Perspectives on the COVID-19 Pandemic and Individuals With Serious Mental Illness

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Just over a month ago, the World Health Organization declared coronavirus disease 2019 (COVID-19)—the disease caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2)—a global pandemic. The scale of disruption that the COVID-19 pandemic has had on society has been massive and unprecedented. As of April 16, 2020, the coronavirus has infected more than 2 million people and claimed the lives of 144,341 worldwide. The statistics in the US alone (668,174 cases, 33,931 deaths)—which now overshadow those in the first epicenters such as China, South Korea, Italy, and Spain—are sobering.

The major public health focus at the start of the pandemic was to “flatten the curve,” or slow the rate of COVID-19 transmission, with a particular emphasis on protecting the elderly, the immunocompromised, and those with respiratory and other medical conditions that placed them at higher risk of more severe outcomes if infected. However, as we enter the second month of the COVID-19 shutdown and contend with the idea of a new “normal,” the impact of the COVID-19 crisis on other vulnerable populations, including individuals with serious mental illness (SMI) such as schizophrenia and bipolar disorder, shifts into greater focus.

Impact of the Coronavirus on People With SMI

Potentially higher risk of coronavirus exposure and infection. Schizophrenia and bipolar disorder are associated with cognitive deficits, including executive dysfunction. In addition, people with SMI comprise a disenfranchised group, with lower educational attainment and health literacy, on average, compared to the general population. Such factors may make it harder for people with SMI to find accurate information about COVID-19 and to organize, appraise, and translate health information into behavior that reduces risk of exposure and infection. This is especially true given the speed and constantly evolving nature of new information and guidance about COVID-19, as well as the troubling amount of “noise” in the form of misleading or false information circulating in social media and even some mainstream news outlets.

Negative health-related behaviors may also increase infection risk in SMI. Some studies suggest that SMI patients may have lower rates of adherence to treatment for medical conditions (though data are mixed; see, eg, Kreyenbuhl et al13). Thus, it is possible that patients, especially those who are more acutely ill, may have a harder time complying with protective hygiene measures, stay-at-home orders, and other health guidance during this pandemic. Tobacco use is another adverse health-related behavior that is much more common in SMI (64% in schizophrenia and 44% in bipolar disorder vs 19% in individuals without psychiatric illness). Contact with virus-contaminated fomites is one of the mechanisms of coronavirus infection, and the act of smoking, which involves the hands and possibly contaminated cigarettes and other smoking apparatus coming in frequent contact with the mouth, may elevate risk. In addition, the coronavirus uses the angiotensin converting enzyme II (ACE-2) receptor to gain entry into cells and cause active infection, and it was recently found that smokers have higher expression of ACE-2 in bronchial epithelial cells compared to nonsmokers and former smokers. The higher ACE-2 levels in the airways of smokers is thought to predispose smokers to coronavirus infection.

Finally, individuals with SMI face greater risk of coronavirus exposure and infection because of structural barriers that can hinder their ability to successfully quarantine at home. SMI is associated with higher rates of homelessness and unstable housing. According to one estimate, 20% of schizophrenia and 17% of bipolar disorder patients are homeless. These numbers suggest that a disproportionately large number of patients with SMI may lack the basic necessity of a safe and secure location in which to practice social distancing. Furthermore, for patients residing in communal settings, such as shelters, psychiatric units, and group homes, there can be heightened risk of contagion, as occurred in South Korea, where 101 of 103 patients in a psychiatric unit contracted COVID-19 and 7 died. Similarly, in New York, people with disabilities living in group homes were found to be 5.3 times more likely than the general population to develop COVID-19 and 4.9 times more likely to die from it. Psychiatric units and other behavioral health settings are often designed to facilitate social interactions, with patients and staff interacting in close quarters. In contrast to medical floors, psychiatric units are less likely to be equipped with personal protective equipment (PPE), and staff may have less prior training and experience in infection control practices. These factors, compounded by the worldwide shortage of

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The coronavirus causes severe illness—with complications such as pneumonia, acute respiratory distress syndrome, septic shock, and acute kidney injury—in approximately 16% of cases, according to data from early in the pandemic. Severe cases are associated with the presence of coexisting conditions, such as diabetes, hypertension, cardiovascular disease, chronic obstructive pulmonary disease (COPD), immunodeficiency, and cancer. Even without factoring COVID-19 into the calculation, SMI patients already have a mortality rate of 3.7 times that of the general population, with the excess deaths largely attributable to cardiovascular and respiratory diseases.

Factors related to both illness (eg, physical inactivity due to negative symptoms) and treatment (ie, metabolic disturbances caused by atypical antipsychotic medications) increase rates of cardiovascular disease and diabetes in patients with SMI. Tobacco use also causes lung disease and reduced lung capacity, increasing the risk of more serious illness. Even before COVID-19, the incidence of pneumonia was higher in schizophrenia, and associated with antipsychotic medications and tobacco use, among other factors. Furthermore, clozapine, which is the antipsychotic reserved for treatment-resistant schizophrenia patients, can suppress immune function and increase susceptibility to infections like pneumonia.

The reasons why underlying medical conditions cause more severe COVID-19 illness are not yet fully understood, but ACE-2, the receptor to which SARS-CoV-2 binds to cause infection, are highly expressed in the heart and lungs. The coronavirus is thought to cause acute injury to alveolar and myocardial cells, which may already be compromised in cardiovascular and respiratory diseases. The use of ACE-inhibitor antihypertensive medications, which up-regulate ACE-2, may also play a role in increasing the severity of infections. Whatever the mechanism, the high rate of smoking and comorbid medical conditions in SMI, in combination with the medications routinely used to treat SMI, may create a perfect storm for COVID-19 complications.

