 to 82.3). The ratio was higher for females (14.4) when compared to males (11.8) in 22%. There is a bimodal distribution with higher ratios between outpatient and inpatient care in the age groups of 0-19 (20.0) and 45-59 (17.3) years old. **Conclusion:** the DATASUS data showed significant disparity in results, but they can contribute to a better organization and management of the Psychosocial Care Network in the SUS. There is a need for greater care and surveillance when correcting the information provided by the municipalities. In this sense, the ratio that was created may come to represent an indicator of information quality.

Descriptors: Mental Health; Unified Health System; Data Accuracy; Health Status Indicators.

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[1] Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil.

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Razão entre atendimentos ambulatoriais e hospitalares: um indicador para a área de saúde mental

Objetivo: construir um indicador de razão matemática entre os atendimentos ambulatoriais e hospitalares em saúde mental no SUS. **Metodologia:** foi utilizada uma abordagem quantitativa dos dados secundários do DATASUS (SIH/SUS e SIA/SUS) de residentes na Região Metropolitana de Porto Alegre – RS no período 2015-2017. **Resultados:** obteve-se uma razão de 12,9 atendimentos ambulatoriais (0,2 a 1248,2/10 mil hab./ano) por hospitalização (4,9 a 77,1/10 mil hab./ano) em saúde mental para todos os residentes no território estudado e média de 17,1 (IC95% 10,5-23,7) considerando por município (amplitude de 0,0 a 82,3). A razão foi maior para o sexo feminino (14,4) em relação ao masculino (11,8) em 22%. Há uma distribuição bimodal com maiores razões entre atendimentos ambulatoriais e hospitalares nas faixas etárias de 0-19 anos (20,0) e 45-59 anos (17,3). **Conclusão:** os dados do DATASUS evidenciaram grande disparidade nos resultados, mas podem contribuir para melhor organização e gestão da Rede de Atenção Psicossocial no SUS. Há necessidade de maior cuidado e vigilância perante a correção das informações fornecidas pelos municípios. Nesse sentido, a razão construída pode vir a representar um indicador de qualidade da informação.

Descritores: Saúde Mental; Sistema Único de Saúde; Qualidade dos Dados; Indicadores de Saúde.

Razón entre atención ambulatoria y hospitalaria: un indicador para el área de salud mental

Objetivo: formular un indicador a partir de la razón matemática entre atención ambulatoria y hospitalaria en salud mental en el SUS. **Metodología:** se utilizó un enfoque cuantitativo para los datos secundarios del DATASUS (SIH/SUS y SIA/SUS) de residentes de la Región Metropolitana de Porto Alegre - RS en el período 2015-2017. **Resultados:** se obtuvo una razón de 12,9 atenciones ambulatorias (0,2 a 1248,2/10 mil habitantes/año) por hospitalización (4,9 a 77,1/10 mil habitantes/año) en salud mental para todos los residentes en el territorio estudiado y una media de 17,1 (IC 95% 10,5-23,7) por municipio (rango de 0,0 a 82,3). El valor de la razón fue 22% mayor para el sexo femenino (14,4) que para el masculino (11,8). Existe una distribución bimodal con valores mayores de razón entre atención ambulatoria y hospitalaria para las franjas etarias de 0-19 años (20,0) y de 45-59 años (17,3). **Conclusión:** los datos del DATASUS muestran una gran disparidad en los resultados, pero pueden contribuir a mejorar la organización y gestión de la Red de Atención Psicosocial en el SUS. Es necesario un mayor cuidado y vigilancia para corregir la información proporcionada por los municipios. Por lo tanto, la razón formulada, puede ser un indicador de la calidad de la información.

Descriptores: Salud Mental; Sistema Único de Salud; Exactitud de los Datos; Indicadores de Salud.

Introduction

The mental health demands have significantly increased all over the world. It is estimated that, globally, more than 300 million people live with depression – there has been a 18% increase from 2005 to 2015 – with 11.5 million in Brazil (5.8% of the population). Suicide is the second factor that most kills young people (aged between 15 and 29 years old), reaching 800 million deaths annually in the world, which represents 1.4% of all deaths[1]. These disorders are among the six main burdens of diseases in the world, the third one in Brazil. In turn, in relation to disability, these disorders have ranked second at the global level since the 1990s, while reaching the first place in Brazil[2]. Among the ten health problems that cause the most disabilities, anxiety and depressive disorders rank third and fourth in the country, respectively. In relation to the risk factors that cause death and disability (combined), tobacco and alcohol rank first and fifth[1].

