

Psychological Distress and Quality of Life among Hospital Staff in India during COVID-19 Pandemic

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Abstract

Background: Hospital staff has been constant and at the forefront to provide treatment services to the patient with risk of COVID-19 infection. The fear and uncertainty forced by the COVID-19 pandemic have become a risk for physical and psychological health among health care professionals.

Aim: To explore the stress, anxiety, depression, and quality of life among hospital staff working in general and mental health hospitals during the outbreak of the COVID-19 pandemic.

Methods: The present survey was an online study among hospital staff in India. We received a total of 373 responses by the stipulated time from hospital staff - participants with written consent diverted for further study. Socio-demographic datasheet, quality of life (QOL- BREF), depression, anxiety, and stress scale (DASS-21) were included in the Google form.

Results: The results showed 2.4% of depression, 6.3% of anxiety, and 5.9% of stress among hospital staff. Nursing staff, physicians, and lab technicians had higher stress, anxiety, and depression. The result also revealed 4.3% physical, 16.6% psychological, 65.4% social, and 21.7% environmental health had a poor level of QOL in hospital staff.

Conclusion: Healthcare workers are stressed, anxious, and depressive while working in the COVID-19 pandemic situation. To sustain and develop quality in healthcare services, physical and psychological wellness programs can enhance mental health and quality of life among hospital staff.

Keywords: Stress, Anxiety, Depression, Hospital staff, Quality of life, COVID-19

Introduction

The coronavirus infection or COVID 19 is one of the biggest medical challenges to humankind in recent times. The first cluster of COVID 19 cases, in Wuhan, China, in December 2019, and since then, has spread to almost all the countries of the world by Jan-Feb 2020 (Li et al., 2020). The total number of confirmed cases worldwide is more than 2,04,39,814, with more than 23,96,637 cases in India alone (World Health Organization, 2020). Health care workers are advised to be in the front with all the safety to help humankind overcome the pandemic situation (World Health Organization, 2020). A significant risk of poor mental health outcomes during the COVID-19 pandemic was present in healthcare workers. They are facing many difficulties, which include fear, long duty hours, risk of infection, loneliness, physical fatigue, shortages of protective equipment, and separation from families and relatives (Kang et al., 2020). The viral epidemic has affected the medical and nursing staff (Chong et al., 2004; Wu et al., 2009).

The COVID-19 pandemic is similar to severe acute respiratory syndrome (SARS). Psychological burden, psychological distress, sleep disturbances, post-traumatic stress, and sleep disturbances were experienced by healthcare workers during a pandemic period like SARS and COVID-19 (Wu et al., 2009; Maunder et al., 2003; Xiang et al., 2020; Pappa et al., 2020; Lu et al., 2009). Health care workers experienced higher mental health symptoms than other non-medical workers (Lai et al., 2020). These mental health issues can bend as significant predictors for psychiatric morbidities during duty hours (Chatterjee et al., 2020). Liu et al., (2020) pointed out that mental health professionals who work in critical care may need to work mainly to minimize stress and risk of depression. Kang et al., (2020) addressed telephonic helpline for healthcare workers who have reported a positive impact on mental health problems. This study intends to assess the experiences of healthcare workers during the pandemic period. The present study was determined to evaluate the stress, anxiety, depression, and quality of life among hospital staff during the outbreak of the COVID-19 pandemic.

Materials and Methods

The survey was an online study among the hospital staff in India. We used Google forms to share the link to the questionnaire. Participants contacted through WhatsApp, email, Facebook, Instagram, LinkedIn, and other social media contacts. The Google form had different sections like information sheet, consent form, & datasheet. We ensured participants to maintain the confidentiality of their responses in google form. The survey was carried out from April 23, 08:00 hrs, and ended on May 24, 21:34 hrs (IST time). The survey link clearly stated that the participants could withdraw their participation back at any time before submitting his/her response. A total of 373 responses were received at the predetermined time from hospital staff. The study included hospital staff above the age of 18 years, both the gender, able to read and comprehend the English language, and having Smartphones with internet access. Institutional Ethics Committee of Central India Institute of Mental Health and Neuro Sciences, Chhattisgarh approved this study.

