



ORIGINAL RESEARCH



Psychological Well-Being of COVID Positive Patients During Quarantine in a South Indian Private Hospital



Author's Contribution:

- A – Study design;
- B – Data collection;
- C – Statistical analysis;
- D – Data interpretation;
- E – Manuscript preparation;
- F – Literature search;
- G – Funds collection

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Background and Aim of Study:

Abstract

The Coronavirus disease 2019 (COVID-19) pandemic has led to unparalleled hazards to mental health globally. Many countries around the world have introduced quarantine measures. Quarantine has changed not only the plans of most people, but also their way of life. The greatest impact of quarantine is experienced by COVID positive patients who are isolated in a hospital. The aim of the study: to explore psychological well-being of COVID positive patients during quarantine in a private hospital.

Material and Methods:

In this study, 100 patients who were COVID positive were requested to fill the Quality of Life Questionnaire. A pre-validated questionnaire was used to assess the depression score amongst COVID positive patients. The analysis of the answers and respondent opinions was conducted using the Pearson method, which produced statistically relevant results.

Results:

The studied aspects of mental health patients: sleep, appetite, crying spells; happiness and hope for the future; ability to concentrate and focus and getting disturbed easily by trivia; support received from family and friends; overall outlook of life and ability to stay happy in solitude. As a result, qualitative indicators of the patients' mental health during quarantine in a private hospital were obtained.

Conclusions:

The data obtained showed that patients managed to stay happy and eat well but they talked less, had disturbed sleep and did not look forward towards a hopeful future. Some were able to shake away the blues with family, friends on Online Media but some got depressed and got crying spells and thought that their life was a failure. The study concluded that patients on quarantine were often depressed. Many patients might benefit if psychological counselling and support are employed during quarantine measures.

Keywords:

mental health, psychological well-being, quarantine, pandemic, COVID-19

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Introduction

In December 2019 there was a sudden rise in cases of pneumonia in Wuhan city, China which was later designated as Coronavirus disease by the World Health Organization (WHO) on February 11, 2020. This Coronavirus is identified as a novel strain of coronavirus that shares 79% of genetic similarity with SARS-CoV from the SARS outbreak 2003. On March 11, 2020, the WHO declared the outbreak a global pandemic (Anand et al., 2020). This outbreak has changed various aspects of the economy resulting in vast decline in tourism, aviation, agriculture and financial sectors of the country (Nicola et al., 2020). The consequences of this pandemic affected the physical and mental health of individuals more than the world anticipated (Brooks et al., 2020; Fiorillo & Gorwood, 2020; Hanna et al., 2018; Lima et al., 2020). Resulting COVID-19 has required many countries across the globe to implement early quarantine measures as the fundamental disease control tool. Mental disorders, such as anxiety, depression, are attributed to risk factors including loneliness, frustration, which is inevitable in the majority of the population during quarantine (Kang et al., 2020; Shigemura et al., 2020; Park, S.-C., & Park, 2020). Altruistic behavior towards self-isolation and voluntary quarantine should be encouraged after proper clarification through mass communication to minimize distress and long-term complications of imposed quarantine.

The aim of the study. To explore psychological well-being of COVID positive patients during quarantine in a private hospital.

Materials and Methods

In this study 100 patients who were COVID-19 diagnosed as positive by RTPCR, were requested to fill

the questionnaire. This study was approved by the Ethical and Research Board. Voluntary written informed consent was obtained in all cases. Permission was obtained from the Ethical Committee at Saveetha Medical College and Hospital, Chennai, India. A validated questionnaire was used to assess the depression score amongst COVID-19 positive patients. This study was conducted from May 2020 to September 2020.

Sample Size and Collection

A total of 100 COVID-19 positive patient in age group 18-60 years by RTPCR who underwent quarantine were requested to fill the Google questionnaire form "Psychosocial Impact of COVID-19 Pandemic" after written informed consent in local language. The participation was voluntary. A total of 68 responses were received and were obtained in the study. The pre-validated DSM 4 (ICDS) questionnaires were used to assess the depression score amongst COVID-19 positive patients and data was analyzed using automated Google pie charts and Percentages. Patients with a pre-existing psychiatric illness those who are not willing to be a part of the study were excluded from the study.