However, it is not a recent fact that society is moving away from these disorders and has tried to deal with the people who suffer from these conditions for a very long time. However, the form in which it faced them - and still does - varies greatly, such as estrangement and imprisonment, medicalization, re-approximation of those in distress with society and care in freedom. In history, these anomalous people, or even called as crazy, have been treated as a particular problem of the families, remaining trapped inside their homes[3]. Many of them were considered as magicians, prostitutes, alchemists, wanderers, vagabonds, outlaws and incapable for work-related tasks[4-5]. Prison institutions and the proliferation of repressive measures mark the history of mental health in the world and in Brazil. Here, during the 1964 military regime, there was a prolonged period where confinement in hospitals (largely private) prevailed, not only for the so-called insane, but for a collective of workers in the country, consolidating privatization of care and the treatment asylum model[3]. This scenario only began to change from the international context of the fight against asylum violence and other forms of disrespect for human rights, which, added to the movement of resistance to the Brazilian military regime and leveraged by the Sanitarist Movement, boosted the Psychiatric Reform in the country.

It was from this context that the 1988 Federal Constitution created the Unified Health System (*Sistema Único de Saúde*, SUS). Based on some experiences that were already put into practice in the country - such as the first Psychosocial Care Centers (*Centros de Atenção Psicossocial*, CAPS) in the 1980s - state laws emerged in favor of the Psychiatric Reform, later on leading to the enactment of Law No. 10,216/2001, which provides for the protection and rights of people with mental disorders and redirects the mental health care model in the country.

Along the 30 years of existence of the SUS, one of the few health systems in the world that is public, universal and integral, we can highlight the implementation of several health care policies, one of which corresponds to mental health. The creation of the Psychosocial Care Network (*Rede de Atenção Psicossocial*, RAPS) in the SUS in 2011 was intended to reassert the mental health policy in the country, through which substitute devices had already been implemented for asylums and psychiatric hospitals. In this way, the proposal was to follow the Brazilian Psychiatric Reform with a more humanized perspective, focusing on territorial and community care and on freedom[6]. One of the objectives of the RAPS is to integrate services such as Psychosocial Care Centers (CAPS), Residential Therapeutic Services (*Serviços Residenciais Terapêuticos*, SRTs), work and income generation workshops, Basic Health Units (BHUs), Family Health Support Centers (*Núcleos de Apoio à Saúde da Família*, NASF), Mobile Emergency Care Services (*Serviços de Atendimento Móvel de Urgência*, SAMUs), mental health outpatient clinics and general hospitals in a care network around their users[6].

Since creation of the RAPS there has been a significant increase in the network of services, mainly specialized ones, in which the CAPS totaled 2,462 units throughout the country in 2017[7]. The CAPS are the main secondary care services responsible for territory-based care, seeking to avoid and reduce mental health admissions in hospitals[8]. The number of CAPS has increased significantly since 2011, mainly in medium- and small-sized municipalities, with emphasis on taking these services to the inland. The Northeast is the region with the highest concentration of CAPS, while the Midwest has the lowest. The Southeast and Northeast concentrate the largest number of CAPS III, CAPSi, CAPS AD and CAPS AD III. However, it is observed that CAPS IIIs are not yet present in several states, which undermines the continuity process of the Psychiatric Reform, weakening psychosocial care[9].

There is a quite varied user profile in relation to the RAPS as a whole, different for each type of service. In relation to the CAPS in southern Brazil, it was pointed out that most of the users were female (63.9%), with a mean age of 42 years old[10]. However, there are already studies showing that, in Type I CAPS and CAPS ADs, most users are male[11-12], whereas females prevail in the CAPS IIs[13-14]. Unfortunately, race and skin color have had little visibility in studies and little discussion, despite being an important marker of a social nature[15].

