

# Primary care physician's approach for mental health impact of COVID-19

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## ABSTRACT

As the world struggles to control coronavirus infection with the exhausting capacity of health care systems globally, the role of primary care physician and family physician becomes more important as the first point of contact with the community. Limited availability of mental health services in India requires general practitioners to deal with psychological disorders arising due to infection outbreak and its restrictive control strategies. This article discusses what and how primary physicians can manage the psychological burden of a pandemic, and therefore, reducing the reliance on mental health specialist.

**Keywords:** COVID-19, mental health service, pandemic, primary care physician, psychiatric disorders

## Introduction

Considering the second largest population of the world affected by coronavirus disease (COVID-19) and at risk of mental health problems, the role of family physician and primary care physician (PCP) is immensely important in India. Limited availability of mental health service in the country further highlights their roles in combating mental health impact of this pandemic.

A study conducted in China during the initial stage of COVID 19 found the increased prevalence of anxiety and depression among individual presenting with physical symptoms like cough, myalgia and sore throat.<sup>[1]</sup> More than half (53.8%) of participants reported moderate or severe degree of the psychological impact of the outbreak; 16.5% had moderate to severe depressive

symptoms and 28.8% had moderate to severe anxiety symptoms. A recent online survey in the Indian community through snowball sampling technique has revealed that three-fourth of the participants felt the need for mental health care to deal with the panic of COVID-19 pandemic.<sup>[2]</sup> Even in the post-pandemic period, mental health services at the primary level is required to handle anxiety and depression in survivors.<sup>[3]</sup>

Increased vulnerability of affected community could be the result of the high level of stress and multiple challenges in controlling infection outbreak. During a pandemic, accessing mental health services may be difficult due to multiple reasons like travel restriction imposed by authorities, the limited number of the psychiatrist and their availability. A century ago, PCPs had to deal/with the psychological impact of a pandemic, as mental health specialists were not available and psychiatry as a medical speciality was not established. It is yet to establish a suitable approach for primary care psychiatry in an outbreak like COVID-19.<sup>[4]</sup> Understanding of epidemiology of psychiatry disorder can help to plan better strategies to manage mental health issues during a crisis like COVID-19.<sup>[5]</sup> Considering the role of cultural factors and their proximity to the community,

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PCPs can play a significant role in addressing psychological problems due to COVID-19.<sup>[6]</sup>

## Normal Stress Response

As almost everyone is stressed because of the ongoing crisis, it is important to assess how stress affects psychological health. The stress of a pandemic situation and its potential to affect the mental health of the community can be measured quantitatively through Holmes-Rahe Life Stress Inventory (HRLSI).<sup>[7]</sup> It provides a list of 43 life events and their Life Change Unit (LCU), a score for their 'weight' for stress. Individuals facing a situation like COVID-19 pandemic will tap multiple items in HRLSI like 'detention', 'major personal illness', 'major business readjustments', 'major change in financial state', 'death of a close friend', 'changing to a different line of work' and 'major change in working hours'. This will result in a higher score, well above 150 LCU and approximately 50–80% risk for a major breakdown in mental health status according to the Holmes-Rahe statistical prediction model.

We respond to stress in different ways using the various coping mechanism. People affected by pandemic can develop a variety of psychological disturbances in the form of anxiety, panic attacks, and depressive symptoms. Most of the time these symptoms are intermittent and less severe and does not meet the criteria for a syndromal diagnosis, hence it is important for PCPs to avoid over-diagnosing psychiatric disorder among these individuals. The Yerkes-Dodson law explains how performance increases proportionally to reach a peak before declining under stress.<sup>[8]</sup> A certain level of stress required for optimum functioning is known as 'Eustress'.<sup>[9]</sup> Therefore, it is important to differentiate 'Eustress' from distress (which impairs functioning). Every individual exhibiting the symptoms of stress does not require pharmacological treatment as it could be a part of an adaptation process, not a psychiatric disorder.<sup>[10]</sup> Unless there is significant interference in any aspect of biopsychosocial functioning, stress responses can be managed with reassurance and monitoring by the PCP, such individuals can be managed at primary care level without the need of psychotropic medications or referral to a psychiatrist.

