

ACCESS TO TERTIARY MENTAL HEALTH CARE SERVICES DURING THE COVID-19 PANDEMIC IN ROMANIA

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Abstract: The entire environment to provide mental health care was affected by the COVID -19 pandemic, including tertiary health care services. This nationwide population-based observational descriptive study aims to explore the access to tertiary mental health care services in Romania, during the year 2020 compared with the last two years before. The analysis of national patterns of hospital admission due to mental health diseases and for the main causes of morbidity has shown disruption of regular services delivery morbidity during Covid-19 pandemic year, the rate of admission for continuous hospitalization registered in Romania due to mental and behavioural disorders in the year 2020 decreased to approximately 55% of the value of the registered rate for 2019 or 2018. During 2020, a change in hospital admission patterns for other diseases, such as cardiovascular, respiratory, digestive diseases, and neoplasms has been observed in Romania.

INTRODUCTION

The COVID-19 pandemic is affecting every aspect of our lives, starting with the health of those directly affected by the SARS-CoV-2 infection and affecting the access, quality of life, and also the financial protection of all.

Several factors have magnified the pandemic effects on mental health and the population access to mental health services: the social and movement restrictions imposed have affected the social life and wellbeing with mental health negative consequences, the restrictions of ambulatory care for chronic conditions have reduced the access and the fear of infection affects how people seek medical advice with effect on addressability to medical services.(1) The entire environment to provide mental health care was affected by the COVID -19 pandemic.(2)

AIM

This observational descriptive study aims to explore the access to hospital mental health care services in Romania, during the year 2020, a year of confrontation with the COVID-19 pandemic, comparing with the last two years before (2018 and 2019).

The study is an opportunity to highlight, discuss and inform on the indirect effects of the pandemic to shape the health care services provided for other conditions than COVID-19. The analysis of national patterns of hospital admission due to mental health diseases and for the main causes of morbidity that cause hospitalized morbidity has importance for understanding the impact of the pandemic and to future health care services development.

MATERIALS AND METHODS

The nationwide population-based observational study

has used secondary data regarding the number of admissions for hospital care due to mental health disorders, all cases and all ages having an ICD-10 coded diagnosis for at least one mental and behavioural disorder.

To place the analysis in the pandemic context, there have been used data regarding the number of hospital admission at the national level due to diseases of the circulatory system, diseases of the respiratory system, diseases of the digestive system and neoplasms, at all ages. Both data, regarding the mental and behavioural disorders and other disorders (of the circulatory, respiratory, digestive systems, and neoplasms) were collected for day admission and continuum hospitalization. The data for continuous and day hospitalisation was also collected by the county.

Data regarding hospitalization by ICD 10 codes were retrieved from a national database of patients admitted to tertiary care services between January and December 2018, between January and December 2019, and between January and December 2020, provided by the National Institute of Public Health.

Data regarding the Romanian population by age group and county for the year 2018 and 2019 reported by the National Institute of Statistics (available online) have been used to measure the inpatients' admission rates for continuous and day hospitalisation at the national and county level.(3)

RESULTS

Disruption of regular mental health hospital service delivery is seen throughout the health care system during COVID 19 pandemic year

The rate of admission for continuous hospitalization registered in Romania due to mental and behavioural disorders in the year 2020 decreased to approximately 55% of the value of

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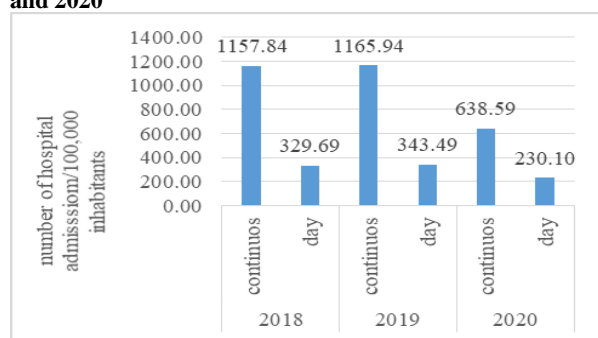
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the registered rate for 2019 or 2018 (54.77%, respectively 55.15%).

The rate of admission for day hospitalization registered in Romania due to mental and behavioural disorders in the year 2020 decreased to approximately 69% of the value of rate registered in 2018 and 66% of the value of the rate registered in 2019. The variation of day and continuous admission rates due to mental and behavioural disorders in the year 2018, 2019, and 2020 are shown in figure no. 1.

