

Psychological impact of Covid-19 on women health professionals

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Abstract

Background: The World Health Organization (WHO) in January 2020 declared outbreak of novel coronavirus disease, COVID-19, an international public health emergency. The suddenness of this calamity with no end in sight caused a great deal of stress, anxiety, and depression throughout the world.

Aim: The aim of this study was to assess the psychological impact during the developing COVID-19 situation among women health professionals.

Materials and methods: This was an observation-based cross-sectional study conducted during for a total of 3 months duration between August and October 2020. A structured questionnaire to assess the psychological impact was sent via the (email) electronic mail system to a target population of around 350 women.

Results: Mean \pm SD values for age were found to be 39 ± 8 years. Insomnia, stress, and anxiety were seen in a majority of the respondents.

Conclusion: The present study has shown severe psychological impact associated with the pandemic and the major factors associated.

Introduction

The COVID-19 disease was declared a pandemic by the World Health Organization in March 2020. Frontline workers, especially healthcare professionals have suffered from psychological side-effects such as depression, insomnia, anxiety, and stress in the wake of this calamity. These may be attributed to extremely long working hours, increased workload, information bombardment on social media, and high rates of infection among the handling staff. There is a need to address this impact even as we prepare to enter the second year of living with this disease.

There is evidence that gender has a role to play in response to stress [1]. Each gender has a different psychological framework, and it is important to explore the impact of a formidable threat such as the Covid-19 pandemic in each gender. The impact of the pandemic on women health professionals due to changed work and home dynamics is not yet well known. This survey aims to study the mental health burden of women healthcare workers, which can help formulate preventive and supportive measure by policy makers to alleviate the same.

Methods

This observational cross-section study was conducted over a three-month period from August to October. For this purpose, a structured questionnaire was distributed via electronic mail system to 400 women health professionals across the country of which 343 responded and formed part of this analysis. The questionnaire comprised of following study variables- Age-range, categorized into- (i) between 20 and 30 years, (ii) between 30 and 40 years, (iii) between 40 and 50 years, (iv) between 50 and 60 years and (v) above 60 years; speciality; presence of stress; Anxiety; Insomnia; and factors contributing to the above. We also tried to learn about any available

support systems, their coping measures and if pandemic came up with any positives as well. The questionnaire concluded with suggestions to authorities that may help the mental health of the healthcare workers. The study was conducted in compliance with the protocol; the respondents provided their informed consent before taking the survey. Participation was on a voluntary basis, and there were no incentives. Data protection and anonymity were guaranteed. The collected data was analysed by Microsoft Excel and SPSS version 26.0 (SPSS Inc., Illinois, USA).

Results

The survey included 343 women health professionals across the country. The mean age was 39 ± 8 years. The age distribution was as follows (Table 1). The distribution speciality-wise was as described in the table below (Table 2). The number of married women was 289. Only 27 women gave history of prior mental health disorder.

Ninety nine percent of the women professionals felt that the Covid-19 pandemic had impacted their life in some way of the other (Figure 1). Fifty percent confessed that their life was worse compared to pre-Covid times due to increased workload at both home and at work front. This was compounded by an inability to interact with peers due to social isolation or pursue recreational activities. The respondents miss having no fear at work, availability of house-helpers, and better

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Key words: anxiety, depression, stress, insomnia, psychological impact, women health professionals, survey

Received: February 01, 2021; **Accepted:** February 15, 2021; **Published:** February 19, 2021

Table 1. The age distribution of respondents.

Age Group (years)	Number of Participants
21-30	38
31-40	210
41-50	47
51-60	36
61-70	10
71-80	2
TOTAL	343

Table 2. The distribution of respondents speciality-wise.

Speciality	Number of Participants
General Practitioner	65
Psychiatry	46
Physician	41
OBG	36
Para-clinical Faculty	27
Anaesthesia	21
Super-specialist	20
Ophthalmologist	16
Nursing Officer	13
Surgeon	12
Paediatrics	10
Physiotherapist	9
Dental	7
ENT	7
Radiology	6
Dermatology	5
Pre-clinical Faculty	2

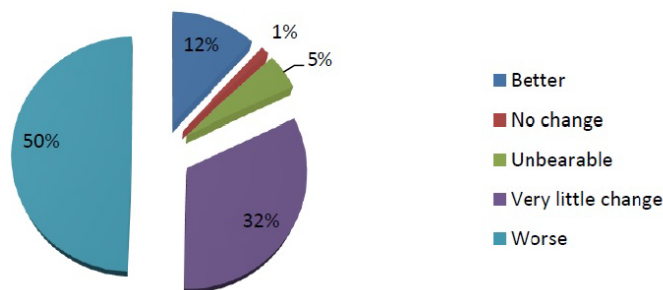


Figure 1. Quality of life with COVID – responses.

personal space prior to the pandemic as the children and spouse went for their school and work.