## Psychological Symptoms, not Disorder

A recent review of mental health and COVID-19 has inferred from limited studies conducted in only a few countries affected by COVID-19 that 16–28% people showed the symptoms of depression and anxiety.<sup>[11]</sup> However, it is not known what proportion of the patients have a disorder, not just symptoms and requires professional help. Therefore, it very common for PCP during the current pandemic to see patient with psychological symptoms which do not meet the criterion for a psychiatric disorder in terms of either intensity or frequency or duration or degree of impairment. For example, panic disorder is classified in 'Neurotic, stress-related and somatoform disorders' according to International Statistical Classification of Diseases and Related Health Problems 10<sup>th</sup> Revision (ICD-10).<sup>[12]</sup> Panic attacks may

occur during a stressful period like COVID-19 outbreak however it is not a psychiatric disorder.<sup>[13,14]</sup> The patient can be managed with reassurance and relaxation exercises unless such anxiety attacks are frequent and disabling. In some cases, low dose benzodiazepines can be prescribed 'as on required' basis for a short duration with clear instruction in the prescription for maximum no of tablets to be dispensed from the pharmacy. This approach will decrease the risk of accidental overdose and suicide.

Isolated episodes of hallucination or illusion can occur in stressful conditions, social isolation and sleep disturbance.<sup>[15-17]</sup> During the pandemic, such experience could be faced by individuals quarantined in either hospital or house. Unless persisting in nature and accompanying with other psychotic symptoms, these perceptual abnormalities should not be treated as psychotic disorder. They require assurance and observation. The patient may be educated to improve coping skills and social interaction through various means (like digital communication), without compromising social distancing.<sup>[18]</sup> The short term of use of benzodiazepine can help in anxiety and sleep, thus it will also reduce perceptual abnormalities.<sup>[19]</sup>

## New Psychiatric Disorder

Primary physician should consider the possibility of psychiatric disorder if psychological symptoms are either frequent or persistent and causing significant distress or impairment in functioning. Psychiatric disorders are known for their chronicity, but there are exceptions like acute stress reaction (ASR), adjustment disorder and acute transient psychotic disorder. These disorders are short-lasting and self remitting in nature.<sup>[12]</sup> PCPs need to be aware of the dramatic and diverse variety of symptoms of ASR as it can lead to the false impression of other major psychiatric disorder.<sup>[20]</sup>

Acute stress disorder develops in response to stress either physical or psychological in nature and exceptional in severity.<sup>[21]</sup> Restrictive measures (like lockdown and quarantine) and its consequences (like huge economic loss or sudden death of family member) can cause an ASR. It is characterised by a variety of symptoms like feeling dazed, withdrawal from surrounding, agitation and autonomic changes (like palpitation, sweating, flushing).<sup>[12]</sup> Although very distressing to both patient and family member, an episode of ASR resolves quickly, mostly within 48–72 h.<sup>[22]</sup> Therefore, ASR can be easily managed at the primary care level with supportive care and short term of use of benzodiazepines.<sup>[23]</sup>

The patients suffering from medical disorders are vulnerable to psychiatric disorders.<sup>[24]</sup> Diabetes and thyroid dysfunctions are well-known risk factors for depression.<sup>[25,26]</sup> It may be difficult for a PCP to diagnose depression in such patients given the overlapping symptoms like tiredness, change in appetite and difficulty in concentration.<sup>[27]</sup> Hospital Anxiety and Depression Scale (HADS) and Patient Health Questionnaire (PHQ-9) have been found particularly useful for general practitioners to detect depression.<sup>[28]</sup> Altered eating habits and physical activity during a pandemic

can cause worsening of previously controlled medical disorders. Therefore, it is worth to distinguish worsening of medical illness from depression by relevant investigations like thyroid profile and blood sugar level. Although both Selective serotonin reuptake inhibitors (SSRIs) and tricyclic antidepressants (TCAs) are effective for the treatment of depression with co-morbid medical illness, SSRIs are preferred because of side effects profile.<sup>[29,30]</sup> PCP should be aware that antidepressants may take at least 2–4 weeks to act, therefore they should inform and educate patient accordingly.<sup>[31]</sup> If required, benzodiazepines can be tried for a short duration to cover the initial period to allay their anxiety.<sup>[32]</sup>

It is easier for PCPs to diagnose mania because of overt symptoms like excessive talkativeness, increased psychomotor activity and grandiose ideas or delusions. They can be managed with the use of antipsychotics until consultation with a psychiatrist. Managing the index episode should be the priority rather than deciding appropriate mood stabiliser.<sup>[33]</sup>

A psychotic episode can be managed at the primary care level with antipsychotics unless there is a co-existing psychiatric disorder or risk of harm to self or others.<sup>[34]</sup> The target of PCP managing psychotic episode should be the reduction of the severity of psychotic symptoms rather than complete amelioration till patient seen by a psychiatrist. To address extrapyramidal side effects (EPS) and avoid frequent patient visits, PCP should have a lower threshold of prescribing anticholinergic drugs with antipsychotics.<sup>[35]</sup> Second-generation antipsychotics particularly olanzapine are preferred as they have a lower incidence of EPS.<sup>[36]</sup>