Data Analysis

Data was analyzed for calculating the percentage of patient with different depression score. Automated Graphs were used to analyze the data.

The analysis of the answers and respondent opinions was conducted using the Pearson method, which produced statistically relevant results.

Results

Questionnaires were sent to 100 patients out of whom 68 responded. The summary results of the respondents' answers according to the developed questionnaire are shown in Table 1.

Table 1

Summary Results of Respondents' Answers According to the Developed Questionnaire

Queries for participants	Distribution of the participants number according to the responses (people/%)				
	A	B	C	D	Total
1. I was bothered by things that really don't bother me	31/47.0	19/28.8	7/10.6	9/13.6	66/100.0
2. I could not get going	29/44.6	24/36.9	6/9.3	6/9.2	65/100.0
3. I felt like people dislike me	43/65.2	16/24.2	3/4.5	4/6.1	66/100.0
4. I felt sad	28/41.8	19/28.4	12/17.9	8/11.9	67/100.0
5. I had crying spells	48/73.8	10/15.4	6/9.2	1/1.6	65/100.0
6. I enjoyed life	11/16.6	7/10.6	10/15.2	38/57.6	66/100.0
7. People were unfriendly	42/63.6	19/28.8	4/6.5	1/1.1	66/100.0
8. I felt lonely	31/46.3	20/29.9	7/10.4	9/13.4	67/100.0
9. I had trouble keeping my mind on what I was doing	31/47.0	21/31.8	5/7.6	9/13.6	66/100.0
10. I did not feel like eating; my appetite was poor	34/51.5	17/25.8	7/10.6	8/12.1	66/100.0
11. I felt that I could not shake off the blues with the help from my family or friends	47/71.2	13/19.7	3/4.2	3/4.9	66/100.0
12. I felt I was just as good as other people	3/4.4	5/7.3	4/5.9	56/82.4	68/100.0
13. I felt that everything I did was an effort	20/30.3	11/16.6	5/7.6	30/45.5	66/100.0
14. I talked less than usual	28/41.8	15/22.4	7/10.4	17/25.4	67/100.0
15. I was happy	11/16.7	4/6.0	7/10.6	44/66.7	66/100.0
16. My sleep was restless	25/37.3	23/34.3	11/16.5	8/11.9	67/100.0
17. I felt fearful	38/56.7	15/22.4	6/9.0	8/11.9	67/100.0
18. I thought my life had been a failure	52/78.8	5/6.9	4/6.7	5/7.6	66/100.0
19. I felt hopeful about the future	6/8.8	10/14.7	8/11.8	44/64.7	68/100.0
20. I felt depressed	49/73.1	5/7.5	4/6.0	9/13.4	67/100.0



Figures 1 to 20 show the graphical representation of number of patients with different dimensions of mental health. The aspects of sleep, appetite, crying spells were recorded. The dimensions of happiness and hope for the future were analyzed. Ability to concentrate and focus and getting disturbed easily by trivia was also studied. The support received from family and friends was documented. Overall outlook of life and ability to stay happy in solitude was assessed.

According to Figure 1 a total of 47.0% respondents rarely felt that they were bothered by the things that really don't bother them; 28.8% – sometimes felt such a state; only 13.6% respondents were bothered by the things that usually don't bother them.

