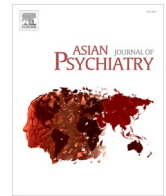




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Letter to the Editor

Psychological experience of patients admitted with SARS-CoV-2 infection



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1. Introduction

SARS-CoV-2 or COVID-19 pandemic outbreak has been creating havoc and has imposed a sense of severe insecurity and panic like situation (Tandon, 2020a, 2020b). The mass media/telecommunications/newspaper/blogs have been updating the information about the rapid rise in cases leading to admission to the hospital, being kept in the isolation ward, requiring oxygen support, being admitted in intensive care units (ICUs), associated mortality and the fate of the dead bodies (packaging/filled up graveyards/crematorium). All this news has led to a significant fear, anxiety, uncertainty, and restlessness in the general public. In this background, when one is diagnosed with COVID-19 infection, the diagnosis brings, in a feeling of shock and disbelief, and a feeling of being on the death bed. Many a time, the diagnosis not only leads to admission into the hospital but also leads to a diagnosis of COVID-19 infection in other family members, family members being sent to quarantine and other contacts being traced to the person (Sahoo et al., 2020a).

Given the high infectivity and reported consequences of infections, including mortality, COVID-19 is known to have significant negative mental health outcomes, not only in those who are diagnosed with the infection and their family members but also in the general public (Wang et al., 2020; Zhao and Huang, 2020) and the front line health care workers (HCWs) (Kang et al., 2020; Lai et al., 2020; Rossi et al., 2020; Tan et al., 2020). Currently, there are viewpoints and perspectives of mental health professionals regarding the different emotional reactions/issues and possible psychiatric problems which may arise in people diagnosed with COVID infection (Grover et al., 2020; Yao et al., 2020). Due to the negative mental health consequences, it is suggested that a mental health professional should be part of the core team managing patients with COVID-19 infection (Grover et al., 2020).

Available literature from the previous epidemics of infectious diseases suggests the occurrence of post-traumatic stress disorder, depression, and anxiety disorders in patients admitted with SARS (2002) and Middle East Respiratory Syndrome (MERS, 2012) during the post-illness/recovery stage (Rogers et al., 2020). Further, emerging evidence also suggests the occurrence of delirium (confusion, agitation, altered consciousness) in patients admitted to ICUs with severe

COVID-19 infection (Chen et al., 2020; Helms et al., 2020) and neuropsychological deficits (dysexecutive syndrome) at discharge (Helms et al., 2020).

However, there is very limited literature on the psychological experience of patients with COVID-19 during their hospital stay. One study (n = 144) reported significant anxiety (34 %) and depression (28 %) at admission to isolation wards (Kong et al., 2020), the other (n = 26) study reported higher anxiety and depressive scores on HAM-A and HAM-D respectively after one week of hospitalization, which decreased after comprehensive psychological interventions (Yang et al., 2020). Another study (n = 57) found prevalence of depression to be around 30 % in newly recovered COVID-19 patients (Zhang et al., 2020). Further, a study with large sample (n = 714) of hospitalised but stable patients with COVID-19 reported post-traumatic stress symptoms in 96.2 % patients (Bo et al., 2020). However, these studies had not explored in detail the emotional reactions which the patients went through during the entire period of hospital stay till discharge.

We reported the narrative experiences of our patients during their hospital stay, who had significant distress when diagnosed with COVID-19 infection (Sahoo et al., 2020a, 2020b). These experiences of few patients prompted us to evaluate the experience of all the patients, admitted to the COVID-19 ward. In this background, the current study aimed to evaluate the emotional reactions/experiences which the patients go through, while admitted to the COVID-19 ward, at the time of discharge.

2. Methods

At our COVID-19 hospital setting, patients (age > 18 years) with confirmed COVID-19 infection [i.e. positive reverse transcriptase, polymerase chain reaction (RT-PCR) assay of nasal/oropharyngeal swabs], are admitted at designated COVID-19 set up. At the time of admission are evaluated in detail for the physical symptoms, including the presence of physical comorbidities and mental disorders. For assessment of mental disorders, all the patients were telephonically interviewed (using video-conferencing through Whatsapp video calling facility or voice calling) by qualified mental health professionals (who were part of the core COVID-19 management team of the hospital) at the baseline

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Table 1
Demographic and clinical details of the study participants.