Regarding in-hospital care in the mental health area, a recent survey showed that, economically, 70% of the hospitalized users belonged to Class C and that 40% did not receive any type of financial aid. It also showed that more than 50% of the first-time

hospitalization users resorted to hospitals as a gateway to mental health care, which was statistically significant. Frequent readmissions stand out, reaching 36.5%, which is considered a lower number when compared to other Brazilian publications[16]. It should be noted that, despite the objective of not hospitalizing mental health users, resorting to hospitalization in a general hospital is recommended and should be the choice when necessary, as recommended by Law No. 10,216/2001[17]. There are 263 registered hospitals, with 1,163 mental health beds, duly accredited across the country[7].

Both outpatient and inpatient care must maintain constant dialogue to be able to work in a cohesive way, whether for hospitalizations or for care in the CAPS, BHUs and SRTs, among other RAPS components in which hospital post-discharge follow-up will take place. Studying the existing relationship between these care components is important for monitoring a mental health policy that aims at working and dialoguing in networked care for its users. And it is with this in mind that our objective is to build a ratio indicator between outpatient and inpatient care in mental health for the SUS.

Methodology

A cross-sectional and descriptive research study with a quantitative approach was carried out. Data from the Ministry of Health's information systems were analyzed, such as the Hospital Information System (*Sistema de Informações Hospitalares*, SIH-SUS) and the Outpatient Information System (*Sistema de Informação Ambulatorial*, SIA/SUS) and, secondarily, the National Register of Health Institutions (*Cadastro Nacional de Estabelecimentos de Saúde*, CNES), which serve as a record for the production of activities and care provided in health services, in addition to listing the existing health institutions. The territory studied covered the municipalities from the Metropolitan Region of Porto Alegre - RS (*Região Metropolitana de Porto Alegre*, RMPA/RS) from 2015 to 2017. For the hospital production, the approved Hospital Admission Authorizations (*Autorizações de Internação Hospitalar*, AIHs) were selected and the filter related to the ICD-10 codes, Chapter F, was used as the main hospitalization diagnosis. In turn, for the outpatient production, the approved procedures related to psychosocial care/monitoring were selected, according to codes from Group 03.01.08 of the SUS Procedures, Medications and OPM Table Management System (*Sistema de Gerenciamento da Tabela de Procedimentos, Medicamentos e OPM*, SIGTAP). Based on the data collected for the residents in RMPA/RS, an indicator was created, obtained by calculating the ratio between outpatient visits and mental health hospitalizations. The ratio is the type of fraction in which at least part of the studied elements of the numerator is not contained in the denominator[18]. Thus, the numerator is not a subset of the denominator. The annual coefficients *per* 10,000 inhabitants were also calculated for each municipality in the sample, as well as mean values, standard deviations and confidence intervals (95%) for some ratios. To calculate the population coefficient, the simple arithmetic mean of the period was used in the numerator and the projected population for the intermediate year of the period, according to the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE), was employed in the denominator. The municipalities that were part of the study were all 34 corresponding to RMPA/RS, the geographic region with the highest population concentration in the state of Rio Grande do Sul, with more than 4 million inhabitants (37.7% of the state's total population). RMPA/RS is characterized by having the fourth largest urban and economic concentration in Brazil[19]. The research was guided by Resolution No. 510/2016 of the National Health Council, with no need to submit this study to the CEP/CONEP system, as secondary public domain data were used.

Results

From 2015 to 2017, a total of 413,129 outpatient visits were identified in the SUS psychosocial care networks corresponding to residents of the Metropolitan Region of Porto Alegre-RS (RMPA/RS). During the same period and according to the codes analyzed, 31,941 hospitalizations due to mental disorders were found in the SUS, corresponding to residents in the same territory. Table 1 presents the distribution of the outpatient visits and hospitalizations related to mental health by municipality of residence in RMPA/RS, in addition to the ratio between these visits and hospitalizations as a whole.

