Original Research Article

Burn out and depression in paramedical workers of tertiary care hospital during COVID-19 pandemic

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ABSTRACT

Background: Medical/paramedical professionals are prone to various behavioral disorders due to work pressure. Aim: To evaluate burnout and depression in paramedical workers of a tertiary care hospital during COVID-19. Methods: Paramedical health care workers were assessed using online questionnaire containing self-administered questionnaire in this cross-sectional study between March 2021 and May 2021. Burnout self-test, depression, and anxiety were measured.
Results: In this study, only 2.6% had at very severe risk of burnout and 7.8% were at severe risk of burnout while 3.9% had no signs of burnout. Approximately 80% of the patients had no depression. While there were 19.5% had mild to severe depression. Only eight out of 77 subjects had clinically significant symptoms of anxiety. Two subjects were having comorbid illness.
Conclusions: A considerable percentage of HCWs experience burnout, depression, and anxiety.

Keywords: COVID-19, Burnout, Depression, Anxiety

INTRODUCTION

Burnout is increasingly being recognized globally as a significant concern, affecting the physical and mental well-being of healthcare workers (HCWs). During the current COVID-19 pandemic, closing international and state borders, strict city and area wise lockdown has affected HCWs and their families, causing excessive adverse psychological effects.

Burnout, a state of "emotional exhaustion" among professionals, was first described in the mid-1970s by Freudenberger and Maslach. Burnout is defined as a state of physical, emotional, and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding. It is a multidimensional syndrome comprising emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment.[1–3]

Clinical factors (contact with affected patients, forced redeployment to look after affected patients, training perceived to be inadequate), personal factors (fear of quarantine, particularly in staff with children at home, and infected family member), and social factors (social stigma against hospital workers) seem to be particularly relevant in Indian healthcare scenario.[4] Burnout, apart from being personally harmful, can lead to suboptimal patient care.[5]

Medical/paramedical professionals are also prone to abuse various substances and develop substance-use

disorders. A high prevalence of nicotine dependence and the use of other substances such as alcohol, cannabis, and benzodiazepines has been observed. This may lead to depression.

The present study was aimed to evaluate burnout and depression in paramedical workers of a tertiary care hospital during COVID-19 pandemic.

METHODS

Paramedical health care workers at Sh. Lal Bahadur Shastri Medical College, Ner Chowk, Mandi (Himachal Pradesh) after their valid consent were assessed using online questionnaire containing self-administered questionnaire. This was a cross-sectional study conducted during 3-months between June 2021 and August 2021. Approval of college ethics committee was taken for this study.

Sample size

The study participants included nurses, lab technicians, radio technologists, operation theatre assistants working in SLBSGMCH Mandi at Nerchowk.

Inclusion criteria

Those paramedics who completed all responses and had worked ever or were working in covid ward were included in this study.

Exclusion criteria

The participants who did not complete all responses and those who were never on covid duty were excluded from study.

Burnout self-test

It consists of 15 questions. The best answer is picked which best describes: not at all, rarely, sometimes, often, very often. The score ranges from 15 to 75. The maximum score represents higher risk of burnout.

Zung self-rating depression scale

The Zung Self-Rating Depression Scale was designed by W.W. Zung to assess the level of depression for patients diagnosed with depressive disorder.[6] The Zung Self-Rating Depression Scale is a short-self-administered survey to quantify the depressed status of a patient. There are 20 items on the scale that rate the four common characteristics of depression: the pervasive effect, the physiological equivalents, other disturbances, and psychomotor activities.

There are ten positively worded and ten negatively worded questions. Each question is scored on a scale of 1-4 (a little of the time, some of the time, good part of the time, most of the time).

The scores range from 25-100: 25-49 normal range, 50-59 mildly depressed, 60-69 moderately depressed, 70 and above severely depressed.

The state anxiety inventory (SAI)[7]

The SAI has 40 items, 20 items allocated to each of the S-Anxiety and T-Anxiety subscales. Responses for the S-Anxiety scale assess intensity of current feelings "at this moment": not at all, somewhat, moderately so, and very much so. Responses for the T-Anxiety scale assess frequency of feelings "in general": almost never, sometimes, often and almost always. Range of scores for each subtest is 20–80, the higher score indicating greater anxiety. A cut point of 39–40 has been suggested to detect clinically significant symptoms for the S-Anxiety scale.

Statistical analysis

Data were recorded into Microsoft Excel 2019 and exported into Statistical package for social sciences (SPSS) 21.0 (IBM, USA) for statistical analysis. Categorical variables were expressed as frequency and percentages.

RESULTS

Baseline characteristics

A total of 77 responses were received during the study period. 50.6% aged between 26-30 years. 93.5% were females. 59.7% were from joint family. 85.7% were staff nurses. 62.3% belonged to rural areas (Table 1).