Variables	Frequency (%) / Mean (SD) (n = 50)
Age	36.94(12.33)
Gender : Male /Female	33 (66.0 %)/17 (34.0 %)
Marital status : Married /Single	37 (74.0 %)/13 (26.0 %)
Duration of hospital stay (in days)	18.26 (4.96)
Co-morbid conditions	
Alcohol dependence	6 (12.0 %)
Tobacco dependence	5 (10.0 %)
Hypertension	8 (16.0 %)
Hypothyroidism	1 (2.0 %)
Diabetes mellitus	7 (14.0 %)
Myocardial infarction	1 (2.0 %)
HIV/AIDS	1 (2.0 %)
More than >1 Physical illness	5 (10.0 %)
Number of patients with atleast one physical illness	13 (26.0 %)
Abnormal Laboratory investigation	
Anaemia	1 (2.0 %)
Abnormal D-Dimer	12 (24.0 %)
Thrombocytopenia	2 (4.0 %)
Required oxygen support (oxygen prongs) : Yes	5 (10.0 %)
Required admission to ICU : Yes	5 (10.0 %)

assessment, for any past history mental disorder or any ongoing mental distress, including substance use disorders. The information provided was also confirmed telephonically from the family members. Subsequently, the patients were followed up on a daily basis/ every alternate day to look after their mental health issues till they were considered for discharge (RT-PCR negative on two consecutive occasions, 24 h apart).

The Institute's Ethics committee approved the study. For this cross-sectional study, patients admitted (adult patients, aged >18 years, with confirmed COVID-19 infection) during the study period (23rd March to 5th May 2020), were approached on the day of discharge or one-day post-discharge telephonically (voice or video call) and informed about the nature and purpose of the study. The participants were informed that they had the right not to participate in the survey. Those who provided verbal consent to participate in the study were sent the study questionnaire through an online survey link (Survey Monkey® platform) on Whatsapp/ SMS, for completion.

The survey questionnaire consisted of patient health questionnaire-4 (PHQ-4) (Kroenke et al., 2009), and a self-designed questionnaire to rate their overall experience during the hospital stay, about the emotions/-feelings they went through during the entire stay and how they coped up during their hospital stay. PHQ-4 is a self-administered, ultra-brief screening instrument to screen for both depression and anxiety; it has 2 items each from PHQ-9 and Generalized Anxiety Questionnaire-7. Additional clinical data were retrieved from case notes of individual patients.

The data were analyzed using SPSS software, version 20.0. Descriptive statistics were applied. Pearson's correlation coefficient, Chi-square test, and independent *t*-test were used to finding the association between different variables.

As no specific questionnaire is available to assess the various dimensions of the experience of people admitted with COVID-19 infection, based on our initial experience with working with patients with COVID-19 and those in quarantine, we designed a questionnaire. The questionnaire covered the assessment of emotional reaction to the diagnosis, emotional experience during the stay in the hospital stay, fear of death at the time of diagnosis, reaction to the medical professionals, reaction to the environment of the ward, emotional experiences during the different stages of treatment, coping with the negative emotions, the value of interaction with others, change in perspective after surviving the COVID-19 infection, and anticipatory stigma. Rating for different aspects was kept flexible. Coping and Anticipatory stigma were rated on a 4 point numerical rating scales with a range of 0–4. The questionnaire

has not been validated.

3. Results

During the study period (23rd March to 5th May 2020), a total of 131 patients were admitted in our COVID designated center, 30 of patients were less than 18 years and 4 patients expired. A total of 97 patients were approached for the study and were sent the survey link, of which 50 patients completed the survey and comprised of the current study sample.

The study sample comprised of 50 patients with a mean age of 36.94 (SD-12.33; range- 21–67; Median: 32.5) years. Majority of the participants were male (n = 33; 66 %) and married (n = 37;74 %). The mean duration of hospital stay was 18.26 (SD- 4.96; range-14 to 38; median: 16) days. About one fourth (n = 13; 26 %) had at least one chronic physical illness. About two-fifth (n = 30; 40 %) had to stay alone in isolation rooms, and a half (50 %) of the participants stayed with another infected family member in the same room. One-tenth (10 %) required oxygen support through oxygen prongs and required ICU stay, of which 3 had brief ICU stay for the initial few days, and 2 had prolonged ICU stay (Table 1).

When asked about their initial emotional reaction to the information about their COVID positive status, a majority reported going through multiple negative emotional states, with the most common emotional states being that of shock (n = 36;72 %), along with feelings of sadness (n = 30;60 %), panic/anxiety (n = 34;68 %) and disbelief (n = 27; 54.0 %). When asked to rate the thoughts of "going to die", on hearing the news about the diagnosis of COVID-19, about one-sixth (n = 8; 16 %) rated it as 100 %, and about two-fifth (n = 20; 40 %) rated it as more than 50 %, with a mean score of 40.5 (SD: 36.3; median: 26). When asked about their reaction to seeing the health care professionals (HCWs) in personal protective equipment (PPEs), about half of them reported it to be like usual interaction with HCWs. In contrast, the other half reported that it felt like they were interacting with Aliens (24 %), astronauts/space scientists (14 %), or robots (22 %). However, the majority of the participants rated the behavior of HCWs to be better than usual times (Table 2).