Table 1 - Outpatient visits and hospitalizations in mental health in the Unified Health System (SUS) by municipality of residence*. Metropolitan Region of Porto Alegre, RS, Brazil, 2015-2017

Municipality of residence	Outpatient visits (A)	Annual coefficient *per* 10,000 inhabitants	Hospitalizations (B)	Annual coefficient *per* 10,000 inhabitants	Ratio (A/B)
Alvorada	4,962	79.8	607	9.8	8.2
Araricá	3	1.9	58	36.1	0.1
Arroio dos Ratos	1	0.2	86	20.1	0.0

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Municipality of residence	Outpatient visits (A)	Annual coefficient *per* 10,000 inhabitants	Hospitalizations (B)	Annual coefficient *per* 10,000 inhabitants	Ratio (A/B)
Cachoeirinha	4,241	111.6	346	9.1	12.3
Campo Bom	6,969	359.9	177	9.1	39.4
Canoas	71,977	700.2	875	8.5	82.3
Capela de Santana	2	0.6	119	34.9	0.0
Charqueadas	9,061	782.5	213	18.4	42.5
Dois Irmãos	180	19.7	186	20.3	1.0
Eldorado do Sul	8	0.7	88	7.7	0.1
Estância Velha	17,554	1,248.2	431	30.6	40.7
Esteio	26,784	1,061.4	1,031	40.9	26.0
Glorinha	3	1.3	28	12.3	0.1
Gravataí	2,605	31.7	570	6.9	4.6
Guaíba	9,632	323.7	298	10.0	32.3
Igrejinha	9,447	909.3	801	77.1	11.8
Ivoti	1,193	178.6	301	45.1	4.0
Montenegro	12,179	638.8	803	42.1	15.2
Nova Hartz	6	1.0	144	23.7	0.0
Nova Santa Rita	2,936	375.2	76	9.7	38.6
Novo Hamburgo	63,873	854.7	2,347	31.4	27.2
Parobé	6,168	367.8	403	24.0	15.3
Portão	27	2.6	370	35.9	0.1
Porto Alegre	97,802	220.1	15,952	35.9	6.1
Rolante	3,304	529.0	110	17.6	30.0
Santo Antônio da Patrulha	12,240	967.7	193	15.3	63.4
São Jerônimo	2,114	298.0	178	25.1	11.9
São Leopoldo	20,958	304.2	625	9.1	33.5
São Sebastião do Caí	1,690	226.9	409	54.9	4.1
Sapiranga	2,750	114.7	675	28.1	4.1
Sapucaia do Sul	13,929	334.2	1,589	38.1	8.8
Taquara	5,172	300.4	369	21.4	14.0
Triunfo	185	22.0	155	18.4	1.2
Viamão	3,174	41.8	1,328	17.5	2.4
Total	413,129	322.0	31,941	24.9	12.9

*Prepared from unprocessed data from the Ministry of Health – DATASUS

The outpatient visit rates varied from 0.2 in Arroio dos Ratos to 1,248.2/10,000 inhabitants/year in Estância Velha, with a mean of 335.6 (95% CI: 217.5-453.7) across the municipalities and a population standard deviation of 351.5 (coefficient of variation of 104.7%). The coefficients corresponding to hospitalizations varied from 6.9 in Gravataí to 77.1/10,000 inhabitants/year in Igrejinha, with a mean of 24.2 (95% CI: 19.7-30.1) across the municipalities and a standard deviation of 15.5 (coefficient of variation of 62.2%). The ratio between all outpatient visits and all hospitalizations related to mental health in RMPA/RS was 12.9. However, due to the different population weights, this same ratio, as the mean value across all 34 municipalities, resulted in 17.1 (95% CI: 10.5-23.7). The population standard deviation was 19.7 (coefficient of variation of 115.2%).

Table 2 presents the ratios in specific subpopulations according to age group and gender.

Table 2 - Ratio between outpatient visits and hospitalizations in mental health in the Unified Health System (SUS) according to age group and gender, by municipality of residence*. Metropolitan Region of Porto Alegre, RS, Brazil, 2015-2017

Municipality of residence	0-19 years old	20-44 years old	45-59 years old	60-74 years old	75+ years old	Male Gender	Female Gender	Total
Alvorada	12.2	6.7	9.4	8.6	3.5	8.6	7.6	8.1
Araricá	0.4	-	-	-	-	0.1	-	0