Tools Used

Socio-demographic Datasheet: The socio-demographic datasheet developed for the present study consisted of variables like age, sex, education, occupation, family type, and work-related information.

Depression Anxiety Stress Scales (DASS-21): Lovibond and Lovibond (1995) developed 21-items DASS-21 to measure the negative emotional states of depression, anxiety, and stress. Respondents are asked to use four-point severity/frequency scales to rate the extent to which they have experienced each state over the past week. It shows that a high score is indicative of a high level of depression, anxiety, and stress. The test-retest reliability coefficient of this test is 0.48, and Cronbach's alpha internal consistency coefficients range from 0.89 to 0.96.

The World Health Organization Quality of Life WHOQOL-BREF (World Health Organization, 1996): WHOQOL-BREF has been derived from the original World Health Organization Quality of life scale. It is a 26 items scale that contains physical, psychological, social, and environmental health domains. Cronbach alpha internal consistency coefficients range from 0.59 to 0.87. The scores of QOL classified between poor-fair-good. The cut-off points of poor, fair, and good QOL are 7 to 16, 17 to 26, and 27 to 35 for a physical domain, 6 to 14, 15 to 22, and 23 to 30 for a psychological domain, 3 to 7, 8 to 11, and 12 to 15, for social relationship and 8 to 18, 19 to 29, and 30 to 40 for an environmental domain, respectively (Barišin et al., 2011).

Data Analysis

The statistical analysis was done using Statistical Packages for the Social Science (SPSS)-16 software package for windows. For socio-demographic variables, descriptive statistics were used, such as frequency, percentage, mean, and standard deviation (SD). The mean difference between continuous variables was seen by using a t-test. The significance level of $p \leq 0.05$ was set at the outset of the study.

Results

Table 1: Socio-Demographic Profile of the Participants (N=373)

| Variables | | (Mean ± SD) |
|--------------|----------------|-------------------------------|
| Age | | 29.79 ± 7.43 (range 21-60) |
| | | N (%) |
| Gender | Male | 178 (47.7%) |
| | Female | 195 (52.3%) |
| Education | Graduate | 152 (40.8%) |
| | Post-graduate | 162 (43.4%) |
| | M. Phil | 25 (6.7%) |
| | Ph. D | 34 (9.1%) |
| Occupation | Physician | 72 (19.3%) |
| | Psychiatrist | 18 (4.8%) |
| | Nursing | 157 (42.1%) |
| | Therapist | 107 (28.7%) |
| | Lab Technician | 19 (5.1%) |
| Family Types | Joint | 11 (12.6%) |
| | Nuclear | 326 (87.4%) |

SD = Standard deviation,
N = Number (373); % = percentage (100%)

Table 1 reveals the socio-demographic details of the participants. The mean and SD score of the hospital staff was 29.79±7.43, with an age range between 21-60 years. More than half (52.3%) of the participants were female, the majority (43.4%) of the participants had completed post-graduate education, maximum (42.1%) of them were nurses. Most (87.4%) of the participants belonged to the nuclear family.

Table 2: Prevalence of Depression, Anxiety, and Stress among Participants based on DASS-21 Score

| Variables | Stress N (%) | Anxiety N (%) | Depression N (%) |
|-----------|-----------------|------------------|---------------------|
| Normal | 140 (37.5%) | 173 (46.4%) | 227 (60.9%) |
| Mild | 96 (25.7%) | 76 (20.4%) | 72 (19.3%) |
| Moderate | 71 (19.1%) | 61 (16.4%) | 54 (14.5%) |
| Severe | 44 (11.8%) | 39 (10.5%) | 11 (2.9%) |

| | | | |
|------------------|--------------|--------------|-------------|
| Extremely Severe | 22 (5.9%) | 24 (6.3%) | 9 (2.4%) |
|------------------|--------------|--------------|-------------|