When the participants were asked to rate their overall experience of staying in the COVID ward environment, taking the entire hospital stay into account, one third reported the experience as if staying in a prison/jail (34 %), as a bad dream (30 %), and a small proportion of them reported it as torture (16 %) and worse than jail (6%). However, others reported the hospital environment to be relaxing (40 %), pleasant (38 %), soothing (28 %), and homely (16 %). Those who stayed in ICU (n = 5), described the experience as painful. Overall, the majority of the patients described the experience as one of the bad phases of life (58 %) and the most horrible time of their life (20 %) (Table 2).

When enquired about the emotions/feelings during the major part of the hospital stay (having options of 'not at all', 'occasionally', 'for few days during the stay', 'for most days during the stay' and 'for almost all days during the stay'), ≥90 % of the patients reported of having anxiety (92 %), remaining worried (96 %) and feeling isolated (90 %) for most days during the stay or for almost all the days during the hospital stay. Other common negative emotional states experienced for most days during the hospital stay were anger (66 %), irritability (76 %), fear of death (64 %), feeling disconnected (86 %), and hopeless (70 %) (Table 3).

When asked about experience of different events and time frames during the hospital stay and close to discharge, things which were mostly evaluated negatively were disclosure of diagnosis and first 3 days of stay in the COVID ward. The things which were valued the most were going out of the COVID-19 ward, travelling back to home and reaching home (Table 4).

When asked about the coping methods used during the hospital stay to adapt to the situation and negative emotions, about two-thirds of the participants reported remembering God (66 %), talking to friends and

Table 2
Details of hospital stay and the initial reaction of patients after admission (n = 50).

Variables	Frequency (%) (n = 50)
During the entire hospital stay, you stayed:	
Alone in an isolation room	20 (40.0 %)
Isolation Room for most of the duration and required ICU stay for a few days	3 (6.0 %)
ICU for most of the duration and stayed for a few days in the isolation room	2 (4.0 %)
In isolation Room with infected family members in the same room	25 (50.0 %)
Initial emotional reactions when told about COVID positive status (multiple responses permitted)	
Shock	36 (72.0 %)
Disbelief	27(54.0 %)
Anger	9 (18.0 %)
Agitation	6 (12.0 %)
Sadness	30 (60.0 %)
Panic, anxiety	34 (68.0 %)
Rate to what extent did you think that you are going to die when you came to know you are COVID positive (on a scale of 0–100)	40.5 (36.3)
Number of patients rated it as 100 %	8 (16.0 %)
Number of patients rated \geq 50	20 (40.0 %)
Reaction/feeling when saw doctors and nurses in Personal Protective Equipment (multiple responses permitted)	
Like usual interaction with Doctors, Nurses, and other Hospital Staff	25 (50.0 %)
Felt that I was with Aliens	12 (24.0 %)
Felt that I was with Astronauts, a space scientist	7 (14.0 %)
Felt that I was surrounded by Robots	11 (22.0 %)
Rate the behavior of the members of treating team towards you when you were in the hospital	
Same as before, i.e., like the doctors and nurses behaving with you earlier	11 (22.0 %)
Worse than before,, i.e., felt that they cared less	2 (4.0 %)
Better than before, i.e., the doctors and nurses showed extra care	37 (74.0 %)
Variables	Frequency (%)
The overall experience of the environment of COVID-19 isolation ward (multiple responses permitted)	
Soothing	14 (28.0 %)
Pleasant	19 (38.0 %)
Relaxing	20 (40.0 %)
Homely	8 (16.0 %)
Painful	11 (2.0 %)
Torture	8 (16.0 %)
Like staying in a Jail	17 (34.0 %)
Worse than a Jail	3 (6.0 %)
Bad Dream	15 (30.0 %)
At least one unpleasant, no pleasant experience	26 (52.0 %)
At least one pleasant no unpleasant experience	20 (40.0 %)
Overall experience of environment of COVID-19 ICUs (n = 5) (multiple responses permitted)	
Soothing/Pleasant /Relaxing	1 (20.0 %)
Painful	5 (100.0 %)
Torture	2 (40.0 %)
Like staying in a Jail	1 (20.0 %)
When you look at your experience of the COVID ward stay, how do you fell about it?	
It was one of the best phases of your life	1 (2.0 %)
Nor good, nor bad about the time spent there	10 (20.0 %)
It was one of the bad phases of your life	29 (58.0 %)
It was the most horrible time of my life	10 (20.0 %)

family members over the phone (64 %) and praying to God (62 %) helped them to a large extent. Listening to music (34 %) or to religious discourses (34 %) and watching movies (30 %) were also reported by one-third of the patients to be quite helpful during their stay to overcome negative emotional states. Coping strategies, such as sleeping, eating, shouting, were less frequently used and when used, helped minimally (Table 5).