Insomnia was seen in 55% of the respondents with complaints of both increased sleep latency and frequent awakenings (Figure 2).

Only 11% of the women did not complain of any stress (Figure 3). Thirty-seven percent complained of feeling stressed at all times due to the fear that a family member might catch Covid-19, financial insecurity, social stigma related to the job, or having to see children idling away at home. Less than 1% of the respondents complained of marital disharmony.

Eighty-seven percent of the respondents complained of anxiety (Figure 4). Inability to cope with kids’ online academics, information bombardment with Covid-19 statistics, a feeling of uncertainty of the future or sense of impending doom were the most common causes of anxiety. Participants also complained of inability to meet their parents or visit family due to the fear of exposing them to infection.

While a majority of the women complained of mild to moderate stress on a scale of 0 to 5 (Figure 5), depression was absent or mild in most of the respondents (Figure 6) (0 - No change, 1-2 - Mild, 3-4 - Moderate, 5 – Severely difficult and functionally disabling). Most of the respondents lamented the inability to plan a much-awaited vacation; some also complained that they were unable to plan family or apply for change of workplace.

The change in dynamics of living associated with the pandemic also brought along some positives. The respondents appreciated the improved hygiene practices in the society, having more family-time, and that the environment became healthier with less pollution. At least fifty percent of the married women claimed to have their spouse as their biggest support system to help cope with the stress and pressure at work. Most of the women were able to make time for yoga, meditation, an exercise routine, or a hobby to allay their anxiety and fears.

The solutions suggested by the participants to help them beat the psychological impact of the pandemic include the provisions of health insurance or a financial bonus by the policy makers, a crèche facility

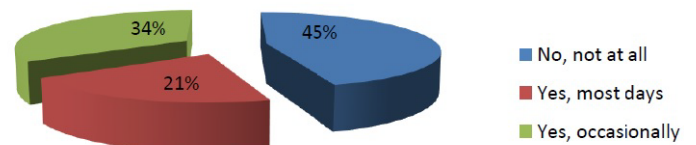


Figure 2. Respondents complaining of insomnia.

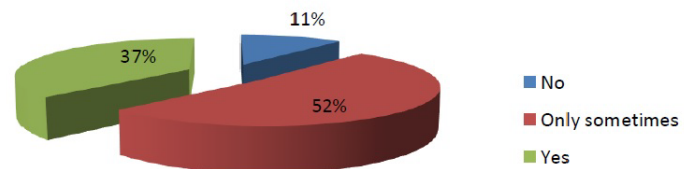


Figure 3. Respondents complaining of stress.

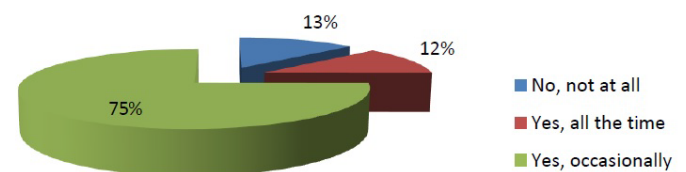


Figure 4. Respondents complaining of anxiety.

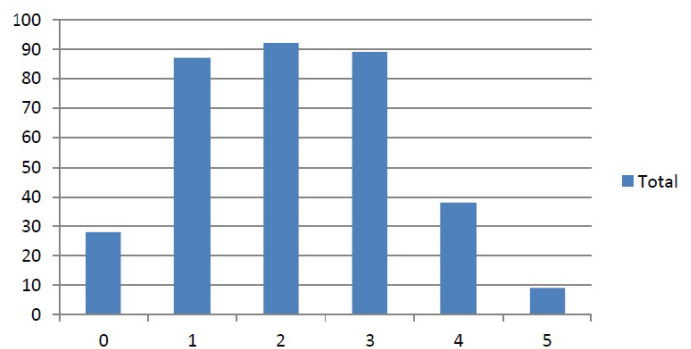


Figure 5. Severity of Stress on a scale of 0-5.

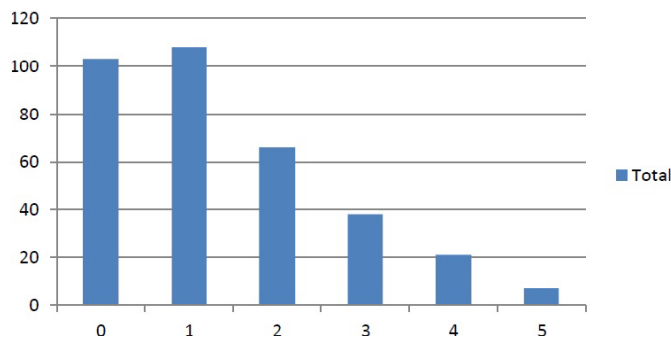


Figure 6. Severity of Depression on a scale of 0-5.

and regular psychological counselling at workplace. Most benefitted from staggered duty rosters which provided both physical and mental relief.