Figure 1
 Distribution of Respondents' Answers to Query 1

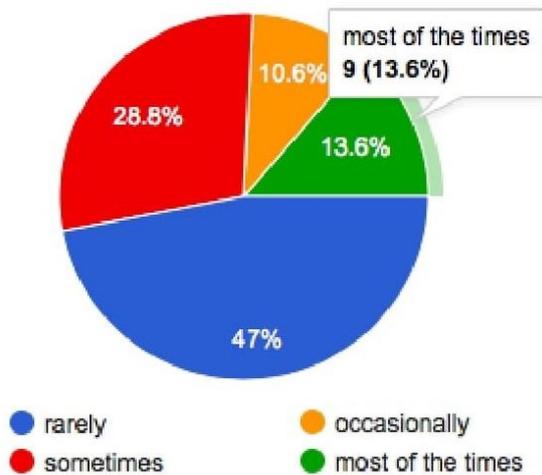
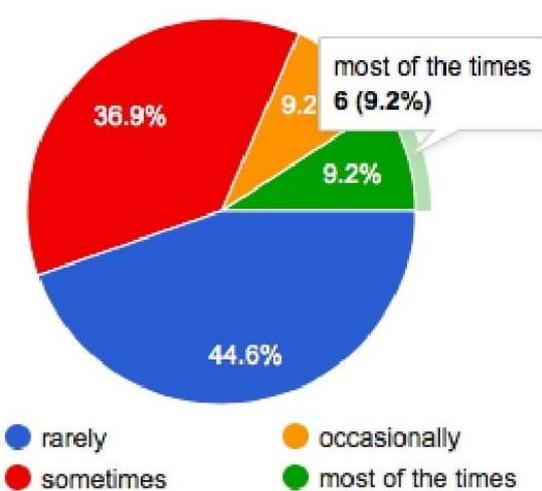


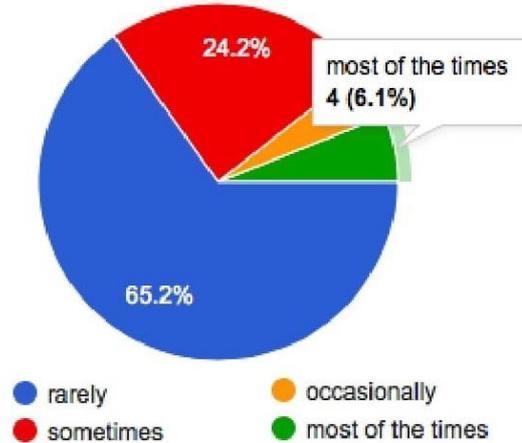
Figure 2 shows that respondents felt as they could not get going: rarely – 44.6%, sometimes – 36.9%, occasionally – 9.3%, most of the time – 9.2%.

Figure 2
 Distribution of Respondents' Answers to Query 2



A total of 65.2% respondents felt that people rarely disliked them, only 6.1% respondents felt such a state most of the time (Figure 3).

Figure 3
 Distribution of Respondents' Answers to Query 3



The respondents answered about the sad feeling as follows (Figure 4): rarely – 41.8%, sometimes – 28.4%, occasionally – 17.9%, most of the time – 11.9%.

Figure 4
 Distribution of Respondents' Answers to Query 4

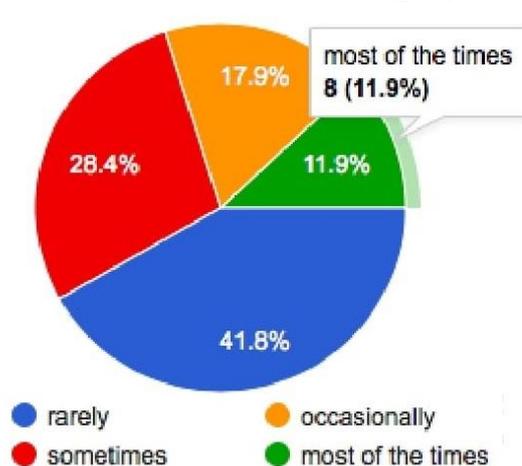
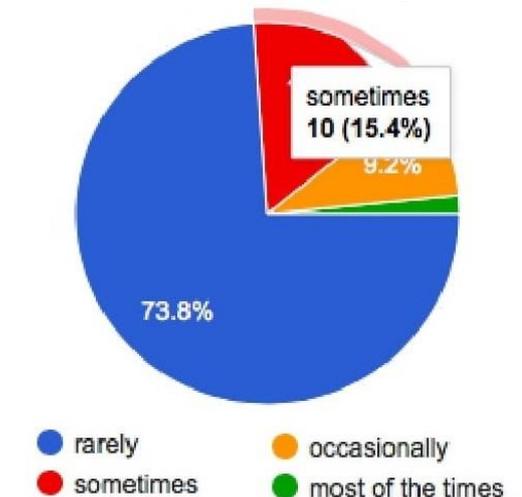


Figure 5 shows that 73.8% respondents rarely had crying spells, 15.4% – sometimes had such a state.