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Municipality of residence	0-19 years old	20-44 years old	45-59 years old	60-74 years old	75+ years old	Male Gender	Female Gender	Total
Arroio dos Ratos	0.1	-	-	-	-	-	0	0
Cachoeirinha	5.4	8.9	17.6	24.4	21.3	7.9	17.1	12.2
Campo Bom	23.6	23.8	75.2	86.5	-	24.5	63.3	39.3
Canoas	68.4	71	121.4	104.3	18.6	56.9	130.8	82.3
Capela de Santana	-	-	0	-	-	0	-	0
Charqueadas	24.9	27.4	97.8	120.4	-	26.9	77.5	42.5
Dois Irmãos	4.6	0.7	0.6	1.3	2.5	0.7	1.4	0.9
Eldorado do Sul	0.1	0	0.2	-	-	0.1	0.1	0
Estância Velha	10	44	45.7	26.7	4.1	38.1	43.8	40.7
Esteio	3.1	18	52.1	27.6	9.1	25.1	27.3	25.9
Glorinha	0.3	0.1	-	-	-	0.2	-	0.1
Gravataí	12.9	3.7	3.3	4.7	1	5	4.1	4.5
Guaíba	15.4	27	53.7	32	6	21.8	47.7	32.3
Igrejinha	3.8	11.6	16.7	12.5	-	9.4	13.8	11.7
Ivoti	3.4	3.2	5.7	3.2	3.4	2.1	6.4	3.9
Montenegro	7.2	14	23.7	9.6	7.4	13.2	18.5	15.1
Nova Hartz	0.3	-	0	-	-	0.1	0	0
Nova Santa Rita	23.1	30.1	68	97.3	29	28.7	47.6	38.6
Novo Hamburgo	86.5	17.8	29.9	38.8	9.2	25.5	29.2	27.2
Parobé	10.2	12	21.6	33.5	8	10.9	18.6	15.3
Portão	0.1	0.1	0	-	-	0.1	0	0
Porto Alegre	17.1	4.4	7.2	5.5	0.8	7.5	4.4	6.1
Rolante	59.6	26.6	29.5	15	-	22.2	38.8	30
Santo Antônio da Patrulha	6	47.9	97.3	94.7	11	48.6	88.4	63.4
São Jerônimo	9.3	8.3	15.8	19	-	7.7	21.6	11.8
São Leopoldo	23.6	26	57.1	43.8	2.3	21.9	47.5	33.5
São Sebastião do Caí	8	3.2	5.7	1.8	1.2	3.2	5.2	4.1
Sapiranga	2.1	3.3	6.2	9	0.2	2.5	5.7	4
Sapucaia do Sul	2	8.8	11.1	9.4	3.3	7.2	10.7	8.7
Taquara	27.4	12.4	16.9	7.4	1.7	12.7	15.1	14
Triunfo	2.2	0.8	1.5	2	-	0.7	2.1	1.1
Viamão	2.4	1.7	4	3.2	1	2.4	2.3	2.3
TOTAL	20	9.8	17.3	14.4	4.1	11.8	14.4	12.9

*Prepared from unprocessed data from the Ministry of Health – DATASUS

It is observed that the ratio between outpatient and inpatient visits as a whole for RMPA/RS was higher for females (14.4) when compared to males (11.8) in 22%. For men, the ratio varied from 0.0 in Arroio dos Ratos to 56.9 in Canoas, with a mean of 13.4 (95% CI: 8.6-18.3) and a population standard deviation of 14.5 (coefficient of variation of 107.8%). For women, it varied from 0.0 in Araricá, Capela de Santana and Glorinha to 130.8 in Canoas, with a mean of 25.7 (95% CI: 15.5-35.9) and a population standard deviation of 30.3 (coefficient of variation of 117.9%).

In relation to the age group, there is a bimodal distribution with peaks of the ratio between outpatient and inpatient visits in the age groups from 0 to 19 years old, where it reaches 20.0, and from 45 to 59 years old, with a very similar value: 17.3. The ratio in the oldest age group, 75 years old and over, is less than half the one in the age group from 20 to 44 years old.

Discussion

The significant heterogeneity between the ratios draws the attention, as municipalities with values from 0.0 to 82.3 were found in the same metropolitan region. A significant range was also found in a research study that only analyzed outpatient visits to the CAPS in a Minas Gerais region, which varied from 20 to 3,000 monthly visits in the services analyzed[20].