Further, when asked to rate the experience, in terms of interaction with various people, interaction with various people, including HCWs, family members (in person or telephonically), mental health professionals, were valued by all the participants (Table 6).

When asked about change in perspective in life, after surviving the COVID-19 infection, almost all of the participants reported an increase in 'faith in God', 'faith in human relationships', 'respect for doctors and health professionals' and 'respect for police and security personnel'. About one-fourth reported a decrease in faith in 'power of money' (Table 7).

When enquired about anticipated stigma, overall, the level of anticipated stigma related to self and family was lower, compared to

that anticipated in the form of reaction of neighbors and society (Table 8). The mean PHQ-4 score of the participants at the time of assessment was 4.32 (SD-1.75), with 32% (n=16) screening positive for anxiety disorders and 20% (n=10%) screening positive for depression. Overall, 19 participants (38%) reported screened positive for either anxiety or depression or both (Table 9).

Age, gender, marital status, presence/absence of physical illness, a total duration of hospital stay were not found to have any significant association with anxiety, depression, or on total PHQ-4 score. Stigma score had negative correlation with PHQ-4 depression score and total PHQ-4 score had negative correlation with coping score (Table 10).

4. Discussion

The present study aimed to evaluate the experiences of the patients with COVID-19 infection during their inpatient stay in COVID isolation wards and ICUs. Most of the patients were asymptomatic with respect to the physical symptoms of COVID-19 infection throughout their stay, and only 10 % (n = 5) required admission to ICU and required oxygenation.

Table 3
Emotions/feelings during major part of COVID hospital stay.

Question 1: How would you describe your emotions during the major part of the stay in the COVID ward?				
Variables	Not at All Frequency (%)	For few days during the stay Frequency (%)	For most days during the stay Frequency (%)	For almost all days during the stay Frequency (%)
Sad	1 (2.0 %)	49 (98.0 %)	–	–
Anxiety	3 (6.0 %)	–	46 (92.0 %)	1 (2.0 %)
Anger	17 (34.0 %)	–	33 (66.0 %)	–
Irritability	12 (24.0 %)	–	38 (76.0 %)	–
Guilt	26 (52.0 %)	–	23 (46.0 %)	1 (2.0 %)
Numb	34 (68.0 %)	–	16 (32.0 %)	–
Worried	1 (2.0 %)	–	48 (96.0 %)	1 (2.0 %)
Fear of Unknown	6 (12.0 %)	44 (88.0 %)	–	–
Fear of Death	16 (32.0 %)	–	32 (64.0 %)	2 (4.0 %)
Fear of Condition Worsening	10 (20.0 %)	40 (80.0 %)	–	–
Happy	29 (58.0 %)	21 (42.0 %)	–	–
Soothing	23 (46.0 %)	27 (54.0 %)	–	–
Relaxing	19 (38.0 %)	–	30 (60.0 %)	1 (2.0 %)
Demoralized	30 (60.0 %)	–	20 (40.0 %)	–
Disconnected	7 (14.0 %)	–	43 (86.0 %)	–
Isolated	2 (4.0 %)	–	45 (90.0 %)	3 (6.0 %)
Hopeless	15 (30.0 %)	–	35 (70.0 %)	–
Helpless	20 (40.0 %)	12 (24.0 %)	18 (36.0 %)	–
Worthless	25 (50.0 %)	19 (38.0 %)	6 (12.0 %)	–

Our study suggests that most of the patients go through the initial emotional reactions of shock, disbelief, sadness, and panic/anxiety and a small proportion of the patient equates the diagnosis of COVID-19 infection with death. These emotional reactions can be understood from the prevailing information about the infection and typical grief reaction to any kind of loss, as described in the literature (ZISOOK and SHEAR, 2009). When there were few cases of COVID-19 infection in the country, media was reporting about high mortality rates associated with COVID-19 infection in Italy and the United States. Some of the anxiety could be due to the information being broadcasted in the mass media regarding the scenarios of the dead bodies being piled up for cremation and crisis for ventilator requirements across the country (“Deaths, Fear of Covid-19 Creating Anxiety, but There is Social Support”, 2020, p. 18). These possibly led to the emotional state among people, who were making efforts to escape the infection, and when they developed the same, it led to a state of grief and fear of death.

