A Cross Sectional Study on Anxiety Disorders amongst Young Doctors during the COVID 19 Pandemic

Sridevi NH[1], Darshan Y Jotibannad[2]

[1]Assistant Professor, Department of Community Medicine, Shri Atal Bihari Vajpayee Medical College & Research Institute, Bengaluru, Karnataka
[2]Assistant Professor, Department of Psychiatry, Shri Atal Bihari Vajpayee Medical College & Research Institute, Bengaluru, Karnataka

ABSTRACT

Background: Empirical evidence suggests that stress related to a period of tribulation tends to weaken the system, further increasing the danger of diseases. Given this fact, additionally to having a high risk of contracting COVID-19, partly attributed to suboptimal protection, HCWs are susceptible to poor psychological state outcomes.

Objective: This study aims to assess and compare demographic and psychological factors amongst frontline healthcare workers like young doctors

Method: A cross sectional online survey was conducted by sharing Zung self- administered anxiety questionnaire using Google form. The consent was obtained from 100 participants and snowball sampling method was followed in the study. The Chi square and p value was also calculated to ascertain any significance level and association between different variables.

Results: Out of 100 participants, 13(13.5%) were found to have anxiety disorder. Males were found to have higher anxiety level than females.

Conclusion: The early identification of the psychological distress and a timely intervention will improve the quality of life of doctors and also reduce the severity of the psychological sequelae.

Key words: covid19, young doctors, anxiety

INTRODUCTION

A series of pneumonia cases were identified with presumptive viral origin in Wuhan, Hubei, China in December 2019.[1] The virus was first designated as the novel coronavirus (2019-nCoV), and after global agreement, the virus was renamed as Corona Virus Disease 2019 (COVID-19).[2]

The available evidence suggests that stress at work tends to weaken the system, further increasing the danger of diseases among health care workers. Given this fact, additionally to having a high risk of contracting COVID-19, partly attributed to suboptimal protection, HCWs are susceptible to poor psychological state outcomes. Therefore, early detection among HCWs has the potential to combat such issues, thereby helping to scale back the less desirable trend of getting compromised HCWs during an pandemic state.[3]

Immediate interventions are essential so as to reinforce psychological resilience and strengthen the healthcare systems' capacity. Clear communication, limitation of shift hours, provision of rest areas also as broad access and detailed rules on the utilization and management of protective equipment and specialized training on handling COVID-19 patients

could reduce anxiety coming from the perceived un-familiarity and uncontrollability of the hazards involved. Providing timely and appropriately tailored psychological state support through hotline teams, media or multidisciplinary teams, including psychological state professionals is additionally important.[4]

Thus, this study assessed and compared the demographic and psychological factors of frontline HCWs that are needed to preserve the mental health and resilience of HCWs.

METHOD

A Cross Sectional study was conducted online involving 100 participants. The online Google forms were created and mailed to the participants after obtaining informed consent from them. The survey was conducted from December 2020 to March 2021 and snowball sampling technique was used .The data were entered and analysed using SPSS software. Frequency and percentage were calculated and chi square test was applied for level of significance. P value less than 0.05 was considered significant. Interns those who were working in covid 19 dedicated hospitals exclusively and gave informed consent were included in the study.

Those who were not willing to participate in the study and those who had pre-existing psychiatric disorders, medical co-morbidities like epilepsy, hypo or hyperthyroidism, diabetes, bronchial asthma, ischemic heart disease etc were excluded from the study.

A semi-structured, pretested questionnaire was used to collect data. The questionnaire contained an informed consent, socio demographic details like age, gender, past history of medical illness and psychiatric disorders. The psychometric tool, Zung Self Rating Anxiety Scale[5] was used to assess anxiety and its severity level. It was designed by William WK Zung to quantify anxiety. It is a self reporting questionnaire comprising 20 questions. Each question has four options .The participant must mark the choice that closely resemble the symptoms they experience. The scoring of the choice range from 1 to 4.The lowest score being 20 and highest is that the 80 score. A score of 20 to 44 is taken into account in the normal range, 45 to 59 as mild to moderate severity, and 60 to 74 as moderate to severe grade and above 75 the extreme anxiety level.

RESULTS

This study included 100 interns working at Bowring and Lady Curzon hospitals Bengaluru. The gender distribution of the interns is as shown in table 1.

It is observed that males outnumbered the females. The mean age of study participants is 22.

In this study out of 100 interns studied for anxiety 13 of them showed mild anxiety.