Regarding the reasons located below the mean of the municipalities (17.1), they can be due to under-recording of activities by the services comprising the RAPS. The municipality of Viamão can serve as an

example, considering that its network includes 4 CAPS and 2 SRTs; however, it presented very small values when compared to municipalities with a similar size. It is added that Viamão was included in the Ministry of Health's list of information debtors, resulting in funding cuts for not recording its productivity[21]. In turn, regarding Porto Alegre, capital city of the state of Rio Grande do Sul, which reached a ratio of 6.1, in addition to the already mentioned factor of possible under-recording, this can also reflect the form of access and permanence in the CAPS of the municipality. In the capital city, this access is not by free demand from users in all CAPS, requiring referral from some other health service - something that is not the case with the CAPS in Canoas (which reached a ratio of 82.3). The low value of the ratio in Porto Alegre can also be due to difficulties linking users to the services provided, as well as to the types of activities made available by these services, mainly group activities.

In relation to gender, in general there is greater demand in the metropolitan region studied as a whole for outpatient visits for females when compared to males (ratio of 14.4 to 11.8), which is in line with a study found in the literature[10], where the CAPS from the Brazilian South region are evaluated. Here, however, Porto Alegre does not fit in with what was previously described, as most outpatient visits corresponded to men. The situation can be related to the RAPS structure, as the capital city has more CAPS ADs than CAPS and, as found in the literature, the specific demand for CAPS ADs is greater in the male population[22]. For comparison purposes, in the municipality of Canoas, which has fewer CAPS ADs than CAPS (one CAPS III, two CAPS II, one CAPS AD III and one CAPSi), the female presence is greater.

Regarding the age group corresponding to the visits, the values point to more outpatient consultations in relation to hospitalizations for the age group from 0 to 19 years old (ratio of 20.0), followed by 45 to 59 years old (ratio of 17.3), 60 to 74 years old (ratio of 14.4), 20 to 44 years old (ratio of 9.87) and over 75 years old (ratio of 4.1). It is important to emphasize that no studies were found for a direct comparison with the data found. However, the findings in the literature indicate differences in results, mainly due to the type of CAPS studied. Without differentiating the CAPS modalities, a mean age of 42 years old can be found for the CAPS in the Brazilian South region[10], and 46 years old for the CAPS in the state of Rio Grande do Sul[23]. However, when differentiating the types of CAPS, there is predominance in the age group of 40-59 years old in the CAPS Is[11-12] and more visits in the age group of 30-39 years old in the CAPS IIs[14], whereas for the CAPSis, the mean age of the individuals treated was 9 years old[24-25]. However, these studies do not address the mathematical ratio in relation to the hospitalizations.

Regarding the services provided to children and young individuals, the high value (ratio of 86.5) for the municipality of Novo Hamburgo stands out. This higher number can be linked to the quality of the RAPS for this age group in that municipality. In this regard, Porto Alegre presented a higher number in the age group of 0-19 years old than in the others. The data stands out even more due to the low number of CAPSis offered by the RAPS of the municipality, that is, only three. However, it can also indicate that the existing services are meeting a very large demand from users belonging to this age group. This demand can overload services and workers, generating queues for appointments and a repressed demand that may seek other possibilities for more immediate care, such as emergencies, generating a cascade effect throughout the Psychosocial Care Network. In relation to this aspect, a finding in the literature reports lack of structure for mental health services for children and young people in the country, pointing out that there is a very large deficit of services, as well as insufficient distribution in all Brazilian regions[26].

The ratio of 120.4 reached by the municipality of Charqueadas in the age group from 60 to 74 years old stands out, the highest in the RMPA/RS in this interval. The municipality presents high ratios in all age groups (when compared to other municipalities in the Metropolitan Region), although especially in this one. It is possible that such results are linked to good outpatient mental health care, possibly with closer monitoring of the aged population in the municipality. If this proves to be true, it may also be associated with a co-funding policy carried out both by the Rio Grande do Sul State Health Department (*Secretaria Estadual da Saúde do Rio Grande do Sul*, SES/RS) and by the Ministry of Health for municipalities that adhered to the State Policy for Primary Health Care of People Deprived of their Freedom in the Prison System and the National Policy for Comprehensive Health Care for People Deprived of their Freedom in the Prison System (*Política Nacional de Atenção Integral à Saúde das Pessoas Privadas de Liberdade no Sistema Prisional*, PNAISP), since the municipality has three large penitentiaries.