N = Number (373); % = percentage (100%)

Table 2 reported the prevalence of stress, anxiety, and depression (psychological distress) among participants based on DASS-21 scores at an extremely severe levels. The results showed 11.8% of stress, 10.5% of anxiety and 2.9% of the severe level of depression and 5.9% of stress, 6.3% of anxiety, and 2.4% of the extremely severe level of depression among hospital staff. This can be concluded that the level of depression, anxiety, and stress was high in-hospital staff during the pandemic.

Table 3: Level of Quality of Life in Hospital Staff

| Domains of WHOQOL BREF | Poor Level N (%) | Fair Level N (%) | Good level N (%) |
|------------------------|---------------------|---------------------|---------------------|
| Physical Health | 16 (4.3%) | 238 (63.8%) | 119 (31.9%) |
| Psychological Health | 62 (16.6%) | 257 (68.9%) | 54 (14.5%) |
| Social Health | 244 (65.4%) | 105 (28.2%) | 24 (6.4%) |
| Environmental Health | 81 (21.7%) | 280 (75.1%) | 12 (3.2%) |

N = Number (373); % = percentage (100%)

Table 3 reports the frequency and division of the three groups (poor, fair, and good level) according to the total quality of life among hospital staff based on WHOQOL BREF scores. In the physical health domain, very few (4.3%) had a poor level, and the majority (63.8%) had a fair level QOL score. More than half (68.9%) had a fair level of QOL, whereas the rest (16.6%) had a poor level of QOL in the psychological health domain. In the social health domain majority (65.4%) had a poor level of QOL, and more than one-third (28.2%) had a fair level of QOL. Nearly one-third (21.7%) had a poor level, whereas the majority (63.8%) had a fair level QOL score in the environmental health domain.

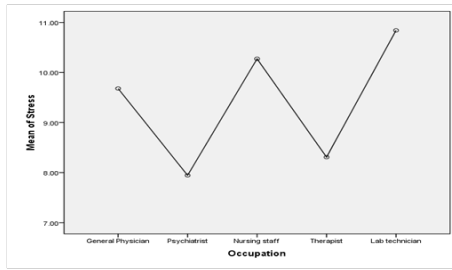


Figure 1: Mean of Stress among Hospital Staff

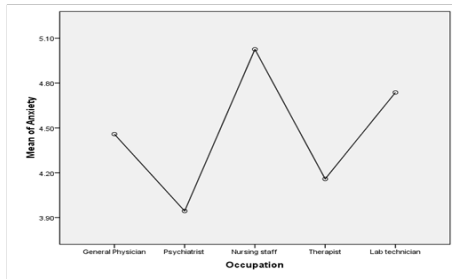


Figure 2: Mean of Anxiety among Hospital Staff

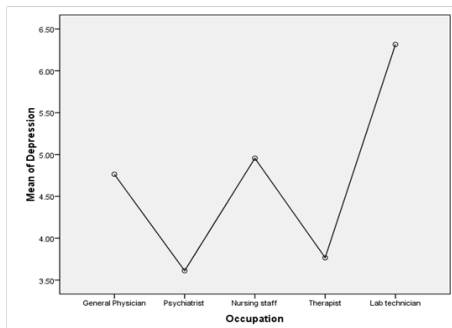


Figure 3: Mean of Depression among Hospital Staff

Figure 1, 2, and 3 shows that mean score of stress, anxiety, and depression among hospital staff. The high mean score of stress, anxiety, and depression was revealed among nursing staff, lab technicians, and general physicians compared to psychiatrists and therapists.