Table 1: Background characteristics of the participants in the study

Background characteristics	Frequency (%)
Gender	
Male	68 (68)
Female	32 (32)
Residence	
Hostel	76 (76)
Home	24 (24)
History of COVID 19 infection	
Yes	12 (12)
No	88 (88)
Total	100

Table 2: Gender distribution of participants identified to have anxiety disorder

Gender	Freq	No anxiety	Anxiety disorder	%
Male	68	58	10	12
Female	32	29	03	1.5
Total	100	87	13	13.5

P value: 0.465

The gender distribution of the participants identified to have anxiety disorder is as shown in table 2. It can be observed that males had more anxiety issues than that of females.

DISCUSSION

There are few studies done to explore the incidence of anxiety disorders among the health care workers or intern doctors' population online during the COVID-19 pandemic. Our study is an attempt to understanding about the occurrence of the anxiety disorder in the aforesaid group.

A cross sectional study conducted by Muna Alshekaili et al[3] using Depression Anxiety Stress Scale(DASS-21) showed that HCWs in the frontline group were 1.5 times more likely to report anxiety (OR=1.557, p=0.004), stress (OR=1.506, p=0.016) and insomnia (OR=1.586, p=0.013) as compared with those in the non- frontline group. Similar findings were seen in this study which also showed mild anxiety among 13 interns.

A multinational, multicentre study on Healthcare workers from 5 major hospitals, involved in the care for COVID-19 patients, in Singapore and India was conducted by Nicholas W S Chew et al[6] using Depression Anxiety Stress Scale(DASS-21) and Impact Of Events Scale –Revised(IES-R). The study showed that out of the 906 healthcare workers who participated in the survey, 8.7% had moderate to extremely-severe anxiety. In contrast this study revealed 13(13.5) mild anxiety and no moderate to severe anxiety.

Study done using Impact Of Events Scale –Revised (IES-R) by Mustafa Kürşat Şahin et al[7] to evaluate the prevalence of depression, anxiety, distress, and insomnia and related factors in healthcare workers

during the COVID-19 pandemic in Turkey revealed that 60.2% exhibited anxiety. We conducted an online cross- sectional study in which out of 100 participants 13 reported varying degrees of anxiety disorder and males outnumbered females.

A Narrative Review by Gabriele Giorgi et al8, on COVID-19-Related Mental Health Effects in the Workplace, revealed Mental issues related to the health emergency, such as anxiety, depression, post-traumatic stress disorder (PTSD), and sleep disorders are more likely to affect healthcare workers, especially those on the frontline, migrant workers, and workers in contact with the public. Similar finding were seen in our study.

A Scoping Review by Jacob Shreffler on Impact of COVID-19 on Healthcare Worker Wellness revealed stress, anxiety, and depressive symptoms in HCWs as a result of COVID-19).[9] our study also revealed mild anxiety in health care workers ie 13.5 percent.

In two studies administered separately , one by Wang et al [10] (2020) in China and second, a metanalysis by Sofia et al (2020) in their study reported 28.8% and 23.2% population respectively to possess experienced anxiety related disorders and females being more sufferers than males, which was in contrast to our study where males outnumbered females in experiencing more anxiety.

A study by Fei Dong et al[11], identified 25 articles comprising a total of 30,841 completed questionnaires and 22 studies for meta-analysis. The scale used was SCL-90 scale. The prevalence of anxiety, depression, and stress disorders was 34.4% (29.5-39.4%), 31.1% (24.5-37.7%), and 29.1% (24.3-33.8%) for HWs. Our sample size comprising 100 participants, found 13 (13.5%) people to experience anxiety disorder which is quite a significant number.

Zhou Zhu et al[12], conducted single-center, cross-sectional survey of HWs via online questionnaires using GAD -7 scale , 29.8%, 13.5% and 24.1% of Healthcare Workers reported stress, depression and anxiety symptoms. This study also showed 13.5 percent anxiety among subjects.

LIMITATIONS

This study has some limitations. Anxiety was evaluated by only online questionnaires, not with a psychiatric interview. As we couldn't meet face to face with HCWs, detailed information about psychiatric illness history couldn't be obtained. This study is a cross-sectional study. Longitudinal research is required for the prevalence of those mental states within the COVID-19 pandemic process

CONCLUSIONS

This study concludes that anxiety issues among doctors are to be given importance and regular recreational activities can be taken up by organization to avoid work related stress.

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