The predominant emotional state of patients for most days during the stay or for almost all the days during the hospital stay was that of anxiety (92 %), remaining worried (96 %), and feeling isolated (90 %). This high level of anxiety could be due to multiple reasons, such as staying alone, fear of death, feeling of not been cared for (they are hospitalized, but not given any active treatment; no family caregivers available), adjustment to a new environment, fear, and apprehension about health and

deterioration of physical health, inability to connect to family members, restricted physical movements, following the news update with respect to the COVID-19, worries related to the development of infection in family members and friends, fear of the unknown, fear of death, coming to know about the health status of other family members, seeing other patients being shifted to ICU, etc. Further, in India, people are comparative more social and like to interact with each other. Hence, staying isolated in a closed room could lead to significant anxiety. As there is limited data on the experiences of people with COVID-19 infection, it is difficult to compare our findings with that of the existing literature. Studies that have evaluated people in quarantine have reported similar types of emotional reactions and psychological problems (Brooks et al., 2020; Hawryluck et al., 2004). These findings suggest that there is a need to provide psychological interventions to people admitted in COVID-19 wards with minimal symptoms or those who are asymptomatic. Recently, there has been a change in policy, in that the patients with minimal symptoms or those who are asymptomatic with respect to physical symptoms of COVID-19 have been asked to stay back at home and remain isolated (Home isolation is now an option for COVID-19 patients who are pre-symptomatic or have very mild symptoms, 2020; Ministry of Health and Family Welfare, 2020). This can have its advantages and disadvantages. Psychologically, this can help the person in staying back at their home and also possibly feeling that, they

Table 4
Experience of different events and time frames during the hospital stay.

Variables	Very Bad Frequency (%)	Bad Frequency (%)	Neither Bad nor Good Frequency (%)	Good Frequency (%)	Very Good Frequency (%)
Disclosure of COVID-19 positive Status	22 (44.0 %)	28 (56.0 %)	–	–	–
Disclosure that you may have to stay alone in the ward	–	21 (40.0 %)	25 (50.0 %)	4 (8.0 %)	–
First 3 days of the stay in COVID-19 ward	1 (2.0 %)	46 (92.0 %)	2 (4.0 %)	1 (2.0 %)	–
Day 4 to day 10 of the stay in the COVID-19 ward	–	25 (50.0 %)	21 (42.0 %)	4 (8.0 %)	–
Day 11–14 of the stay in the COVID-19 ward	–	21 (42.0 %)	11 (22.0 %)	13 (26.0 %)	5 (10.0 %)
Waiting for the COVID-19 report to be negative for the first time	–	13 (26.0 %)	6 (12.0 %)	22 (44.0 %)	9 (18.0 %)
Waiting for the COVID-19 report to be negative for the second time	–	12 (24.0 %)	6 (12.0 %)	10 (20.0 %)	22 (44.0 %)
Coming out of the COVID-19 ward	–	1 (2.0 %)	–	13 (26.0 %)	36 (72.0 %)
Traveling back home	–	–	2 (4.0 %)	10 (20.0 %)	38 (76.0 %)
Reaching Home	–	1 (2.0 %)	1 (2.0 %)	7 (14.0 %)	41(82.0 %)

Table 5
Coping skills adapted by the patients.

Variables	Did not use Frequency (%) 0	Used and helped minimally Frequency (%) 1	Used and helped to a small extent Frequency (%) 2	Used and helped to a large extent Frequency (%) 3	Mean (SD)
Sleeping	20 (40.0 %)	23 (46.0 %)	–	7 (14.0 %)	0.74 (0.69)
Eating	40 (80.0 %)	9 (18.0 %)	–	1 (2.0 %)	0.22 (0.46)
Talking to friends and family members on phone	3 (6.0 %)	15 (30.0 %)	–	32 (64.0 %)	1.58 (0.60)
Surfing Internet	17 (34.0 %)	10 (20.0 %)	6 (12.0 %)	17 (34.0 %)	1.46 (1.28)
Watching movies	20 (40.0 %)	10 (20.0 %)	5 (10.0 %)	15 (30.0 %)	1.30 (1.28)
Listening to Music	14 (28.0 %)	9 (18.0 %)	10 (20.0 %)	17 (34.0 %)	1.60 (1.22)
Remembering God	1 (2.0 %)	4 (8.0 %)	12 (24.0 %)	33 (66.0 %)	2.54 (0.73)
Praying to God	1 (2.0 %)	7 (14.0 %)	11 (22.0 %)	31 (62.0 %)	2.44 (0.81)
Listening to religious songs	20 (40.0 %)	16 (32.0 %)	2 (4.0 %)	12 (24.0 %)	1.12 (1.18)
Listening to religious discourse	26 (52.0 %)	4 (8.0 %)	6 (12.0 %)	14 (28.0 %)	1.16 (1.33)
Watching religious programs	31 (62.0 %)	12 (24.0 %)	1 (2.0 %)	6 (12.0 %)	0.64 (1.00)
Planning for future	31 (62.0 %)	17 (34.0 %)	2 (4.0 %)	–	0.42 (0.57)
Rejoicing the free time	38 (76.0 %)	9 (18.0 %)	3 (6.0 %)	–	0.30 (0.58)
Shouting at people by calling them telephonically, whom you think, possibly infected you	45 (90.0 %)	5 (10.0 %)	–	–	0.10 (0.30)
Shouting at people mentally to vent out your negative emotions	38 (76.0 %)	8 (16.0 %)	4 (8.0 %)	–	0.32 (0.62)
Shouting at Health Care workers	46 (92.0 %)	4 (8.0 %)	–	–	0.08 (0.27)
Writing something	49 (98.0 %)	1 (2.0 %)	–	–	0.04 (0.28)
Drawing	48 (96.0 %)	1 (2.0 %)	1 (2.0 %)	–	0.06 (0.31)
Cleaning the place around	34 (68.0 %)	13 (26.0 %)	2 (4.0 %)	1 (2.0 %)	0.40 (0.67)
Exercising	33 (66.0 %)	9 (18.0 %)	4 (8.0 %)	4 (8.0 %)	0.58 (0.94)
Meditation	36 (72.0 %)	12 (24.0 %)	–	2 (8.0 %)	0.36 (0.69)
Total coping score	17.46 (7.25)				

