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ABSTRACT

The COVID-19 pandemic affect healthcare professionals around the globe. Psychological effects in countries like Afghanistan are higher as compare to other countries where such illnesses are still stigmatized and untreated. Therefore, this research is conducted to examine the prevalence and associated features of anxiety and depression in workers of Nangarhar public health hospital during COVID-19 outbreak. For accomplishment of research objective, a descriptive, cross-sectional research of n=359 healthcare workers were conducted from September 15 to December 15, 2020 in Nangarhar public health hospital. Anxiety and depression were assessed using the General Anxiety Disorder-7 and Patient Health Questionnaire-9 instruments, respectively. The Chi-squared test was used to evaluate the association between demographic variables age, gender, education, designation, job experience, and COVID-19 exposure with anxiety and depression. The outcomes indicated that doctors were more likely than other health care professionals to suffer from anxiety and depression; 61.5% severe anxiety and 76.9% severe depression with p value 0.000. Furthermore, depression and mild to moderate anxiety were found high in females whereas severe anxiety and depression was found high in males: 69.2% of sever anxiety and 76.9% of severe depression with p value 0.000. In sum doctors who deal with patients with COVID-19 are more likely to experience significant anxiety and depression. Early detection and supportive treatment are critical to ensuring that clinical and paramedical personnel allocated to patient care have access to physical and mental health services.

KEYWORDS: Anxiety, COVID-19, Depression; Health Facilitating Workers

1. INTRODUCTION

Healthcare workers that care for COVID-19 patients have been dubbed "Healthcare Heroes" all around the world¹. While the phrase was intended to honor healthcare professionals' efforts, it inadvertently instills expectations of constant sacrifice and strength. Cox asserts in her research on the media's emphasis on healthcare heroes that the word "hero" is harmful because it fails to recognize the boundaries of responsibility and the necessity of reciprocity, which may have a negative impact. Health-care employees' psychological well-being is negatively impacted¹. Healthcare professionals have long been known to suffer from a variety of mental illnesses as a consequence of the psychological and emotional strain of continuous exposure to human pain, suffering, and



death, even before the COVID-19 pandemic. Compassion Fatigue is generally described as a bodily, psychological, and social condition of weariness and dysfunction caused by extended exposure to others' suffering. Compassion stress and all it entails It's related to secondary traumatic stress and burnout, and it leads to a lot of sick days, psychological injury claims, job turnover, and a bad effect on the workplace productivity². The lack of control over admissions, out-patient visits, procedures, infection control measures and the false notion of safety precautions, as well as poor communication, a lack of preparedness and emotional support, inadequate personal protective equipment and perceived fatality are all factors that contribute to burnout in medical professionals, aside from the physically long working hours³. For example, in a nation like Afghanistan, psychological disorders are common due to a variety of factors such as a lack of educational opportunities, financial constraints, securities issues, frequent severe social difficulties, and a lack of mental health literacy⁴.

In 2015, a research performed on physicians, dentists, and nurses revealed that their mental well-being, nutrition, and exercise habits did not meet the criterion, making them more susceptible to additional illnesses in the future⁵. It was because of the suddenness and intensity of the COVID-19 outbreak that healthcare professionals all around the globe were impacted in one way or another. Beyond the viral infection itself, social media paranoia, hoarding, and stigmatization all contributed to the escalation of anxiety and depression, which resulted in the term corona phobia being widely used⁶. Another research conducted in China found that the total prevalence of anxiety was 12.5%, with the majority of cases being mild⁷. When tested for moderate to severe depression, 8.7 percent tested positive for moderate to extremely severe anxiety, 2.2 percent tested positive for moderate to extremely severe stress, and 3.8 percent tested positive for moderate to severe psychological distress in a multicenter study in Pakistan, Singapore, and India. The most often reported symptom was headache (32.3 percent of all reports)⁸. Anxiety and depression among healthcare professionals in Nangarhar public health hospital, Afghanistan were the study's objectives as did determining the effect of COVID -19 on these individuals.

One who provides care and services to the ill and suffering either directly as physicians and nurses or indirectly as aides, assistants, laboratory technicians, or even medical waste handlers is referred to as a healthcare professional. Accordingly, the purpose of this research was to determine the associations between anxiety and depression in healthcare professionals working in a Nangarhar public health hospital during the COVID -19 pandemic.

2. RESEARCH METHODOLOGY

Research Design: A descriptive cross-sectional research was carried out at Nangarhar public health hospital between the September 15 to December 15, 2020.