These decreases of hospitalized morbidity rates should be interpreted in the general context of the decrease in hospitalization rates due to other pathologies, due to the SARS-CoV-2 pandemic. Thus, in 2020, the population addressability to health services decreased in general, on the one hand through recommendations to reduce as much as possible travel outside the home, by reorientation of medical services to specific services during the COVID-19 pandemic, and by the other hand by population' fear to be infected when accessing health care services. Health services in most countries have faced an unprecedented crisis in recent history - the SARS-CoV-2 epidemic that began in December 2019 and has spread rapidly, becoming a pandemic.

Figure no. 1. Day and Continuous Admission Rates due to Mental and Behavioural Disorder, Romania, year 2018, 2019 and 2020



Disruption of regular hospital service delivery for the main causes of hospitalised morbidity is seen throughout the health care system during COVID 19 pandemic year

In this pandemic context, there were decreases in admission hospitalization rates not only for those due to mental and behavioural disorders but also for the other four major groups of diseases for which high rates of hospitalized morbidity were recorded usually in the last years. Thus, there were also significant decreases in the number and rates of hospitalizations due to the first four classes of diseases that usually generate hospitalized morbidity: diseases of the circulatory system, diseases of the respiratory system, diseases of the digestive system, and neoplasms.

The rate of continuous hospitalization due to cardiovascular diseases in continuous hospitalization had the highest percentage change, decreasing by 46.99% in 2020, compared with the rate registered in 2019, which led to the classification of this rate on the 2nd place in 2020, after the continuous hospitalization rate for respiratory diseases.

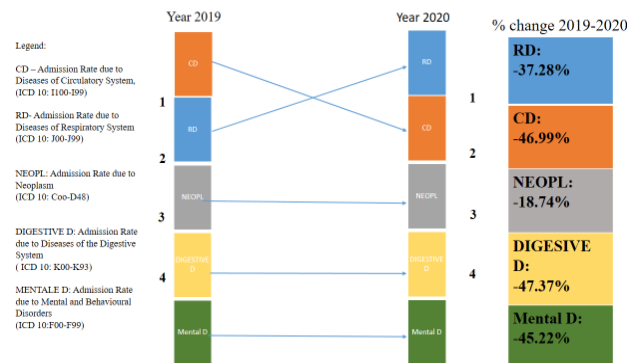
The rate of hospitalization due to digestive diseases in continuous hospitalization decreased by 47.37%, and that for respiratory diseases had the lowest percentage decrease: -37.28%.

The decrease of the hospitalization rate due to mental and behaviour disorders follows the same trend, the percentage change for the hospitalization rate due to continuous hospitalization being 45.22%.

The variation of admission for continuous hospitalisation rates due to mental and behavioural disorders in

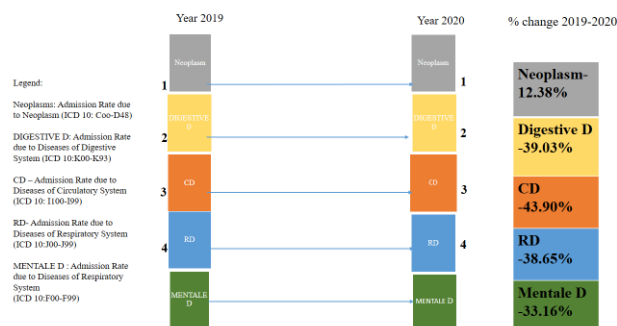
the year 2018, 2019, and 2020 are shown in figure no. 2.

Figure no. 2. Dynamics of admission for continuous hospitalization rates in continuous hospitalization due to the four main causes of morbidity and due to mental and behavioural disorders, 2019-2020



Regarding the admission rates for day hospitalization, the rates also decreased, in this segment the lowest percentage of change was registered for neoplasms -12.38% and the highest variation for cardiovascular diseases (figure no. 3). The small decrease, registered for the daily hospitalization rate for neoplasms, can be explained by the fact that for this pathology the performance of chemo or radiotherapy treatment or the monitoring of the evolution represents a necessity that cannot be postponed in the long run.

Figure no. 3. Dynamics of admission for day hospitalization rates due to the four main causes of morbidity and due to mental and behavioural disorders, 2019-2020



An analysis of hospitalized morbidity rates due to mental and behavioural disorders in 2020 by counties shows a complex situation, with large variations between counties and differences between day hospitalization and continuous hospitalization.

