


# Case series associated with COVID-19 pandemic in causing psychiatric morbidity

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## ABSTRACT

The COVID-19 has emerged as a public health emergency across the globe. Countries all over the world have been forced to enforce nationwide lockdowns to curb the transmission of this illness, affecting millions of people. The disorder and the lockdowns enforced have resulted in a complex set of psychosocial stressors in the lives of people, affecting their resilience and causing psychological stress and mental health issues. In this case series, we aim to highlight the role of such psychosocial stressors in causing mental health problems, especially in a vulnerable individual. The first case reports the onset of first-episode mania in a healthy individual with a family history of mental illness, after the sudden demise of the patient's mother due to COVID-19. The second case highlights the onset of psychosis in an adolescent girl following academic stress due to the inability to carry on her education through online classes. The third case demonstrates the exacerbation of dissociative episodes in a child following the financial crisis in the family during the lockdown period. In low-income to middle-income countries such as India, there is a complex interplay of the psychosocial stressors due to the COVID-19 pandemic with pre-existing issues such as poverty, socioeconomic disparity and inequity of resources leading to a 'double hit' for people from disadvantaged sections of the society and individuals with pre-existing mental illness or vulnerability for mental illness.

## INTRODUCTION

The COVID-19 pandemic has swept across continents, compelling nations to respond with total lockdown of public places and institutions to reduce the rate of disease transmission. Strict social distancing, travel restrictions, temporary unemployment, home-schooling children, working from home and sudden financial crisis are some of the psychosocial challenges that have led to the increased stress levels and the emergence of anxiety, depressive symptoms, insomnia, denial, anger and fear globally.<sup>1</sup> The COVID-19 pandemic is said to pose a risk for mental health crisis in two specific vulnerable sections of the society: (1) those who might experience the new-onset mental disorder as a consequence of being diagnosed with

COVID-19, or the psychosocial crisis related to it, and (2) those with existing mental health conditions who may experience an exacerbation due to the psychological stress related to COVID-19.<sup>2</sup> Conversely, individuals with a mental disorder are also purported to be at increased risk for COVID-19 infection.<sup>3</sup>

In this case series, we highlight some psychosocial stressors generated in the context of the health and socioeconomic crisis faced by low-income to middle-income countries such as India during this pandemic and their role in causing mental health disorders. The cases were selected from a psychiatry outpatient department (OPD) of a tertiary hospital in northern India.

## CASE 1

The patient is a 48-year-old married man, with secondary level education, of middle socioeconomic status, with well-adjusted premorbid functioning. The patient was diagnosed with COVID-19 for which he was required hospitalisation for the initial part of his illness and was managed conservatively and improved after 12 days of admission and eventually recovered. His mother, in her 60s, was also diagnosed with COVID-19, and during the hospitalisation, her physical condition deteriorated rapidly, requiring mechanical ventilation. While the patient was hospitalised, his mother passed away due to the illness, and her last rites were conducted by his other family members. The patient came to know of his mother's demise only after his discharge and was shocked on hearing the news. He expressed guilt for not being able to give his mother company in the last few days of her life and not participating in her funeral rites. His family members tried to console him, but he was not reassured. He would remain tearful throughout the day and preferred to stay isolated. His sleep, appetite and self-care were normal during this period. After 2 weeks, patient's sleep gradually



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reduced to 1.5–2 hours/day. Despite not sleeping, the patient would appear active throughout the day. He also became more talkative and would constantly talk about his mother. He would also appear authoritative to his family members and order them to follow his instructions. He would be constantly engaged in household chores, even when they had already been done by his wife. His predominant mood was irritable, and he would have anger outbursts. He would try to go out of the house despite the lockdown, saying that he was going to the Prime Minister's office to instruct him on how to control the pandemic. If family members stopped him, he would try to run out of the house and become verbally aggressive. Because of unmanageability, he was brought by his family to the outpatient services of our psychiatry department. History revealed that the patient's father suffered from mental illness suggestive of bipolar disorder, which was never treated, and he had expired at the age of 64 years. However, the patient had not suffered from any mental illness in the past. General physical examination and systemic examination revealed no abnormality. His blood pressure (BP) was 110/70 mm Hg, pulse rate (PR) was 81/min, respiratory rate (RR) was 14/min and body mass index (BMI) was 23.9. On mental status examination (MSE), he was mildly unkempt, authoritative towards the interviewer, eye-to-eye contact (ETEC) was made but not sustained and rapport could not be established. His speech was spontaneous with increased rate, tone and volume. His affect was irritable, and he reported ideas of grandiosity. His attention and concentration were aroused but ill-sustained, and his judgement was impaired. Based on his history and MSE findings, a diagnosis of first-episode mania was entertained as per ICD-10 (International Classification of Disorders). Young Mania Rating Scale (YMRS) was applied, which yielded a score of 27. The patient was started on a daily dose of 15 mg olanzapine and 1 mg clonazepam optimised over 1 week. He showed clinical response over the next 2 weeks on the above-mentioned medications. His sleep increased to 6–7 hours/day; there was a reduction in irritability, anger outburst and increased talkativeness, but the ideas of grandiosity and increased psychomotor activity persisted. The YMRS score was reduced to 16 after 2 weeks of pharmacological management.