Discussion

The present study found 5.9% of stress, 6.3% of anxiety, and 2.4% of depression among hospital staff during the outbreak of the COVID-19 pandemic. Our result revealed that stress, anxiety, and depression were more in nursing staff, lab technicians, and general physicians than psychiatrists and therapists. Some earlier studies support this with similar findings. Zhang et al. found that during the

COVID-19 epidemic, medical health workers had high prevalence rates of severe insomnia, anxiety, depression, somatic disorder, and obsessive-compulsive symptoms non-medical health workers. Maunder et al. (2003) pointed out that healthcare workers had heavy anxiety, depression, panic attacks, or psychotic symptoms during the SARS. Xiang et al. (2020) revealed that higher stress, anxiety, depression, and panic attacks were present in medical health workers during the COVID-19 pandemic. Lai et al. (2020) reported higher depression, anxiety, sleep disturbance, and distress, especially those who directly indulged in patients with suspected or confirmed COVID-19. Chong et al. (2004) reported during the SARS pandemic, fear and anxiety appeared immediately in medical staff and decreased in the early stages of the epidemic. Still, depression and posttraumatic stress symptoms appeared later and lasted for a longer time. Wong et al. (2005) reported that during the SARS outbreak, health care workers were more likely to develop distress and use behavioral disengagement.

The present study has found that 4.3% physical, 16.6% psychological, 65.4% social, and 21.7% environmental health had a poor level of QOL among hospital staff. This study pointed out that the hospital staff had a poor quality of life in psychological, social, and environmental health. Some previous studies are related to and support this study. Fava et al. (2019) pointed out that healthcare workers must cope with psychological distress and are at risk of poor life quality. They face significant impairment in social or occupational functioning and feeling overwhelmed by the demands of everyday life. Maunder et al. (2003) have found heavy psychological burdens among healthcare workers and the general public during severe acute respiratory syndrome. Zhang et al. (2020) pointed that medical health workers were exposed might be related to the many difficulties of being safe at work, such as the initially insufficient understanding of the virus, the lack of prevention and control knowledge, the long-term workload, the high risk of exposure to patients with COVID-19. Chan-Yeung (2004) reported that the predictable shortages of supplies, an increasing influx of suspected and actual cases of COVID-19 contribute to pressure & concerns of health care workers.

Limitations

The present study had some limitations that this study was cross-sectional and used a small sample size. The sample varied on socio-demographic variables such as age, education, and occupation. DASS is a rating scale only. It is not a diagnostic test for anxiety and depression. The present study followed an accidental sampling technique. The assessment depicted the perceptions of individuals through self-report assessment in the current COVID-19 pandemic. The longitudinal study may help see the long-term effects of the COVID-19 pandemic on job stress, job satisfaction, family conflicts, and suicide ideation.

Implications

The present admits that the hospital staffs are vulnerable to experience problems related to mental health (depression, anxiety, and stress) and quality of life while working in the pandemic situation. The mental health professionals, policy makers, and government can take a step to secure the physical and mental health of healthcare workers to impart effective healthcare services. The basic required materials, stress management programs, counseling facilities, adequate workforce supply, etc., step and help to integrate and strengthen healthcare workers and systems.

Conclusion

The present study revealed higher psychological distress and poor quality of life to those directly engaged in health care services for persons with suspected or confirmed COVID-19. The health care workers can suffer from isolation, loss of social support, risks, or infections of family, friends, and relatives. Increased workload, physical exhaustion, inadequate personal equipment, and unsettling changes in the working experiences of health care workers can lead to mental health problems. Medical health workers are vulnerable to mental health problems, including fear, anxiety, depression, insomnia, obsessive-compulsive, and somatic symptoms.

