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Dear Editor,

Patients with severe mental illness are a particularly vulnerable group in society (Kahl and Correll, 2020), and recent findings also indicate that they are more likely to contract and die from COVID-19 compared to the general population (Wang et al., 2020; Yang et al., 2020). Policy makers and funders now call for studies (Holmes et al., 2020) that can shed light on the effects of the COVID-19 pandemic on vulnerable groups, and to improve knowledge on how to mitigate the negative effects of the pandemic.

Here we describe the results of an outreach initiative that was part of the response to the COVID-19 pandemic at a large psychiatric clinic in Stockholm, Sweden. Patients who had not been in touch with their psychiatric clinic in the past two weeks were contacted via telephone by clinical staff to provide information about available care, arrange an appointment if necessary, assess occurrence of respiratory symptoms, and assess changes in psychiatric symptoms since the beginning of the pandemic in Sweden (March 1st 2020). Data was extracted from the electronic health records of each contacted individual between April 23rd and June 30th 2020. For the outcomes of physical symptoms, psychiatric symptoms, and changes to psychiatric management plans, the frequency of each type of response was summarized and compared to the total number of responses to obtain percentages. For the rating of subjective health, the mean value and standard deviation was calculated. The responses were compared between the units using linear or logistic regression, including age and gender as co-variates.

In total, 1071 patients were contacted via telephone and responses to the specific questions were answered by a majority (79%-82%). The average age of the patients was 45 years (SD = 16.9, range 19-89), and 570 (53%) were women. The majority of the assessments were conducted at the unit for neurodevelopmental disorders (n = 293, 25%), followed by psychotic disorders (n = 249, 21%) and bipolar disorder (n = 245, 21%).

A majority of patients reported no respiratory symptoms (86%). Few reported light symptoms that did not warrant contact with health care (n = 87, 10%) or severe symptoms, defined as symptoms warranting follow-up within the health care system (n = 37, 4%). Light or severe symptoms were less common among men compared to women (OR = 0.5 [95% CI 0.33 to 0.76], SE = 0.22, p = 0.001), and were less common at the unit for bipolar disorder compared to other units (OR = 0.21 [95% CI 0.09 to 0.46], SE = 0.41, p < 0.001).

Similarly, most patients reported no immediate worsening of their psychiatric symptoms (81%), and among those who reported a worsening of symptoms (19%) the psychiatric management plan already in place was deemed adequate in most cases (16.6%). A total of 22 patients (2.5%) needed an earlier or immediate follow-up at their psychiatric clinic than was previously planned. Men were less likely to report a worsening of symptoms (OR = 0.51 [95% CI 0.35 to 0.75], SE = 0.19, p = 0.001), and patients at the unit for bipolar disorders were less likely to experience a worsening of symptoms compared to the other units (OR = 0.22 [95% CI 0.10 to 0.44], SE = 0.37, p < 0.001). In contrast, patients at the emergency psychiatric unit (OR = 2.19 [95% CI 1.29 to 3.74], SE = 0.27, p = 0.004) and the unit for anxiety disorders and depression (OR = 1.85 [95% CI 1.02 to 3.32], SE = 0.3, p = 0.04) were more likely to report a worsening of their psychiatric symptoms.

Patients were asked to rate their mental health on a scale from 0 (worst possible health) to 100 (best possible health.) The average rating was 70.5 [95% CI 69 - 71.9], men reported better mental health compared to women (Estimate = 3.73 [95% CI 0.95 to 6.51], SE = 1.41, p = 0.008) and there was a positive association between year of birth and subjective mental health (Estimate = 0.11 [95% CI 0.012 to 0.21], SE = 0.05, p = 0.029), as younger patients rated their mental health higher on average.

Similar to an early Chinese survey of 2065 psychiatric patients (Zhou et al., 2020), we found that 20% of respondents reported a deterioration in psychiatric symptoms. However, 22% of respondents in the Chinese survey could not access their routine psychiatric care due to suspended hospital visits, whereas in the present study only 2.5% of patients needed an updated psychiatric management plan. Further, psychiatric wards in Sweden remained open and patients with mental illness as well as those infected with COVID-19 were able to receive inpatient care in isolated wards. An early report from the Lombardy region in Italy describes a closing of psychiatric wards and reallocation of staff towards managing patients with COVID-19 (Girolamo et al., 2020), which was not the case in Sweden.

In conclusion, this report on respiratory symptoms, changes in psychiatric symptoms, and subjective mental health among patients with severe mental illness in Sweden during the COVID-19 pandemic highlights the need for specific actions and adaptation of psychosocial care to serve a group that is particularly vulnerable to the disease.
severe mental illness who had not been in contact with their clinic for two weeks during the early pandemic phase in Stockholm, found that respiratory symptoms requiring follow-up in the healthcare system were rare (4%) and that 19% of patients reported a deterioration in their psychiatric symptoms. However, existing psychiatric management plans were adequate in the majority of cases and few patients needed an early follow-up (2.5%). These findings relate to the early pandemic phase in Sweden before widespread availability of tests, safety equipment, or vaccines against COVID-19. Continued monitoring of vulnerable groups, such as patients with severe mental illness, is needed as the pandemic continues and long-term effects can be observed.

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Contributions

Conceptualization: Flygare, Ivanov, Sill, Malaise, Rück, Martinsson.
Data curation: All authors.
Writing - original draft: Flygare
Writing - review & editing: All authors.
Formal analysis: Flygare.

Access to data

The study was approved by the Ethical Review Agency in Sweden (no. 2020-03474). The need for informed consent was waived since the research team only accessed pseudonymized data where it was not possible to identify individual patients.

Requests for additional information should be made to the first or last author. Due to Swedish and European Union data protection and privacy legislation, we generally do not share patient-level data. Scripts used for statistical analyses are available on the Open Science Framework (http://doi.org/10.17605/OSF.IO/NP7MU).

Declaration of Competing Interest

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