Figure 5
 Distribution of Respondents' Answers to Query 5

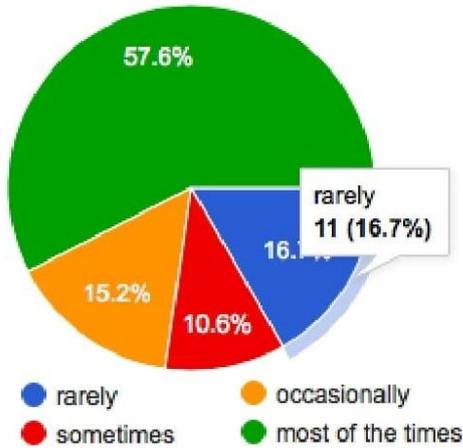




Most of the respondents (57.6%) answered to have enjoyed their life during the quarantine period, but 16.6% rarely enjoyed their life in the quarantine period (Figure 6).

Figure 6

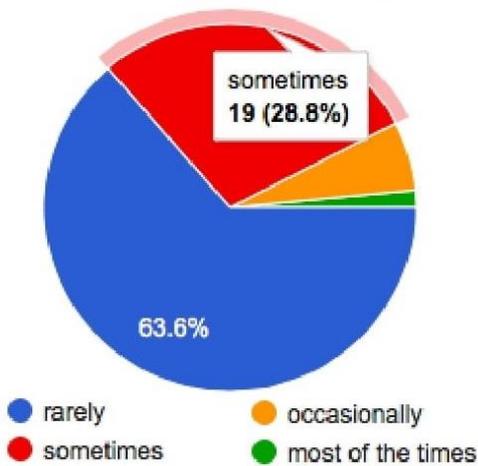
Distribution of Respondents' Answers to Query 6



About 63.6% respondents rarely felt that people were unfriendly to them, 28.8% of respondents felt that people sometimes were unfriendly to them (Figure 7).

Figure 7

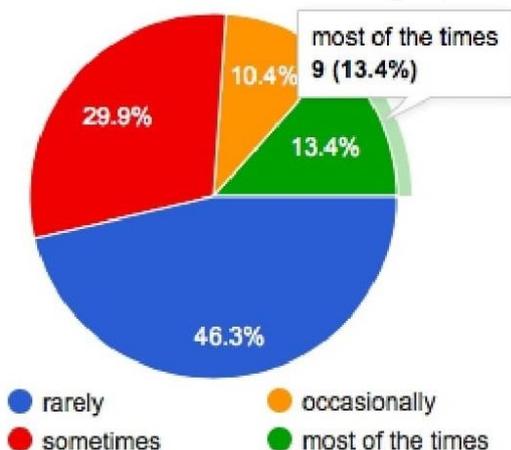
Distribution of Respondents' Answers to Query 7



A total of 13.4% respondents felt lonely for most of the time; 46.3% – rarely felt lonely; 29.9% – sometimes felt lonely (Figure 8).

Figure 8

Distribution of Respondents' Answers to Query 8



A lot of people occupied themselves with other activities like WhatsApp, Twitter, Facebook and other online social media. Figure 9 shows that 13.6% respondents were unable to concentrate whatever they were doing most of the time; 47.0% respondents rarely had trouble keeping their mind on what they were doing.

Figure 9

Distribution of Respondents' Answers to Query 9

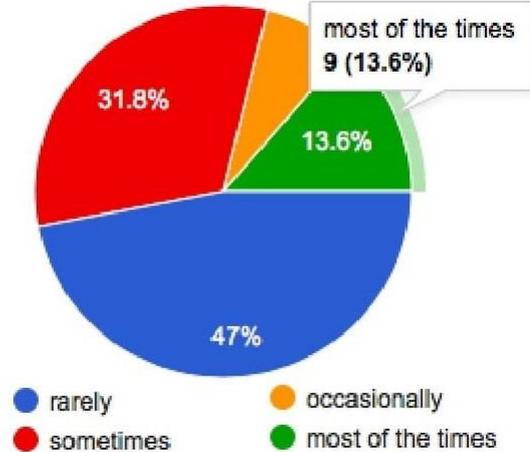


Figure 10 shows that 51.5% respondents had a good appetite, but 12.1% respondents had poor appetite most of the time.