Among the outpatient mental health procedures without any type of record, mention is made of actions involving medium-complexity services, such as Residential Therapeutic Services (SRTs), Welcoming Units for Adults (*Unidades de Acolhimento de Adultos*, UAAs), Welcoming Units for Children and Adolescents (*Unidades de Acolhimento Infanto-Juvenil*, UAIs), and Therapeutic Communities (TCs). In the case of the UAAs and UAIs, non-recording can be due to the fact that these services were not carried out in RMPA/RS, as we did not find such services registered in DATASUS, as well as there is no knowledge of any in operation

during the period analyzed. However, SRTs and TCs have been part of the RAPS since its inception and there is no data recorded for specific activities of these services, as specified in the SIA/SUS procedures "monitoring of patients in mental health (therapeutic residence)" and "monitoring of people with special needs resulting from the use of alcohol, crack and other drugs in a transitory residential service (therapeutic communities)". There is a need to investigate and understand the reason for this absence of data, whether due to non-performance of these procedures in the services or to non-recording by the municipalities.

Among other actions that did not record any data are group psychotherapy sessions, with the possibility that they are being accounted for as Therapeutic Workshops (Type I or Type II) and mistakenly recorded as another procedure, or even as Group Session not recorded as a specific psychotherapy activity.

It is also worth noting the other actions that did not have any record, mainly those related to network articulation, matrix support and users' leading role. When comparing to the literature, the study that analyzed the actions developed in a CAPS from Minas Gerais for 2015[27] shows that the procedures involving network articulation were in fact fostered and performed. However, those for strengthening the role of CAPS users and their family members had only one action developed. Examples of actions that refer to this procedure are user assemblies and encouraging them to participate in social control and mobilization spaces. In this context, it is important to emphasize that the ability to work with protagonism of users and family members should be better invested on, encouraging them to be protagonists of their lives with a society able to accept differences[28].

Monitoring of SRTs by CAPS had only one record, in Porto Alegre, a municipality that has two accredited SRTs. The action in question concerns the support given to the SRT teams by the CAPS, promoting articulation between the networks and aiming at fostering autonomy. The low record can be due to the fact that the description of this procedure does not refer to any specific activity, which might end up leading to recording this type of action in other procedures. Either because of the non-support by the CAPS teams to the SRTs or under-recording, the actions carried out in the SRTs and how they are being recorded or not should be better investigated.

In turn, harm reduction actions were recorded 192 times in the three-year period analyzed: 184 in the municipality of Porto Alegre, 4 in Sapucaia do Sul, 2 in Canoas and 2 in Alvorada. Actions like these are essentially carried out by services that work with users of alcohol and other drugs, as tools capable of reducing the harms and/or the use of psychoactive substances, seeking to contribute to the social reinsertion of these users. In the period analyzed, there were harm reduction teams in some municipalities from the state of Rio Grande do Sul, encouraged and funded by the SES/RS state policy[29-30]. However, it does not seem that the actions developed by these teams have been consolidated in the DATASUS data. It is noted that, in 2019, the harm reduction policy was annulled at a national level[31], leaving abstinence as the only treatment possibility for drug abuse from the Federal Government perspective.

When the importance of proper records is emphasized, it is not only due to the municipality criterion to receive fund transfers from the Ministry of Health, but also for better monitoring and evaluation of its health network. Under-recording also affects the production of research studies and knowledge of the reality. The literature points out that only 7.4% of theses and dissertations use secondary data and that only five (of the 103 articles evaluated) resort to DATASUS data[32].

Understanding the reason for the poor data quality was not one of the initial objectives of this paper; however, the research also points its gaze to the quality of the information available in mental health. Thus, the reasons herein presented allow raising hypotheses of what might be a good indicator of information quality. That is, something that DATASUS portal users can easily understand whether the data contained are of a certain quality or not. It is suggested to analyze such aspects municipality by municipality. It is also recommended to verify how to solve these difficulties, which end up not showing the realities of the care provided to mental health services, mainly in the RAPS.