Table 1: Baseline characteristics.

Characteristics	Frequency	Percentage
Age (years)		
21-25	14	18.2
26-30	39	50.6
31-35	14	18.2
36-40	7	9.1
>40	3	3.9
Sex		

Continued.

Characteristics	Frequency	Percentage
Male	5	6.5
Female	72	93.5
Family pattern		
Joint	46	59.7
Nuclear	29	37.7
Both	2	2.6
Job-Profile		
Lab technician	7	9.1
Operation theatre attendant	4	5.2
Staff nurse	66	85.7
Residence status		
Rural	48	62.3
Urban	24	31.2
Semi urban	1	1.3
Both	4	5.2

Table 2: Burnout self-test.

Score	Interpretation	Frequency	%
15-18	No sign of burnout here.	3	3.9
19-32	Little sign of burnout here, unless some factors are particularly severe	31	40.3
34-49	Be careful – you may be at risk of burnout, particularly if several scores are high.	35	45.5
50-59	You are at severe risk of burnout – do something about this urgently.	6	7.8
60-75	You are at very severe risk of burnout – do something about this urgently	2	2.6

Burnout self-test

In this study, only 2.6% had at very severe risk of burnout and 7.8% were at severe risk of burnout while 3.9% had no signs of burnout (Table 2).

Zung self-rating depression scale

Table 3 shows that approximately 80% of the patients had no depression. While 19.5% had mild to severe depression.

The state anxiety inventory (SAI)

In this study, only eight out of 77 subjects had clinically significant symptoms of anxiety (Figure 1).

Two patients were having comorbid illnesses in form of hypertension and T2DM each.

Table 3: Zung self-rating depression Scale.

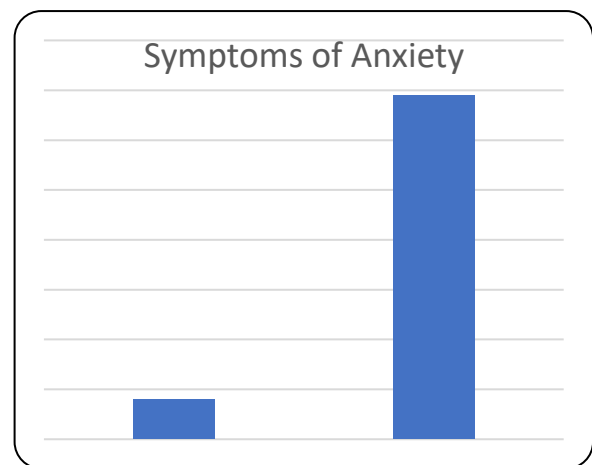| Interpretation	Frequency	Percentage
Normal	62	80.5
Mildly depressed	12	15.6
Moderately depressed	1	1.3
Severely depressed	2	2.6

Figure 1: Distribution of presence of anxiety on the basis of STAI.

DISCUSSION

During the viral epidemics, the mental health of HCWs confronts serious challenges.[8] HCWs face the death of their colleagues and threats to their lives. Moreover, the fear of becoming infected, the absence of an effective social support system, and the high workload all increase mental disorders.[9] However, few studies have addressed the psychiatric morbidity and mental health problems of

HCWs during the SARS-CoV-2 pandemic. Based on data retrieved from included studies, a substantial proportion of the analyzed sample showed degrees of psychological symptoms.

In our study, 95.1% had burnout, 20% had depression, and 10.4% had anxiety. A study found that 89% of health care workers during this outbreak reported psychological disorders.[10] Also, in another study assessed the psychological impact of SARS CoV2, the prevalence of anxiety and worries, depression, somatic symptoms and sleep problems in HCWs were 77.4%, 74.2%, 69.0% and 52.3% respectively.[11] Tam et al using the GHQ-12 questionnaire, found that 57% of medical staff suffered from psychological distress due to SARS outbreak. Similarly, in initial stages of the MERS outbreak, HCWs showed higher distress when measured by the impact of event scale-revised (IES-R).[12,13]

HCWs as the frontiers in any outbreaks, suffer from mental distress during and even years after epidemics. The number of COVID-19 patients is increased dramatically during the study period. This lead to a heavier workload in life-threatening situations disturbing the psychological health of hospitals workforces. Given the high transmission rate of the virus and the lack of any vaccine or medicine, infection control is a serious challenge. High morbidity and mortality of SARS-CoV-2 can aggravate the risk perception in HCWs.

Limitations of the study

Sample size was small as not all the paramedics in the medical college were put on COVID duty due issues like pregnancy, lactation and comorbid illness.

CONCLUSION

A considerable percentage of HCWs experienced depression and anxiety and were at risk of burn out.

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