Figure 10

Distribution of Respondents' Answers to Query 10

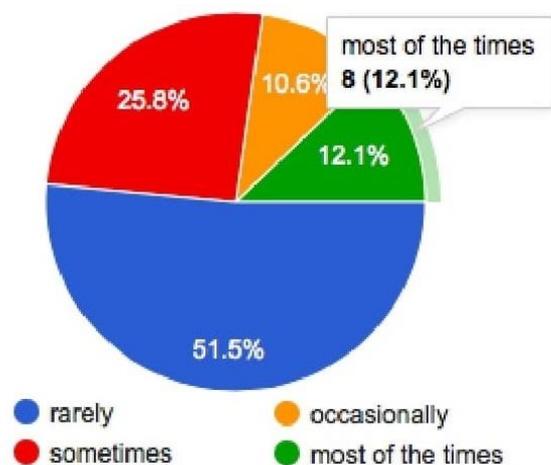
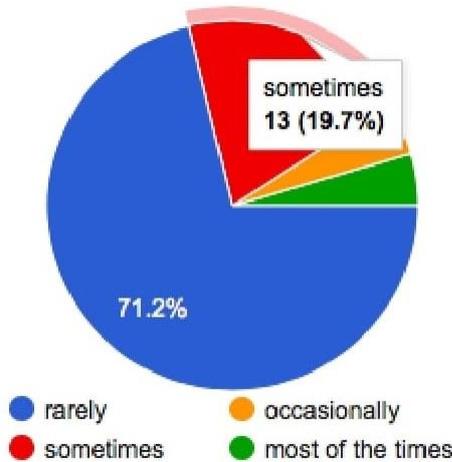


Figure 11 shows that 71.2% respondents rarely felt that they could not shake off the blues with the help from family and friends, and 19.7% respondents agreed that they were able to shake away the blues with the help of family and friends sometimes.



Figure 11
 Distribution of Respondents' Answers to Query 11



A total of 82.4% respondents felt that they were just as good as other people, but 4.4% respondents rarely felt that they were just as good as others (Figure 12).

Figure 12
 Distribution of Respondents' Answers to Query 12

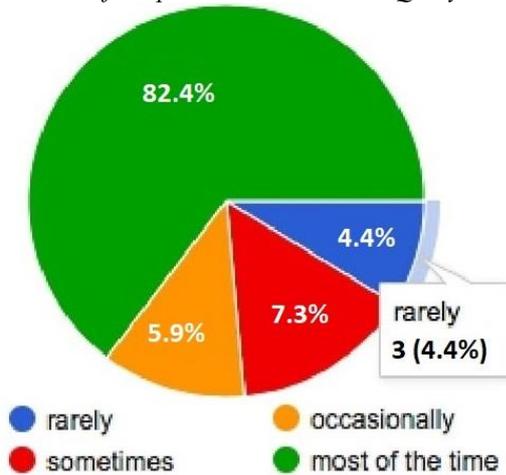
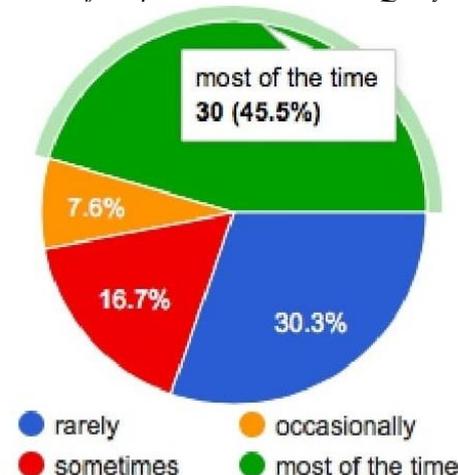


Figure 13 shows that 45.5% respondents felt that everything they did was an effort most of the time, 30.3% respondents rarely felt such a state.