Table 6
Experience of interaction with people during the COVID hospital stay.

Variables	Worst thing ever happening around Frequency (%)	Worst thing happening around Frequency (%)	The best thing happening around Frequency (%)	Best thing ever happening around Frequency (%)
Interacting with doctors and nurses in the ward in person	0 (0%)	12 (24.0 %)	33 (66.0 %)	5 (10.0 %)
Interacting with family members, who were admitted with you	8 (16.0 %)	12 (24.0 %)	29 (58.0 %)	1 (2.0 %)
Being able to connect to Mental Health Professionals on the telephone or by video-conferencing	0 (0%)	2 (4.0 %)	34 (68.0 %)	14 (28.0 %)
Able to Talk to friends on telephone or by video-conferencing	2 (4.0 %)	20 (40.0 %)	23 (46.0 %)	5 (10.0 %)
Able to Talk to family members on the telephone or by video-conferencing	6 (12.0 %)	16 (32.0 %)	22 (44.0 %)	6 (12.0 %)

Table 7
Changes in perspective towards life.

Variables	Increased Significantly Frequency (%)	Increased Slightly Frequency (%)	No Change Frequency (%)	Decreased Slightly Frequency (%)	Decreased Significantly Frequency (%)
Faith in God	24(48.0 %)	23 (46.0 %)	3 (6.0 %)	–	–
Faith in Power of Money	–	2 (4.0 %)	34 (68.0 %)	10 (20.0 %)	4 (8.0 %)
Faith in Human Relationships	29 (58.0 %)	15 (30.0 %)	6 (12.0 %)	–	–
Respect for Doctors & Health Professionals	35 (70.0 %)	14 (28.0 %)	1 (2.0 %)	–	–
Respect for Police and Security Personnel	9 (18.0 %)	20 (40.0 %)	13 (26.0 %)	8 (16.0 %)	–

are dealing with the minor flu-like an infection. Home isolation can also possibly help the person to be comfortable in their natural environment, with family members around them. However, in people, those who have anxious traits, home isolation can be very distressing, because if these people have a high level of somatosensory amplification or hypochondriasis, they would demand to be shifted to the hospital and frequent shifting from one place to the other can be taxing to the available resources and also increase the risk of others getting infected. Accordingly,

it can be said that psychological interventions must be provided to all the people with COVID-19 infection, irrespective of the place of isolation. The psychological interventions should follow the paradigm of grief work and include tenets of supportive psychotherapy.

Findings of the present study suggest that, over the period of hospital stay, the patients start to feel relaxed, and gradually their experience with the ward environment change. This could be attributed to the use of various adaptive coping strategies, perceived supportive behavior of the

Table 8
Anticipatory perceived stigma prior to discharge from COVID-19 hospital (n = 50).