Sampling Technique and Sample Size: The sampling was done through the use of a simple random technique. An overall total of 500 individuals were contacted in order to achieve the objective of the research, however 463 participants shown interest to fill the form but the forms were completed and returned by 359 participants only. These 359 volunteers from the health-care sector comprised physicians, nurses, laboratory technicians and receptionists as well as housekeeping and pharmacists, among other professions.

Data Collection: Primary data collection methodology was used in this research. Therefore, the data was collected through a self-administered questionnaire contained the validated instruments of the Generalized Anxiety Disorder score for anxiety and the Patient Health Questionnaire score for depression. The authors provided a questionnaire, and those who participated were asked to return the survey after it had been completed. In addition to the validated questionnaire, participants were questioned about their views of hospital readiness, which was collected separately.

Statistical Software: SPSS 24 version was used to conduct the statistical analysis. The data was presented in the form of frequencies and percentages. The Chi-squared test was used to evaluate the Depression and Anxiety Scale, and a p-value of less than 0.05 was deemed statistically significant.



3. RESEARCH FINDINGS

The outcomes indicated that the 218 (61.5 percent) participants were between the ages of 19 and 29 years old, with majority of male. One hundred and forty-one (38.5 percent) of the participants were between the ages of 30 and 45 as shown in Table 1.

Table 1: Participants Age

Age	Number	Percentage
19-29	218	61.5%
30-45	141	38.5%
Total	359	100%

There were 192 men (53.5 percent) and 167 females (46.5 percent) in the group as shown in Table 2.

Table 2: Gender Ratio

Gender	Number	Percentage
Male	192	53.5%
Female	167	46.5%
Total	359	100%

The outcomes indicated that there are 102 doctors (28.1 percent) and 138 nurses (38 percent) responded to the survey, while 123 others respond (33.9 percent) “among the other health-care professionals were those in infection control, laboratory work, radiology and nuclear medicine, pharmacy work, operation theater work, rehabilitation sciences, outpatient clinic work, management, and housekeeping” as shown in Table 3.

Table 3: Designation of Participants

Designation	Number	Percentage
Doctors	102	28.5%
Nurses	138	38.5%
Others	119	33%
Total	359	100%

In terms of educational qualification, 97 (27%) of the participants were Master, 100 (28%) were bachelor, and 162 (45%) had a high school or lower degree of education as shown in Table 4.

Table 4: Educational of Participants

Education	Number	Percentage
High School	162	45%
Bachelor	100	28%
Master	97	27%
Total	359	100%

Work experience varied from a few months to almost ten years. Because 122 (34 percent) of the participants had less than two years of experience. 156 participants (43.5 percent) had 2 to 10 years of job experience, whereas 81 participants (23%) had more than 10 years of work experience as shown in Table 5.

Table 5: Experience of Participants

Work Experience	Number	Percentage
less than 2 years	122	34%
2 to 10 years	156	43.5%
more than 10 years	81	23%
Total	359	100%

256 (71%) of the participants were married, 97 (27%) were un-married, whereas 6 (2%) were divorced or widowed as shown in Table 6.

Table 6: Marital Status

Marital Status	Number	Percentage
Married	256	71%
Un-Married	97	27%
Other	6	2%
Total	359	100%

According to 135 (38%) participants, friends and family members are avoiding because of their COVID-19 exposure. The majority of the participants, 187 (52%), had been exposed to COVID-19 patients, and 37 (10%) of the participants had been diagnosed with COVID-19 as shown in Table 7.

Table 7: COVID Exposure

COVID-19 Exposure	Number	Percentage
Avoided by family	135	38%
Exposed to COVID-19 patient	187	52%
COVID diagnosed Patient	37	10%
Total	359	100%

Anxiety Score GAD-7 of Participants	Number	Percentage
Mild Anxiety	85	24%
Moderate Anxiety	53	15%
Severe Anxiety	26	7%
No Anxiety	195	54%
Total	359	100%

GAD: Generalized Anxiety Disorder

Depression score	Number	Percentage
Minimal Depression	96	26.4%
Mild Depression	85	23.4%
Moderate Depression	44	12.1%
Moderately Severe	29	8%
Severe Depression	13	3.6%
No Depression	85	23.5%
Total	359	100%

Chi-square analysis indicated the association between GAD and designation was highly significant with p value 0.000. The result documents in Figure 1 and Figure 2 that anxiety and depression were highly severe among doctors: 61.5% severe anxiety and 76.9% severe depression. In addition, the relationship between gender and depression and anxiety were highly significant ($p=0.000$). Furthermore, depression and mild to moderate anxiety were reported greater in females whereas severe anxiety and depression was reported greater in males: 69.2% of severe anxiety and 76.9% of severe depression.