Figure 13
 Distribution of Respondents' Answers to Query 13



A total of 41.8% respondents rarely felt that they talked less than usual, 25.4% respondents –most of the time felt such a state (Figure 14).

Figure 14
 Distribution of Respondents' Answers to Query 14

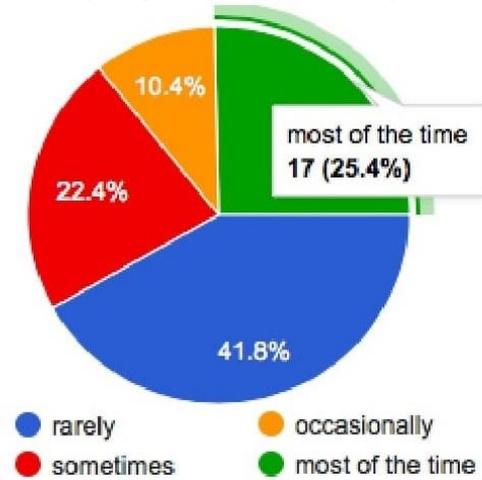
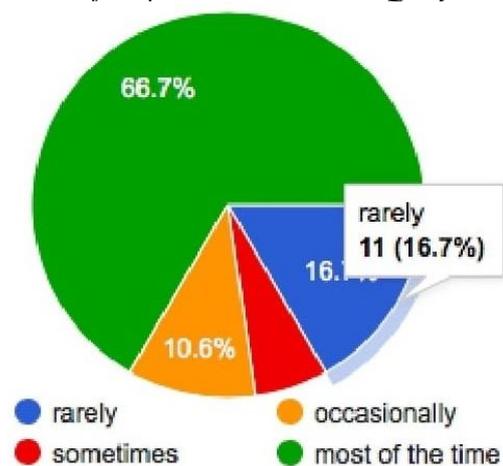


Figure 15 shows that most of the respondents (66.7%) felt happy most of the time, but 16.7% – were unhappy.

Figure 15
 Distribution of Respondents' Answers to Query 15



According to Figure 16 37.3% respondents rarely, 34.3% respondents sometimes had restless sleep.

Figure 16
 Distribution of Respondents' Answers to Query 16

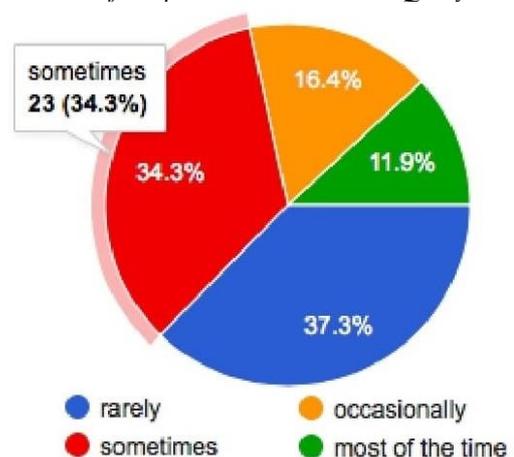




Figure 17 shows that 11.9% respondents felt fearful most of the time, 56.7% – rarely felt fearful.

Figure 17

Distribution of Respondents' Answers to Query 17

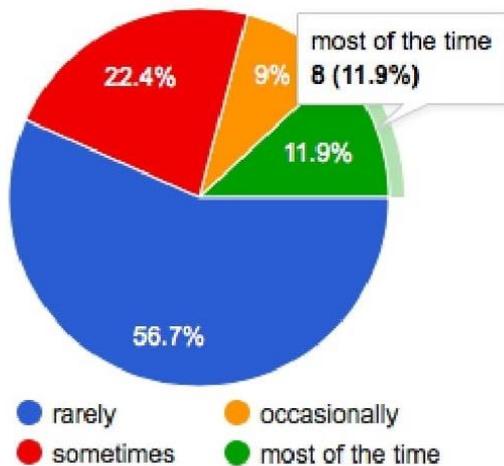
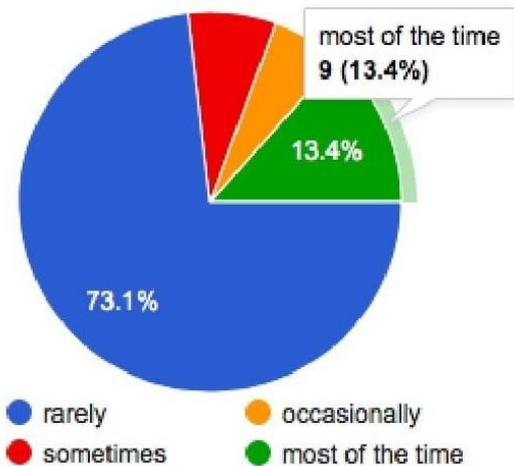