Discussion

This cross-sectional survey enrolled 343 respondents and revealed a high prevalence of mental health symptoms among women health care workers treating patients with COVID-19. Most participants were aged 31 to 40 years, were married, and worked as general practitioners.

In a study from Singapore, from among 470 participants, sixty-eight (14.5%) participants screened positive for anxiety, 42 (8.9%) for depression, 31 (6.6%) for stress, and 36 (7.7%) for clinical concern of PTSD [2]. In another study done among both the healthcare and non-healthcare working professionals in India, anxiety was seen in 55.65%, 48.54%, 52.34%, and 56% of physicians, nursing staff, technicians, and non-healthcare study population while depression was evidently reported from 32.1%, 53.72%, 42.7%, and 35% and insomnia was found to afflict 47%, 38.2%, 39.4%, and 43% of the above-mentioned categories. On analysing the psychological parameters of depression, insomnia, and anxiety between healthcare and non-healthcare professional workers, significance was obtained ($P = 0.05, 0.03, \text{ and } 0.02$, respectively) [3]. A survey conducted among Romanian medical residents obtained an average burnout for medical residents of 76%, about two months after the outbreak of the pandemic. Burnout was considered as fulfilling one of the three criteria: an elevated level of emotional exhaustion (≥ 27), and/or a high score for depersonalization (≥ 10), and/or a low personal accomplishment score (≤ 33) [4]. Unlike our study, the above studies did not assess in particular the prevalence of impact in women professionals.

A study of 1257 health care workers in 34 hospitals in China indicated that being a woman was associated with experiencing severe depression, anxiety, and distress (e.g., severe depression among women: OR, 1.94; 95% CI, 1.26-2.98; $P=0.003$) [5]. In a study of the psychological impact on hospital workers in South Korea, most of the participants were women and nurses, who accounted for the largest proportion of the hospital's workforce. They had high Impact of Event Scale-Revised scores. Their risk of contracting the disease was high because they were intensively involved in providing care to patients [6]. A study from Oman accrued 1139 HCWs from different parts of the country out of which 911 (80%) were female. The study showed that 368 (32.3%), 388 (34.1%), 271 (23.8%) and 211 (18.5%) respondents reported symptoms of depression, anxiety, stress and insomnia, respectively, while working during the pandemic period [7]. A study by Gupta et al. [8] also suggested that male HCWs had significantly minimal anxiety scores (219/368, 59.5%) than female HCWs. Moreover,

there was a significant association between the female gender as well as inadequate availability of PPE and higher anxiety levels ($P=.01$ for both). A study from Spain revealed that females who are working in the frontline, with the uncertainty of a possible infection, the perception of inadequate protection measures and having experienced the death of a close person by Covid-19, showed a heightened risk of experiencing psychological distress [9]. A study by Conti et al from Italy also reiterated that female care workers experienced higher levels of anxiety and somatization symptoms, and stated they needed psychological care more than men ($p < .001$) [10].

The reasons for the high prevalence of mental health symptoms amongst women health professionals include social isolation, increase in burden on the domestic field and increase in fear of disease exposure at work. While most women had the support of their spouses and were able to make more time for their families, it is proposed that psychological counselling and psychiatric care should be provided to women health professionals to address exhaustion and prevent burn-out at the work-front.

Limitations

Our study had several limitations. The responses may be judged as inauthentic the questionnaire' was self-reported. There are no comparative studies from pre-COVID times which makes it difficult to ascertain if other factors are accountable for the mental health of women health professionals. Our study lacks a longitudinal follow-up. A long-term follow-up to assess the psychological implications with a decline in the number of cases, lifting of travel restrictions and availability of vaccination are worth further investigation.

Conclusion

In conclusion, this survey is unique as it specifically targets a very vulnerable population – the women health professionals facing the heat of this pandemic. It reports high rates of symptoms of anxiety, insomnia, and stress amongst women health-care workers as an aftermath of this pandemic. It is imperative to protect the health of all front-line workers, especially women, to tackle this pandemic successfully on all fronts. Proactive measures should be undertaken by hospital authorities and government policymakers to promote mental well-being of women health professionals, to secure them a healthy work-life balance and a better quality of life. They form the backbone of our society.

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