Worse outcomes may also result from delays in getting treatment. SMI patients tend to present for medical attention much later in the course of disease. Difficulty recognizing and effectively reporting physical symptoms—whether due to reduced pain sensitivity, anosognosia (impaired awareness of illness), cognitive and motivational impairments, delusional interpretations about the body, and/or denial—may contribute. In addition, SMI patients tend to have less financial and other resources, live in poorer neighborhoods with less favorable patterns of use and access to care, and receive lower quality medical care. Unfortunately, in the case of such a highly transmissible virus like SARS-CoV-2, delays in diagnosis and treatment not only impact the health of the affected individual but also have ramifications for public health.
phone ownership (including smartphones) is increasingly common in all populations, including people with SMI, and evidence suggests that concerns regarding patients’ ability and comfort using such technology may be unfounded.36 Still, there will be individuals who will have difficulty or discomfort conveying information by telephone or videoconference. And while videoconferencing can improve the relational connection, there is a sense of “with-ness” that is lost in virtual interactions, and this phenomenon may disproportionately affect people who historically struggle to engage with their treaters. Issues of access and equity will come into play, as some people will not have the resources to obtain phone or Internet service, may lack enough minutes or data on their plans, or may not have the tech-literacy to participate in a video call without assistance. Other access issues to consider include the need to have workflows and technology that allow for the proper use of interpreters, including those for deaf and hard of hearing populations.

Like many others, people with SMI may forgo needed care out of fear of contracting the coronavirus in settings such as emergency departments, hospitals, outpatient laboratories, and pharmacies. Providers may need to reconsider the necessity and frequency of routine laboratory work in order to limit potential community exposure to the virus. Risk-benefit discussions will need to be undertaken with patients in order to assess the value of current monitoring protocols in the setting of a pandemic. The US Food and Drug Administration has released guidance highlighting flexibility in clozapine monitoring requirements during the COVID-19 public health emergency.39 To ensure medication adherence is not interrupted, patients may need assistance setting up home deliveries from pharmacies. The administration of long-acting injectable medications may also become challenging due to staffing issues and inadequate PPE, necessitating creative problem-solving and possible return to oral medication for a period of time.

Conclusions and Recommendations

The COVID-19 pandemic presents challenges for us all. However, people with SMI may face even greater challenges due to the multiplicity of factors that put these individuals at risk for coronavirus infection and complications, as well as the massive impact of public health measures and associated changes in mental health care delivery. These factors are likely additive and make an already marginalized segment of society even more vulnerable. There is no doubt that this pandemic is causing devastation worldwide, but the pandemic arguably does more to expose problems that already exist. According to historian and writer Frank M. Snowden, epidemics like the coronavirus are “a mirror for humanity.”40 He writes, “Epidemic diseases are not random events that afflict societies capriciously and without warning. On the contrary, every society produces its own specific vulnerabilities.”40 In the case of people with SMI, what is reflected is the profile of a vulnerable population in a health care system that is highly fragmented.

What can we do about this? First, we need to creatively and actively engage and strengthen partnerships with patients, whether through virtual encounters or in-person with the protection of PPE (eg, for congregate care settings) during this period of social distancing. Patients may need increased support to cope with the stress and uncertainty of the pandemic and to manage any exacerbation of symptoms. Importantly, we need to ensure that patients receive clear and accurate information and education about COVID-19 and how to protect themselves and those around them from disease transmission. Health information needs to be presented and represented in clear and accessible ways, tailored to individual strengths and limitations.

Until vaccines become available, close monitoring of physical health and increased access to testing will be critical, while recognizing that treaters may need to advocate for their patients in order to secure appropriate COVID-19 testing. Those living in congregate care settings will need to be supported by staff who have been trained to monitor for signs and symptoms of COVID-19, including the identification of symptoms requiring emergent attention. People with unstable housing will need suitable accommodations to ensure the safety and health of themselves and others. People who are unable or unwilling to follow public health guidance and restrictions such as quarantine or isolation will pose special challenges to the system of care, necessitating supportive and individualized approaches that will hopefully avoid more restrictive or drastic measures that could be undertaken in order to protect the health of the individual and public.

Given the likely increased risks of negative outcomes from COVID-19, as well as the difficulty some individuals have in recognizing and communicating physical symptoms or health needs, people with SMI who are at risk for or have been diagnosed with COVID-19 may need closer medical monitoring if quarantining or isolating outside of a hospital setting. In all these efforts, close collaboration between psychiatry, primary care, and other medical services is needed to reduce poor clinical outcomes in this vulnerable population.

Second, the health care system, and society more generally, needs to not only deal with issues related to COVID-19 but also address the deeper challenges and disparities that people with SMI face. We need to help patients achieve better health outcomes through smoking cessation, improved diet and exercise, more effective medications with better side effect profiles, better access to quality health care, more stable housing, safer neighborhoods, and improved educational and vocational opportunities to increase social capital. We recognize that these goals are ambitious and unlikely to occur overnight. However, if we can use the current crisis to initiate sweeping change, as many clinics and hospitals have been able to do with the rapid transition to telehealth, we may find ourselves facing a less troubling situation in the “mirror” if and when another pandemic occurs.
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