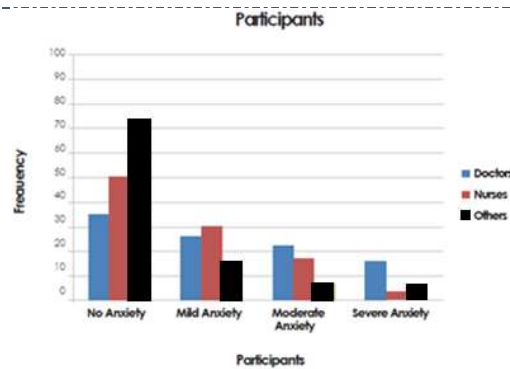


Figure 1: Severity of anxiety amongst doctors, nurses and others

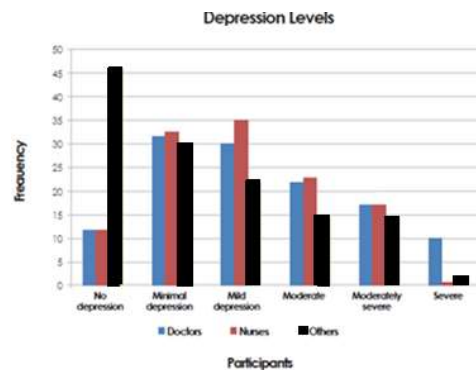


Figure 2: Severity of depression in doctors, nurses and others

4. DISCUSSION

Clinical staffs, according to our study, are exposed to a high degree of physical and emotional stress as a result of their work. Studies on COVID-19 in Afghanistan found a significant positive association between anxiety and depression ratings among doctors, and the addition of a worldwide pandemic has exacerbated the problem⁹. As anticipated, healthcare professionals who had a lot of direct contact with verified COVID-19 patients and were actively engaged in decision-making had a much more severe psychological effect than those who had pre-existing medical problems¹⁰.

Female healthcare professionals, on the other hand, had substantially lower levels of anxiety and depression than their male colleagues, according to our research. Previous research has shown that female healthcare workers had greater incidence of emotional symptoms¹¹, which contradicts our finding. Similarly, our findings show that physicians had a substantially greater prevalence of anxiety and depression ($p=0.000$) than nurses and other allied health professionals. This result contrasts with a recent research on the mental health of emergency department (ER) workers in Pakistan, India, Bangladesh during the corona pandemic, which found that being a nurse was linked to a greater incidence of post-traumatic stress disorder^{12 & 13}.

The greater psychological effect of COVID-19 on physicians may be due to the increased amount of responsibility on their shoulders, but another explanation might be because doctors have more freedom to express themselves. Younger paramedical personnel have greater freedom to express their opinions¹³. Despite the survey's anonymity, several employees were concerned that their unhappiness with hospital conditions would reflect negatively on them. More research can be done to eliminate any confounding variables and improve the answers' authenticity. The greater psychological effect of COVID-19 on physicians may be due to the increased amount of responsibility





on their shoulders, but another explanation might be because doctors are able to communicate their feelings. Young paramedical staff have greater freedom in their views. Despite the survey's anonymity, several employees were concerned that their unhappiness with hospital conditions would reflect negatively on their dedication to their jobs. More research is needed to eliminate any confounding variables and improve the answers' validity. More over a third of the people who took part in our study said this.

Because of COVID-19 exposure, their relatives and friends shunned the health workers of Nangarhar public health hospital. This may have a significant impact on a person's mental health, especially if they are under physical and emotional strain as a result of their work responsibilities. This stigma attached to COVID-19 clinical personnel has a significant negative impact on the mental health of healthcare workers worldwide, not just in Afghanistan. Over a quarter of respondents in a survey in the United States felt that medical personnel should be subjected to significant limitations on their liberties, such as being isolated from their communities and families¹⁴.

In sum, it is the hospital administration's responsibility to ensure the physical and emotional well-being of its employees, especially frontline healthcare professionals. Appropriate working hours with regular breaks and adequate personal protection equipment (PPE) would aid the health care workers of Nangarhar public health hospital in overcoming anxiety and depression, which were major contributors in our research.

5. RESEARCH CONCLUSION

Although healthcare professionals are required to put their lives in danger when caring for infectious patients, it is critical to recognize their mental health susceptibility. Psychological assessment is required for medical workers, especially in high-risk situations in Nangarhar public health hospital in addition to appreciation and acknowledgment. Healthy conversations regarding anxiety and depression should be promoted, and healthcare professionals should be given the greatest amount of assistance possible.

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