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References

- Barisin, Andreja, et al. "Health-related Quality of Life of Women with Disabilities in Relation to their Employment Status." *Croatian Medical Journal*, vol. 52, no. 4, 2011, pp. 550-556.
- Chan-Yeung, Moira. "Severe Acute Respiratory Syndrome (SARS) and Healthcare Workers." *International Journal of Occupational and Environmental Health*, vol. 10, no. 4, 2004, pp. 421-427.
- Chatterjee, Seshadri Sekhar, et al. "Attitude, Practice, Behavior, and Mental Health Impact of COVID-19 on Doctors." *Indian Journal of Psychiatry*, vol. 62, no. 3, 2020, pp. 257-265.
- Chong, Mian-Yoon, et al. "Psychological Impact of Severe Acute Respiratory Syndrome on Health Workers in a Tertiary Hospital." *The British Journal of Psychiatry*, vol. 185, 2004, pp. 127-133.
- Fava, Giovanni A., et al. "Clinical Characterization of Allostatic Overload." *Psychoneuroendocrinology*, vol. 108, 2019, pp. 94-101.
- Kang, Lijun, et al. "Impact on Mental Health and Perceptions of Psychological Care among Medical and Nursing Staff in Wuhan during the 2019 Novel Coronavirus Disease Outbreak: A Cross-Sectional Study." *Brain, Behavior, and Immunity*, vol. 87, 2020, pp. 11-17.
- Lai, Jianbo, et al. "Factors Associated with Mental Health Outcomes among Health Care Workers Exposed to Coronavirus Disease 2019." *JAMA Network Open*, vol. 3, no. 3, 2020.
- Li, Qun, et al. "Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia." *New England Journal of Medicine*, vol. 382, no. 13, 2020, pp. 1199-1207.

- Liu, Ying, et al. "The Reproductive Number of COVID-19 is Higher Compared to SARS Coronavirus." *Journal of Travel Medicine*, vol. 27, no. 2, 2020.
- Lovibond, P.F., and S.H. Lovibond. "The Structure of Negative Emotional States: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories." *Behaviour Research and Therapy*, vol. 33, no. 3, 1995, pp. 335-343.
- Lung, For-Wey, et al. "Mental Symptoms in Different Health Professionals during the SARS Attack: A Follow-up Study." *Psychiatric Quarterly*, vol. 80, no. 2, 2009, pp. 107-116.
- Maunder, Robert, et al. "The Immediate Psychological and Occupational Impact of the 2003 SARS Outbreak in a Teaching Hospital." *CMAJ: Canadian Medical Association journal*, vol. 168, no. 10, 2003, pp. 1245-1251.
- Pappa, Sofia, et al. "Prevalence of Depression, Anxiety, and Insomnia among Healthcare Workers during the COVID-19 Pandemic: A Systematic Review and Meta-Analysis." *Brain, Behavior, and Immunity*, vol. 88, 2020, pp. 901-907.
- Wong, Tai W., et al. "The Psychological Impact of Severe Acute Respiratory Syndrome Outbreak on Healthcare Workers in Emergency Departments and How They Cope." *European Journal of Emergency Medicine*, vol. 12, no. 1, 2005, pp. 13-18.
- WHOQOL-BREF: Introduction, Administration, Scoring and Generic Version of the Assessment*, WHO, 1996.
- Coronavirus Disease (Covid-19) Outbreak: Rights, Roles and Responsibilities of Health Workers, Including Key Considerations for Occupational Safety and Health*, WHO, 2020.
- Coronavirus Disease (COVID-2019)*, World Health Organization, 2020.
- Wu, Ping, et al. "The Psychological Impact of the SARS Epidemic on Hospital Employees in China: Exposure, Risk Perception, and Altruistic Acceptance of Risk." *Canadian Journal of Psychiatry*, vol. 54, no. 5, 2009, pp. 302-311.
- Xiang, Yu-Tao, et al. "Timely Mental Health Care for the 2019 Novel Coronavirus Outbreak is Urgently Needed." *The Lancet Psychiatry*, vol. 7, no. 3, 2020, pp. 228-229.
- Zhang, Wen-rui, et al. "Mental Health and Psychosocial Problems of Medical Health Workers during the COVID-19 epidemic in China." *Psychotherapy and Psychosomatics*, vol. 89, 2020, pp. 242-250.

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