### CASE 2

The patient is a 14-year-old girl, a student of class 9, belonging to a Hindu nuclear family of low socioeconomic status. She had an easy temperament, no medical comorbidity and no history or family history of mental illness. The patient was studying in a private school, and she was considered as a meritorious student by her teachers and family members and participated in extracurricular activities. Since March 2020, with the imposition of nationwide lockdown, her school has been closed, and all academic activities were conducted through online learning. Although the patient's father possessed a smartphone

with an internet connection, she did not have access to a computer or laptop. The patient was required to attend online classes regularly as organised by her school authorities. She also received online assignments through email, which had to be completed and mailed back within the stipulated period. The patient would try to attend the online classes on her father's phone, but she was unable to complete her assignments. Both her parents were not educated beyond middle school and could not assist her in her academics. The patient would remain constantly preoccupied with her inability to follow the curriculum. She would express apprehensions regarding her school-work. She would frequently report to her family members that she would lag behind her other peers and would not be able to clear her exams. She started reporting intermittent anxiety symptoms, crying spells and sleep disturbance for the next 2.5 months. Then, 10 days prior to the assessment, the patient's mother noticed that she would not sleep at night and appear fearful. She would not interact with family members and have unprovoked anger outbursts. Occasionally, she was seen muttering to herself. Her appetite and self-care also deteriorated significantly following which she was brought to the OPD. General physical examination revealed mild pallor. Her BP was 90/70 mm Hg, PR was 98/min, RR was 16/min and BMI was 18.4. Blood investigations revealed no abnormality. On MSE, she was unkempt, appearing fearful and muttering to self intermittently. ETEC was not made or sustained and psychomotor activity was increased. Her attitude towards the interview was guarded. Her affect was irritable and speech was irrelevant with increased rate, tone and volume, and she was not cooperative for further interviews and would become verbally aggressive. Based on the history and clinical evaluation, a diagnosis of acute transient psychotic disorder was made as per ICD-10, and the patient was started on a daily dose of risperidone 2 mg and lorazepam 1 mg over which her family members reported mild improvement in fearfulness, muttering to self and anger outburst over next 1 week. There was also improvement in her sleep and self-care.

### CASE 3

The patient is a 9-year-old girl, dropped out of school, belonging to lower socioeconomic status, with no significant medical or psychiatric history in the family, was brought to OPD during the lockdown. The child's functioning before the illness was adequate with good academic performance. The family members gave a history of sudden onset spells of unresponsiveness that were usually preceded by a stressful event and were often associated with concomitant symptoms of headache, light-headedness and palpitations. These spells had been occurring intermittently over the last year, during which period, her family had sought consultation from a neurologist. She was diagnosed with psychogenic non-epileptic seizures; her EEG revealed no abnormality, and she was not on any pharmacological treatment.