Variables	Never Frequency (%) 0	Sometimes Frequency (%) 1	Often Frequency (%) 2	Usually Frequency (%) 3
Related to self				
You were worried that others will come to know that you suffered from COVID-19	14 (28.0 %)	26 (52.0 %)	7 (14.0 %)	3 (6.0 %)
You were planning to hide, about your COVID-19 infection from others	26 (52.0 %)	17 (34.0 %)	6 (12.0 %)	1 (2.0 %)
You are feeling ashamed because you tested positive for COVID-19 infections	29 (58.0 %)	18 (36.0 %)	2 (4.0 %)	1 (2.0 %)
You were feeling embarrassed because you tested positive for COVID-19 infections	20 (40.0 %)	21 (42.0 %)	7 (14.0 %)	2 (4.0 %)
You were feeling that people would make you feel that, you were infected because of your fault	21 (42.0 %)	17 (34.0 %)	7 (14.0 %)	5 (10.0 %)
You anticipated that you will be hurt emotionally be people's reaction towards you, because of your COVID-19 positive status in the past	13 (26.0 %)	22 (44.0 %)	13(26.0 %)	2 (4.0 %)
You anticipated that others would think less of you as a person	19 (38.0 %)	22 (44.0 %)	8 (16.0 %)	1 (2.0 %)
You feel that others think less of you as a person	23 (46.0 %)	18 (36.0 %)	8 (16.0 %)	1 (2.0 %)
Related to family				
People in your family would be uncomfortable with you	37(74.0 %)	9 (18.0 %)	3(6.0 %)	1 (2.0 %)
People in your family would avoid you	40(80.0 %)	7 (14.0 %)	3 (6.0 %)	–
People in your family would be unkind to you	44 (88.0 %)	3 (6.0 %)	3 (6.0 %)	–
People in your family would be afraid of you, because of your COVID-19 positive status in the past	41 (82.0 %)	8 (16.0 %)	–	1 (2.0 %)
People in your family would avoid touching you, because of your COVID-19 positive status in the past	40 (80.0 %)	7 (14.0 %)	2 (4.0 %)	1 (2.0 %)
Related to neighbors/ society				
People in your neighborhood would be uncomfortable with you	8 (16.0 %)	23 (46.0 %)	11 (22.0 %)	8 (16.0 %)
People in your neighborhood would avoid you	11 (22.0 %)	20 (40.0 %)	10 (20.0 %)	9 (18.0 %)
People in your neighborhood would be unkind to you	15 (30.0 %)	18 (36.0 %)	13(26.0 %)	4 (8.0 %)
People in your neighborhood would be afraid of you, because of your COVID-19 positive status in the past	16 (32.0 %)	20 (40.0 %)	11 (22.0 %)	3 (6.0 %)
People in your neighborhood would avoid touching you, because of your COVID-19 positive status in the past	14(28.0 %)	15 (30.0 %)	16 (32.0 %)	5 (10.0 %)
Mean stigma score (self) (SD)	6.5 (4.25)			
Mean stigma score (family) (SD)	1.30 (1.71)			
Mean stigma score (neighborhood/society) (SD)	6.10 (3.94)			
Total stigma score (SD)	13.9 (7.72); Range : 0–28			

staff on duty and the perceived mental health support received from the mental health professionals. These findings suggest that mental health professionals involved in the care of patients with COVID-19 infection, should encourage the patients to use more adaptive coping strategies, and provide a supportive environment to the patients to adapt to the

Table 9
Anxiety, depression during the hospital stay.

Variables	Whole sample (N = 50) Mean(SD)/ Frequency (%)
PHQ-4 Scale	
PHQ-4 Anxiety domain (2 items)	2.30 (1.18); Range: 0–5 Median:2.0
Anxiety : Present (cut off score≥3)	16 (32.0 %)
PHQ-4 Depression domain (2 items)	2.02 (0.86); Range: 0–4 Median:2.0
Depression : Present (Cut off ≥3)	10 (20.0 %)
Mean total PHQ-4 score	4.32 (1.75); Range : 1–9 ; Median:4.0
Severity of depression and anxiety as per PHQ-4	
Normal (0–2)	5 (10.0 %)
Mild (3–5)	32 (64.0 %)
Moderate (6–8)	11 (2.0 %)
Severe (9–12)	2 (4.0 %)
Overall prevalence	
% of patients reporting PHQ-4 anxiety score ≥3	16 (32.0 %)
% of patients reporting PHQ-4 depression score≥3	10 (20.0 %)
% of patients reporting only anxiety but no depression	9 (18.0 %)
% of patients reporting only depression but no anxiety	3 (6.0 %)
% of patients reporting both anxiety and depression	7 (14.0 %)
% of patients reporting anxiety either/or depression or both	19 (37.3 %)

new situation. Additionally, those mental health professionals, who are involved in the training of other staff, should focus on improving the communication skills of the staff, so that the patients could feel at ease, as has feel suggested by some of the authors (Grover et al., 2020). In terms of coping, the present study suggests that the majority of the patients reported following religious techniques (remembering God, praying God, listening to religious songs/discourses, etc.) to deal with the stress and found it to be useful. This finding can be understood from various perspectives. First, people in India usually follow one or the other religion (Ministry of Home Affairs, and Government of India, 2020), turn to God at the time of crisis (“Power of prayer, 2020), and possibly externalizing the responsibility to a higher power leads to a reduction in the anxiety and distress (Weber and Pargament, 2014). Accordingly, clinicians involved in managing people with COVID-19 infection should carefully evaluate the religious beliefs and practices of the persons, and if they find that the person has been successfully using positive religious coping in the past, they should be encouraged to use the same.

