Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Homeless people with mental illness in India and COVID-19

The National Institute of Mental Health And Neuro-Sciences, Bengaluru, India, has a long-standing experience in caring for homeless people with mental illness both during emergencies and in ensuring continuity of care. Homeless people with mental illness referred to mental health services at the institute are assessed by a service medical officer and a psychiatrist from emergency psychiatry and acute care. The confidentiality, rights, privacy, capacity for admission, and treatment of these homeless patients are ensured throughout their stay by adhering to the values of Mental Health Care Act, 2017.[1] Homeless people with mental illness are most often admitted under Section 89 of the Act, with each admission reviewed by the departmental review committee. Following treatment, the patients are transferred for ongoing care to community-based facilities supported by either state governments or non-governmental organisations.

The Government of India implemented a nationwide lockdown by invoking special provisions of Epidemic Disease Act of 1897 and Disaster Management Act, 2015 on March 25, 2020, to prevent spread of COVID-19. During the lockdown, in Karnataka state, homeless people with mental illness were identified by police personnel. Members of public and the police, sensitive to the plight of these individuals, promptly facilitated their placement in emergency temporary shelters, a truly commendable act and one that demonstrates societal empathy and support. Shelters were created by hiring *chatras* (choultries or ceremony halls), community halls, and unoccupied residential facilities. An unexpected outcome of this effort was increasing number of referrals of homeless people with mental illness to our centre for evaluations and further management. In addition to pre-existing complexities in managing these patients (lack of personal data, information on aspects of mental illness, medical comorbidities, or concurrent nutritional deficiencies), our centre faced the associated challenge to safely evaluate and manage them given their likelihood of being at high risk for COVID-19 consequent to impaired judgement resulting from mental illness.

During the COVID-19 lockdown from March 25, 2020, to April 24, 2020, ten homeless people with mental illness presented to emergency psychiatry and acute care services at our institute, equalling the total number for the preceding 1 year. Emergency psychiatry and acute care management protocols were modified to address patients' COVID-19 risk status. Homeless people with mental illness are often unable to provide details of personal identity, family information, and illness. Additionally, these patients demonstrated altered sensorium, impaired comprehension or concentration, thought and behavioural disorganisation, poor self-care, compromised nutritional status, and concurrent physical illnesses impacting immunity levels thereby enhancing risk of contracting COVID-19. They had severe mental disorders (schizophrenia, bipolar affective disorder), intellectual disability, and substance abuse.

Poor awareness about preventive measures to reduce the likelihood of contracting severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection make homeless people with mental illness additionally vulnerable to acquire and spread it. Furthermore, mental illness impacts awareness of vulnerability to infection, timely identification, and help-seeking when symptoms of COVID-19 develop.[2]

The Indian Council of Medical Research formulated COVID-19 testing protocols for travellers, their contacts, and patients with severe acute respiratory symptoms.[3] Homeless people with mental illness could not reliably provide these details and hence were deemed high risk. To overcome this dilemma, we adopted pragmatic approaches by modifying the testing criteria to suit the needs of these patients. Mandatory testing was recommended in presence of additional circumstances including lack of information on exposure, being brought by police or court orders, catatonia, delirium, disorganisation, or substance induced delirium, or where electroconvulsive therapy (ECT) was indicated.

Quarantine might be indicated for some homeless people with mental illness, because their comprehension about public health measures would be poor (understanding about COVID-19, hand hygiene, wearing masks and physical distancing). Consent is essential for COVID-19 testing and mandatory quarantine before admission, provided by the nominated representative and the departmental review committee authorisation in our case. If these consents are not immediately available, the hospital authorities can carry out procedures under the Epidemic Diseases Act, 1897.

We empirically tested homeless people with mental illness, following consent from the nominated representative, using RT-PCR before admission and quarantined all in designated wards for 2 weeks. All the patients tested negative and were later transferred to regular wards to cover for the incubation period and minimise the possibility of spread (appendix).[4] Health-care workers ensured that the patients used face masks.

ECT is best avoided for COVID-19 positive homeless people with mental illness where possible. However, ECT might be indicated in some cases.[5] Given that ECT procedures generate aerosols, they are a potential source for hospital-borne infection transmission to other patients and health-care workers. Comprehensive physical

For more on **Government of India's special lockdown provisions** see https://www.mha.gov.in/sites/default/files/Guidelines.pdf

See Online for appendix

examinations and SARS checklist before each ECT session by the treating clinician is essential. Despite having tested negative for COVID-19, homeless patients with mental illness with moderate-severe respiratory symptoms, would be regarded unfit for anaesthetic induction till their respiratory symptoms subside. ECT parameters with greater efficacy (bilateral electrode placement; brief-pulse width stimulus and higher charge to avoid missed seizures) are preferred to expedite response to ECT thereby minimising total ECTs administered. Enhancing ECT response with fewer sessions and the use of anticholinergics will mitigate exposure to aerosol-generation.

Once homeless people with mental illness are clinically stable, there is extreme pressure on the hospital administration to return them to the community. For those who provide details, family reintegration should be attempted. The others need placement in designated shelters. Although in Karnataka, shelters like Nirashrithara Parihara Kendra provide psychiatric services through district mental health programme or district hospitals, focus on homeless people with mental illness is minimal during COVID-19. For example, non-governmental organisations stopped admitting new homeless people with mental illness given the imminent risk of exposing other residents, and most shelters are overwhelmed with large numbers, leading to delays in discharge.

Our experience highlights the dire need to recalibrate existing care systems amid the current pandemic, to develop adequate infrastructure, formulate clear protocols, and strengthen existing working mechanisms to manage homeless people with mental illness and to place them in shelters that ensure aftercare. Aftercare psychiatric service delivery through teleconsultation-based formats could overcome these obstacles. Additional ways include: risk profiling of already existing patients, isolating of those vulnerable to SARS CoV-2 infection (ie, the immunocompromised patients, older people, or those with co-morbidities like cardiac disease, asthma, lung disease, cancer), and utmost precautions adopted by staff working in shelters and health-care facilities.

To conclude, the steep rise in homeless people with mental illness warranting both emergency psychiatry and mental health aftercare during the COVID-19 pandemic in India is a cause for great concern but also an opportunity to provide effective strategies to enhance mental health services to this vulnerable population.

We declare no competing interests.

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