During the lockdown, the garment factory in which her father worked was shut down, because of which he lost his job. This led to a financial crisis in the family as her father was the chief earning member, and they faced difficulties in paying their rent and meeting the expenditure for daily essentials. The patient was exposed to discussions among parents over money matters. She would be constantly preoccupied with the financial issues of the family. She became anxious and upset when she came to know that her mother was contemplating working as a domestic help to meet the financial needs of the family. She would repeatedly ask her family members to allow her to share the workload at home. Even though she was a student of primary school, she tried to tutor students younger to her in her neighbourhood, as an attempt to earn money for the family. She would remain anxious most of the time and have a sudden outburst of crying. This would often be followed by an unresponsive spell. Previously, these episodes would occur one to two times in a month, whereas now they started to occur three to four times/day. The family members initially sought help from a local faith healer, but after perceiving no improvement, she was brought to the psychiatry OPD. Her general and systemic physical examination did not reveal any abnormality. Her BP was 100/60 mm Hg, PR was 88/min, RR was 16/min and BMI was 17.9. Blood investigations revealed no abnormality. On MSE, she was well kempt, ETEC was made but not sustained and rapport could be established with great difficulty. Her affect was constricted. She reported preoccupations with the financial problems of the family and ideas of guilt about not being able to contribute to the family. Based on the history and clinical assessment, a diagnosis of conversion disorder with seizures was made as per ICD-10. A differential diagnosis of syndromal depressive or anxiety disorder in addition to her pre-existing conversion symptoms was also entertained; however, on evaluation, she did not fulfil the criteria for a separate comorbid diagnosis. The patient was referred to a clinical psychologist for psychotherapeutic intervention. Psychosocial stressors were explored in detail. On Children's Apperception Test, the major themes obtained were of uncertainty, loss of finances and lack of food, failure and poor problem solving ability. The intervention focused on teaching emotional self-regulation skills and breathing exercises for relaxation. The child was asked to keep a record of the frequency of episodes and skill practice. After the initial three sessions, the next sessions were conducted telephonically to enable the family to save travel fare. By the fifth week of treatment, the patient's episodes of headache and unresponsive spells had reduced to one to two times per week.

## DISCUSSION

From being a global public health emergency, the COVID-19 pandemic has evolved into a socioeconomic

and humanitarian crises across the globe. The fear and anxiety surrounding COVID-19 and the nationwide lockdowns have both led to a psychosocial crisis in the lives of people, leading to increased psychological morbidity.<sup>4</sup> The effect of these psychosocial issues is more pronounced in at-risk and vulnerable populations such as those already suffering from mental illness, children and adolescents.<sup>5</sup> The first case highlighted the role of bereavement and the sudden and unexpected loss of a family member as a precipitating factor for a manic episode in a person with no history of mental illness. The patient's father however suffered from bipolar disorder, which possibly conferred a genetic vulnerability in the patient. The inability to give company to his mother in her last moments was a significant source of stress for this patient. The interaction of pre-existing vulnerability and environmental stress in the form of his mother's death played a significant role in the onset of mental illness in this patient. The COVID-19 pandemic has also disrupted the usual experiences of grief due to the measures of isolation and quarantine.<sup>6</sup> The absence of participation in ritual, such as funeral, has been shown to cause disenfranchised grief and lacking social or cultural recognition impairs support resources that assist the grieving process.<sup>7</sup> This is expected to lead to complicated bereavement process and prolonged grief leading to short-term and long-term mental health consequences, as is evident in this case.

The socioeconomic disparities in low-income to middle-income countries such as India lead to more severe psychosocial adversities for the marginalised and disadvantaged sections of society, such as industrial workers, daily wage and migrant labourers.<sup>8</sup> In both the second and third cases, the mental health issues emerged and exacerbated due to the financial crisis and lack of access to digital resources in the family. In the second case, lack of access to a computer led to academic stress and anxiety that paved the way for more severe symptoms of psychosis. In the third case, a sudden financial crisis in the family due to parent's unemployment in lockdown led to an exacerbation of dissociative episodes in the patient. Children and adolescents form a vulnerable group for mental health issues. While the second case manifested a typical picture of adolescent-onset psychosis, the third case being of classical paediatric age group, manifested as conversion disorder. Stressors, such as home confinement, lack of social contact with peers and teachers and family financial losses during lockdowns, can potentially trigger adverse mental consequences in children.<sup>9</sup> Closure of schools and sudden shift in the mode of education to online classes has also become a major source of academic stress, which can lead to depression, anxiety, sleep problems as well as suicidal tendencies.<sup>10</sup>

Although a case series cannot definitely establish a causal relationship between the psychological stressor and onset/exacerbation of mental illness, these cases

highlight the need for increased focus on psychosocial issues of different strata of the society and policy implementation by government agencies and other stakeholders to handle the psychosocial crisis ignited by this global pandemic. This also reiterates the need for addressing the structural barriers to accessibility of mental health treatments. Scaling up of infrastructure to deliver telepsychiatry services, especially in low-income to middle-income settings, can ensure continuity of care in unprecedented scenarios such as the current lockdowns.<sup>11</sup> Also, many psychological interventions can be as effectively delivered through digital media as face-to-face psychotherapy sessions.<sup>12</sup> Lastly, the psychological needs of the frontline health workers also need to be addressed.<sup>13</sup> This would go a long way in ensuring early assessment and intervention and mitigating the adverse psychological consequences of these stressors and prevent short-term and long-term mental health morbidity in the general population.

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