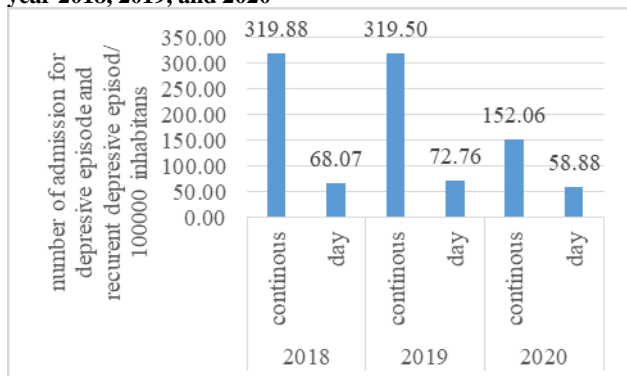
The first three counties with the higher admission for continuous hospitalization rate are Botoşani, Buzău, and Maramureş with admission rates of over 1200 hospitalizations per 100 000 inhabitants, while the counties Suceava, Brasov, and Constanta are those with the lowest admission rates, less than 40 hospitalizations per 100 000 inhabitants. In the year 2019, the higher admission rates were recorded for Botoşani, Vâlcea, and Buzău. Maramureş have a seventh place in the classification recorded in 2019.

The first three counties with admission rates in day hospitalization are Iaşi, Argeş, and Ialomiţa with hospitalization rates of over 900 hospitalizations per 100 000 inhabitants, while Botoşani, Alba, and Mureş counties are those with the lowest admission rates having under 13 hospitalizations per 100 000 inhabitants.

The rate of admission for continuous hospitalisation

due to Depressive Episodes has decreased by 47.59% in the year 2020 compared with 2019. The reduction in admission rates was similar to the reduction seen in the continuous hospitalisation rate due to major morbidity causes discussed above.

Figure no. 4. Day and Continuous Admission Rates due to Depressive Episode (acute and recurrent), Romania, the year 2018, 2019, and 2020



DISCUSSIONS

It is already known that the association between the lack of unpredictability and uncertainty of the COVID-19 pandemic and the necessity to lockdown, physical distancing, and other strategies used by the authorities to slow down the epidemics together with the economic consequences could increase the risk of mental health problems and exacerbate health inequalities.(4)

Given this, even if it would be expected to have higher admission rates due to mental and behavioural disorders, but several major factors have contributed to a decline in the number of requests for medical services including the request for mental health tertiary services: lockdown measures, the special conditions imposed to health care services, conversion of some hospitals into medical facilities dedicated exclusively to treat Covid-19 pathology. Given the hospital strain during the pandemic, mental health care services available for non-emergent procedures was limited, also.

Also, we can assume that many patients have avoided addressing the medical health services, especially tertiary health care, has a contribution to these reductions seen for admission due to mental and behavioural disorders, also.(5) In contrast with the reduction of admission rates in the year 2020, the number of patients diagnosed with mental health disorders being in the family doctors' evidence has raised over pandemic year. In 2019 the number of patients being included in medical evidence at the family doctor at the national level was 527.278 and in 2020 the total number was 527.278.(6) It would be interesting to measure health-related quality of life to evaluate the impact of the COVID 19 pandemic from the patient perspective, even the emotional analysis is a weak point of the usual health-related quality of life tools.(7)

During the lockdown period, a change in hospital admission patterns for other diseases, such as cardiovascular disease, has been observed in Romania but, also, in other countries.(8)

CONCLUSIONS

Admissions for day and continuous hospitalization due to mental health disorders have been reduced by more than 40% in the year 2020 compared with the year 2019 or year 2018.

COVID-19 measures have had a significant impact on tertiary health care services in Romania, including limited

access for chronic conditions over 2020, such as cardiovascular diseases, diseases of the respiratory system, diseases of the digestive system and neoplasms and mental health.

This study suggests that despite reduced rates of hospitalization for mental health during the COVID 19 pandemic, gaps in mental health care still exist and we argue greater investments in primary mental health care are needed to reduce the COVID 19 impact.

COVID-19 long-term effects on mental well-being, respiratory, and cardiovascular health may further increase hospital inpatient admissions, in addition to existing longstanding illness and chronic conditions.

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