Substance use disorder may pose a great challenge during a pandemic due to increased chance of withdrawal symptoms because of reduced availability of substance in quarantine and lockdown period. Alcohol withdrawal syndrome can be managed by use of benzodiazepines preferably lorazepam because of its relative safety in hepatic impairment.<sup>[37]</sup> It is needless to say that thiamine supplementation should be on priority to prevent Wernicke–Korsakoff syndrome. Patients with opioid withdrawal symptoms can be treated with either buprenorphine or methadone if available.<sup>[38,39]</sup> When accessibility to de-addiction service is difficult, symptomatic treatment of opioid withdrawal symptoms should be the primary target.<sup>[39,40]</sup>

### Pre-existing Psychiatry Disorder

Since COVID-19 pandemic started affecting India, its effect on persons suffering from psychiatric disorders has become an important mental health issue considering the burden of mental health disorders in the Indian community and huge treatment and service gap.<sup>[41]</sup> Psychiatric disorders especially anxiety disorders are more likely to worsen with stress than medical or physical illness.<sup>[42]</sup> Poor compliance is another major contributor to the destabilisation of psychological conditions. While episodic conditions like bipolar affective disorders relapse with new mood episode, chronic conditions like schizophrenia and obsessive-compulsive disorder (OCD) deteriorate in severity with further impairment

in functioning.<sup>[43-45]</sup> It is worth noting that OCD particularly repeated checking and hoarding is likely to increase because of the limited availability of grocery items during the lockdown.<sup>[41]</sup> This group of patients will pose great challenges to PCP as it requires rationalisation of the regimen of psychotropics prescribed by a psychiatrist. PCP should always enquire about compliance in patients already on treatment as a first step.<sup>[46]</sup> Depending upon the degree of worsening, PCP can choose either to increase the dose of existing psychotropic or augment it with another drug. Generally, same psychotropic medication can be prescribed with reassurance if there is no major change in the severity of illness. PCP should suppress temptation on trying another psychotropic drug. Previous treatment response is an important predictor of response and should be used whenever possible.<sup>[47]</sup>

In the case of OCD, fluctuation in the severity of obsession and compulsion is a part of its natural course and can be managed by continuing the same dose of the anti-obsessional drug and educating patient.<sup>[48]</sup> If there is a major deterioration, the dose can be increased up to the maximum recommended dose.<sup>[49]</sup> In some patients reporting significant distress due to OCD, short term cover by benzodiazepine will be an appropriate strategy at primary care level till psychiatric consultation.<sup>[50]</sup>

Access to the psychiatrist and refilling of medication may be difficult during a pandemic, hence can result in a relapse of psychotic illness. In such a scenario, PCP should start the patient on the same dose of antipsychotic if the patient has missed a few doses. The longer period of non-adherence should be managed with slow up-titration to therapeutic dose as per tolerability. Worsening of psychotic symptoms or breakthrough episodes in a patient on regular treatment can be managed by further increasing the dose of antipsychotic up to the maximum recommended dose.<sup>[51,52]</sup> If tolerability or non-adherence is due to extrapyramidal side effects, another antipsychotic with a lower potential of EPS can be tried.<sup>[53]</sup> If there is a significant risk of self-harm or harm to others or high chance of non-compliance, PCP should liaison with mental health centre preferably with inpatient facility.

It is common to use depot antipsychotics in noncompliant patients with frequent relapses requiring hospitalisation.<sup>[54]</sup> PCP can continue the same depot injection in a patient tolerant to long-acting antipsychotic. However, they should avoid starting depot antipsychotic at primary care level, as it involves the risk of serious side effects like Neuroleptic malignant syndrome.<sup>[55]</sup>

### Psychopharmacology at Primary Care Level

As a result of various mental health initiatives taken in the country, PCPs are gradually being more skilled to use psychotropic medication.<sup>[56-58]</sup> Recently psychiatry has been adopted as a major subject for undergraduate medical students in All India Institute of Medical Sciences (AIIMS) Rishikesh. PCPs working in remote areas are receiving training in primary care psychiatry.<sup>[59]</sup> PCP should be cautious of possible drug interactions of psychotropics

with other medication commonly used at primary care level like analgesics, antibiotics and antihistamines.

Antidepressant of choice should be SSRI, preferably those having simpler dosing regimen like escitalopram and fluoxetine. TCA should be avoided in patient with benign prostatic hyperplasia, ischaemic heart disease, glaucoma and constipation. It is worth informing the patient about worsening of anxiety and irritability may occur in the first week of treatment.<sup>[60]</sup> Antipsychotic medications can be used as an antimanic agent but the use of mood stabilisers should be deferred as it requires frequent blood investigations and monitoring.