Brazil has a history of advances in the care of people with mental distress and disorders which, unfortunately, has been called into question in recent years. Some sectors of society have mobilized and placed asylums and psychiatric hospitals back at the center of the care to be provided to mental health users[33-34]. Not to mention therapeutic communities, which have received very strong financial support from the government, through the policy for security and fight against drugs[35-36]. In 2019, changes were implemented in the national anti-drug policy that ended up easing involuntary hospitalizations by removing criteria to institutionalize people against their will - which can lead to countless individuals being hospitalized without actually having an indication for doing so. It is reiterated that both involuntary and compulsory hospitalization already existed and were considered a last resort treatment for very serious cases, taking into account the evaluation of a multiprofessional mental health team. These changes in the anti-drug law (Law No. 11,343/06) also facilitate financial resources, whether from individuals or companies (up to thirty percent of income tax can

be allocated), for therapeutic communities, further contributing to the maintenance of loci with a history of inappropriate treatments for the users[33,36].

All the latest governmental changes proposed can lead to strengthening a mental health care logic that advocates hospitalization, confinement and removal of people from society; in other words, a return to a not-too-distant past that has not yet been overcome, but that was once sought to advance. It is necessary to look at potential mistakes made recently, such as non-extinction of asylums by governments that promised to review their use, inclusion and strengthening of therapeutic communities in the RAPS, and weakening of mental health in Primary Care. Looking at errors, evaluating and trying to think of ways to overcome them are tasks for society but, for this to happen, reliable information should be available to support existing good practices and future policies to be created. They will be policies trying to overcome the asylum logic once and for all and prioritize care that is free, respectful, dialogical and centered on the subjects, but that also looks at workers - a care logic which believes that all lives matter.

Conclusion

Creation of the presented indicator, which is easy to calculate and apply, enables monitoring data related to the increase or decrease in mental health hospitalizations, relating them to outpatient visits. That is, the data are not monitored separately but within a context, which is the mental health network of the municipality and its services. It makes it possible to relate whether the increase in hospitalizations is due to the decrease in services and outpatient visits, for example. It also allows state management of the Health Department, and even federal management, to monitor the municipalities and evaluate the most dissimilar ones in order to provide more precise institutional support.

The indicator also allows monitoring and evaluating data against specific subpopulations. The results by age groups make it possible to see situations that would be more difficult to be perceived in isolation, such as the cases of Charqueadas, Novo Hamburgo and Porto Alegre. When analyzing by gender, it is also possible to monitor the network of services, as in the example brought in relation to Porto Alegre, with disparity of types of services and ways to access them.

Reliable data are required for any indicator to work effectively. It is no different in our case, which simultaneously presents itself as a limitation. Data quality was the main limitation of this research, in addition to the fact that we had not previously validated this ratio indicator with primary data before applying it.

At this moment and due to the low data quality, the indicator points more to their own quality than as a possible RAPS quality monitor, representing an indicator of mental health data quality.

However, we believe that calculation of the ratio between outpatient and inpatient visits in mental health may become an item to compose the mental health indicators within the SUS scope, due to its political importance and easy applicability and interpretation.

We suggest carrying out possible research studies that may contribute to the continuity of these studies, such as a search to understand how access to the CAPS is offered in a given territory and if there is any interference in data quality, as well as an expansion that reaches the entire country.

In a period of disbelief in research studies, generation of fake news and weakening of the public and social policies as a whole, it is necessary to once again reassert that education and its dissemination are the foundations of social transformation: in addition to the fact that the mental health, freedom and illness guidelines must be placed in them not as a taboo or as madness, but as a social production of the system we live in, and which is necessary to overcome.

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Authors' contribution

Study concept and design: Giovanni Francioni Kuhn, Roger dos Santos Rosa. **Obtaining data:** Giovanni Francioni Kuhn, Roger dos Santos Rosa. **Data analysis and interpretation:** Giovanni Francioni Kuhn, Roger dos Santos Rosa. **Statistical analysis:** Giovanni Francioni Kuhn, Roger dos Santos Rosa. **Drafting the manuscript:** Giovanni Francioni Kuhn, Roger dos Santos Rosa. **Critical review of the manuscript as to its relevant intellectual content:** Giovanni Francioni Kuhn, Roger dos Santos Rosa.

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Corresponding Author:
Giovanni Francioni Kuhn
E-mail: giovannikuhn@gmail.com
https://orcid.org/0000-0002-2756-5226