Another interesting finding of the present study is the change in the perspectives towards life after surviving COVID-19 infection. The increase in faith in God increased, which can be explained by religious beliefs. However, an important aspect of change of perspective increased in the faith in human relationships. This finding possibly reflects that prior to COVID-19, people did not value the importance of relationships, and they were fighting with each other from various materialistic things. However, when the humans have been faced with an enemy, which cannot be defeated by any currently available means, except for being able to support each other and cooperate with each other, people start valuing the importance of relationships (Editorial, 2020). These findings suggest that there is a need to evaluate this aspect in more detail in the future to understand the impact of the pandemic on the human psyche per se. However, there was not much impact with respect to the power of money, with only one-fourth of the participants reporting a reduction in the faith of the power of money. This could be due to the fact that a

Table 10
Relationship between anxiety, depression with clinical variables.

	Age	Duration of stay	PHQ-4 anxiety	PHQ-4 depression	Total PHQ-4	Total Stigma score
Age	XX	0.149 (0.303)	0.021 (0.886)	0.032 (0.823)	0.030 (0.835)	-0.169 (0.214)
Duration of stay	XX	XX	0.046 (0.753)	-0.224 (0.118)	-0.080 (0.581)	0.091 (0.529)
PHQ-4 anxiety	XX	XX	XX	0.451 (0.001)***	0.897(<0.001)***	0.046 (0.752)
PHQ-4 depression	XX	XX	XX	XX	0.799 (<0.001)***	-0.279 (0.049)*
Total Stigma score	-0.169 (0.214)	0.091 (0.529)	0.046 (0.752)	-0.279 (0.049)*	-0.107 (0.458)	XX
Total Coping score	-0.138 (0.341)	0.277 (0.051)	-0.280 (0.049)*	-0.267 (0.061)	-0.321 (0.023)*	-0.034 (0.816)

significant proportion of our study sample came from low or low middle-income strata, who were already struggling with financial issues, prior to being diagnosed with COVID-19 infection.

Another aspect which this study tried to evaluate was the anticipatory stigma among the patients prior to discharge. Stigma has emerged as an important outcome of COVID-19 infection, because of discrimination faced by people in quarantine and after coming out of quarantine and few reports of discrimination have been reported by COVID-19 recovered patients (Times of India, 2020; Tribune News, 2020). Additionally, there are several reports of people considering the recovered patients as carriers of infection ("A guide to preventing and addressing social stigma associated with COVID-19, 2020"; Defeated virus, unable to dodge stigma, 2020). WHO has issued an advisory to people to break the social stigma and discriminatory behavior toward people from a certain ethnic background and those who have recovered from COVID-19 infection. The current study was first of its kind to explore the anticipatory stigma close to the discharge from the hospital and revealed that people have a high level of public/societal stigma in different aspects (people feeling uncomfortable, being unkind, avoiding to touch, avoiding and people being afraid of recovered patients), compared to self-stigma and apprehension of being stigmatized by their family members. This finding suggests that it is important to create awareness in the public about COVID-19 infection and how they should react to people who have recovered from COVID-19 infection.

Our finding suggests that, despite being provided psychological support, about two-fifth (38 %) of the people diagnosed with COVID-19 infection screen positive for anxiety disorder and/or depression close to their discharge. This suggests that overall, going through the experience of COVID-19 infection is very stressful, and despite providing psychological support, many patients go on to develop psychological morbidity. This finding suggests that there is a need to follow-up the patients with COVID-19 infection, even after discharge to evaluate them for ongoing psychiatric morbidity and manage the same adequately.

The present study has certain limitations, which must be kept in mind while interpreting the results. These include a small sample size, and the majority of the study participants being asymptomatic or minimally symptomatic for COVID-19 infection. We evaluated the experience of the patients, close to the discharge. In the real sense, this could be considered as retrospective evaluation. Further, these patients were provided psychological support during the hospital stay, which could have influenced the experience of the patients. Further, the experience could have also been evaluated by the treatment setting, per se. We did not evaluate for symptoms of post-traumatic stress disorder. Two-fifth of the participants screened positive for depression and anxiety, but this could be an underestimate, considering the fact that they were provided psychological support during the hospital stay.

To conclude, the present study suggests that going through the whole experience of COVID-19 infection, in the form of staying in isolation wards could be very stressful, even for patients who are minimally symptomatic or asymptomatic. Use of adaptive copings, such as remembering and praying to God, talking to family and friends, and interaction with mental health professionals, could help reduce the distress. Despite being provided psychological support, about two-fifths of the patients develop psychological morbidity.

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We have no financial disclosure to make.

Declaration of Competing Interest

The authors declare that they have no conflict of interest.

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