Benzodiazepines can be used for management of irritability and agitation. They should be started at a low dose and given for a short period. Among anti-obsessional drugs, fluoxetine is easy to use and has less potential for withdrawal symptoms in case the patient is facing difficulty in accessing pharmacy during a pandemic.

### Special Group

PCP may encounter problems using psychotropics in a certain group of people (children, elderly, pregnant woman and lactating mother). A very few psychotropics are approved to use in the paediatric age group. The general practitioner should avoid prescribing psychotropics for children and should seek advice from a psychiatrist through telemedicine to decide on urgent intervention required<sup>[61]</sup> Elderly people are sensitive to the side effects of psychotropics and take a longer time to respond.<sup>[62]</sup> Hence their use should be guided by the principle of 'start low, go slow'.<sup>[63]</sup> PCP should avoid starting psychotropics particularly mood stabiliser in a pregnant woman as they involve the risk of teratogenicity and developmental abnormality in their children.<sup>[64-66]</sup> There are few drugs approved for the treatment of postpartum psychiatric disorders because of the risk of exposure to baby via breast milk. PCP should refer these cases to the secondary or tertiary centre as they require careful consideration of risk and benefits of psychotropic medication for both baby and mother by the multidisciplinary team. In emergency cases, Olanzapine can be tried to treat severe cases of postpartum depression and psychosis.<sup>[66]</sup>

### Role of Telemedicine for Primary Care Physician

Current pandemic of COVID-19 crisis and lockdown have realised both patients and health care workers the urgent need to use tele mode of health service and use of digital platforms like CallDoc app<sup>[67,68]</sup> The largest telemedicine market of the world, the united states, had to temporary waive off regulations controlling the use of telehealth on 17 March 2020, due to COVID-19 pandemic.<sup>[69]</sup> Efficacy of telehealth is well established with strong and clear evidence in its favour.<sup>[70]</sup>

Earlier, availability and functioning of telecommunications infrastructure was a hurdle for telepsychiatry. With the increased use

of smartphone and social media platforms, telepsychiatry has a large scope in primary care psychiatry. It has already been used by tertiary care psychiatry centre to train PCPs in India.<sup>[71]</sup> PCPs of Uttarakhand are also receiving guidance and support from a telepsychiatry team of AIIMS Rishikesh.<sup>[59]</sup> Given various electronic platforms providing live audiovisual, it is easy to use this telepsychiatry while maintaining social distance during infection outbreak like COVID 19. It can be used to screen patient with psychological problems to triage patients who may require a personal visit to PCP or referral to a psychiatrist. PCPs can also use it for monitoring side effect and therefore minimising visits of the patient already facing lockdown situation. Availability for PCP through tele-service can assure patients with psychological disorders. PCP should not hesitate to use this facility to seek guidance and support from a mental health specialist through the use of digital mode and telemedicine. In China, online mental health service has been already widely used and accepted by both health care providers and community when used to deal with the mental health impact of COVID-19.<sup>[72]</sup>

### Conclusions

Because of various measures taken to control a pandemic like quarantine and lockdown, a large number of people are at risk of psychological disorder. Considering the limited mental health services available in the country and their restricted access to the community during COVID-19 pandemic, family and primary physicians are required to deal with psychological problems along with medical illness. It is not just desirable but must for PCPs to be both aware and skilled to address common mental health issues arising in infection outbreak situation like COVID-19. Most mental health issues arising in this crisis can be handled by PCPs in the community both independently and in some cases, through assistance with mental health specialists. Recent evidence suggests that telemedicine can play an important role and has been proven both effective and acceptable for both primary health care professional and community affected by the current pandemic. It is essential to accommodate the knowledge of basic psychopharmacology and use of essential psychotropics at undergraduate level so that family physician and PCPs can confidently use psychotropic at primary care level. Therefore, Primary physician can reduce both mental health burden of the community and reliance on psychiatrist and therefore abridging the existing treatment gap. Both quantitative and qualitative studies exploring epidemiology of psychological disorder in a pandemic situation may help in planning an appropriate strategy to handle mental health issues in a case a similar situation arises in future.

### Key Messages

Role of primary care physicians in India is immensely important to fight against the mental health impact of COVID-19. Knowledge of common mental health conditions and psychotropics and liaison with mental health specialist through telemedicine could be a suitable approach for family physicians treating patients suffering from both psychological and medical disorders.

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## Conflicts of interest

There are no conflicts of interest.

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