Figure 20 shows that a few respondents (13.4%) actually felt depressed, while 73.1% – rarely felt depressed.

Figure 20

Distribution of Respondents' Answers to Query 20



A total of 78.8% respondents rarely thought that their life had been a failure, but 7.6% – thought that their life had been a failure most of the time (Figure 18).

Figure 18

Distribution of Respondents' Answers to Query 18

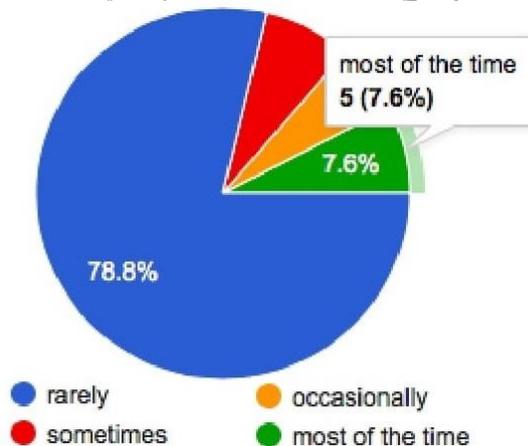
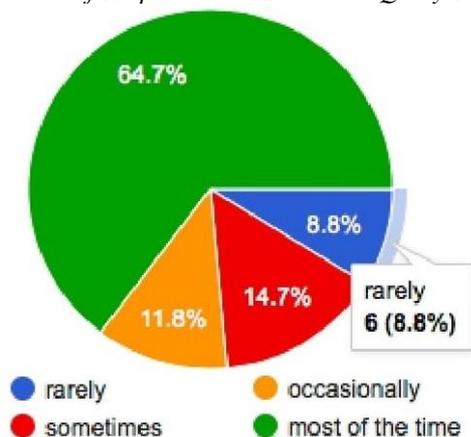


Figure 19 shows that 64.7% respondents most of the time were hopeful about the future, but 8.8% – rarely felt hopeful.

Figure 19

Distribution of Respondents' Answers to Query 19



Despite the fact that the study was conducted in India, its results can be useful to scientists for research on the COVID problem around the world.

Discussion

Our study explored the mental health status of the general population amidst the COVID-19 pandemic. Generally, there is a higher prevalence of symptoms of adverse psychiatric outcomes among the public when compared to the prevalence before the pandemic (Huang et al., 2019). The quarantine imposed due to the coronavirus outbreak adversely influenced people's economy because of an increase in the rate of unemployment. This led to an increased financial crisis among people and decrease in the quality of life. All these factors can put individuals at greater risk for developing adverse psychological symptoms.

Xiong et al. (2020) found that there are relatively high rates of symptoms of anxiety depression and post-traumatic stress disorders, psychological distress and stress in the general population during the COVID-19 pandemic in China. But in our study, most of the people (13.4%) felt depressed and 11.9% had sleep disturbances most of the time.

According to a study by Brooks et al. (2020), the severity of stress related symptoms will depend upon the quarantine duration and extent, the fear of being infected, feeling lonely. In our study, we found 11.6% of people felt fearful most of the time and 13.4% of people felt lonely most of the time.

According to Zhang and Ma (2020), they found a higher prevalence of insomnia, anxiety, depressive symptoms, somatization, and obsessive-compulsive symptoms in mental health staff.

A systematic review and meta-analysis (including studies from 2000 to 2014) showed an impact of an epidemic/pandemic on the mental health of health care professionals, as "probable" percentage of cases (Vyas et al., 2016). In this review, psychological distress was assessed in 13 studies, with an average rate among exposed HCPs of approximately 40% (range: 11–75%). Insomnia was assessed in four studies, with an average



rate among exposed HCPs of approximately 39% (range: 30–52%). Posttraumatic stress disorder (PTSD) symptoms were assessed in 19 studies, with an average rate of approximately 21% (range: 10–33%), of whom 40% reported persistently high PTSD symptoms 3 years after exposure. Meta-analytic results showed effects were small, (SMD = 0.12, 95% CI = -0.23 to 0.47), but not significant. Depression symptoms were measured in 8 studies, with an average rate of approximately 46% (range: 23–74%), of whom up to 9% reported severe levels. 11% were clinically diagnosed 1 month after the disease outbreak. Meta-analytic results showed effects were moderate (SMD = 0.40, 95% CI = 0.24–0.51) and significant. Anxiety symptoms were assessed in fourteen studies. The average rate was approximately 45% (range: 19–77%). Meta-analytic results showed effects were small, (SMD = 0.08, 95% CI = -0.09 to 0.25) and not significant. In our study 67.7% of the people felt happy and 75% of the people were hopeful about the future.

One systematic review (Brooks et al., 2018) synthesizing the social and occupational factors affecting the mental health of HCPs covered the literature up to 2015 and included 22 studies, all of which had investigated the SARS epidemic. Brooks et al. (2018) identified six organizational and four social factors as showing an influence on mental health outcomes. For this rapid review, no further evidence of social and organizational factors published after 2015 was identified amongst our accepted papers. Below is a brief summary of the organizational and social factors found by Brooks et al. (2018) and associated data can be found in the study (Brooks et al., 2018). Further predictors, beyond organizational and social factors, may also influence the impact of epidemics/pandemics on mental health.

In another review it was observed that subsyndromal psychological states were common during COVID pandemic. Anxiety, depression and self-reported stress are some of the commonly reported symptoms (Rajkumar, 2020).

A study from Iran has revealed certain causes of stress and mental morbidity during COVID can be resulting from misinformation, social isolation and unpredictable nature of the disease (Zandifar & Badrfam, 2020).

Western countries have incorporated psychological interventions into their protocols for COVID outbreaks, this has not yet happened in countries such as China, India, other developing nations leading to increased prevalence of stress-related disorders in COVID affected persons. There is definitely a need for development of intervention strategies in managing COVID affected patients in hospital wards (Duan & Zhu, 2020).

Lima et al. (2020) have pointed out anxiety and depression as the most important COVID related psychological morbidity among general population and also among patients. This calls for training among health care personal for dealing COVID patients and use of technology in delivering mental care.

Resistance to post-traumatic stress reactions of vulnerable groups engaged in pandemic COVID-19 liquidation has been studied by Melnyk, Stadnik, and Pypenko (2020).

Health anxiety is the term used by some authors which is a state of mind where certain body functioning mechanisms can be misinterpreted as symptoms of infectious pandemic disease. With COVID-19 media coverage, misinformation and exaggerated information can result in excessive health anxiety not only in COVID patients but also among general population. This can result in maladaptive behaviors among masses like hoarding items, refusing treatments or making multiple visits to health care facilities etc. (Asmundson & Taylor, 2020a; 2020b).

Conclusions

The present study suggests that there is an increased stress during isolation and quarantine during pandemics. Patients manage to stay happy and eat well but they talk less, have disturbed sleep and do not look forward towards a hopeful future. Some are able to shake away the blues with family, friends on Online Media but a few do get depressed and get crying spells and think that their life is a failure. Patients often realize that the disease is difficult to cure and whatever they do is just an effort and not a cure. Many patients might benefit if psychological counselling and support are employed during quarantine measures.

Acknowledgements

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Ethical Approval

The present study was approved by the Institutional Human Ethics Committee, Saveetha Medical College and Hospital, Chennai, India (SMCH/07/116/20 from 03.07.2020).

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