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Level of General Stress in Doctors Community in Pre and Post Covid-19 Scenario in Different Hospitals of Pakistan

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ABSTRACT

Objectives: To find out the level of stress among the doctor community before and during the COVID-19 pandemic in different public sector hospitals.

Study Design: Cross-sectional study.

Place and Duration of Study: Divisional Headquarters DHQ Teaching Hospital, Sahiwal Pakistan and two Public Sector Hospitals at Okara and Islamabad Pakistan, from Aug 2019 to Aug 2020.

Methodology: A total of 320 doctors in two Groups were included in the study. Group-1 included 197 doctors in pre-COVID-19 time i-e from Aug 2019 to Jan 2020, while Group-2 included 123 doctors working in the COVID-19 scenario. The stress was assessed according to responses on a structured questionnaire and patient health questionnaire (PHQ-9) scores.

Results: Three hundred and twenty doctors participated in the study, out of which 78(39.8%) doctors in the First Group and 49(40.4%) in Second Group developed depression during their duties. More female doctors participated in the study, most of whom were young doctors who were actively involved in COVID-19 patients.

Conclusion: There is no significant rise in stress among the doctors working in the COVID-19 situation in public sector hospitals of Pakistan.

Keywords: COVID-19, Coronavirus disease, Doctors, PHQ-9- patient health questionnaire, Stress.

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INTRODUCTION

Stress sometimes called burnt out, has been a persistent problem in professionally committed health care workers, especially doctors.[1] Emotional and physical problems affect the doctor community and have been studied at different levels and times. This is a natural phenomenon that people working in stressful circumstances and pressures can have these effects on their personality, and the same is the case with doctors and the health care community. As stress sufferers may have conceptual confusion, it can hinder decision-making and the response of the individuals, especially to the patient and their attendants in the case of the health care community. With the political, psychological and financial stresses, doctors were also thought to be more vulnerable to pandemic-related stress. Therefore, we tried to quantify the stress level in the doctor community of public sector hospitals in 2019. Fortunately, we had been studying the stress level in doctors of public and semipublic type hospitals from Jan–Dec 2019 and data was collected. Unfortunately, the COVID-19 pandemic hit Pakistan the next year, which provided us with the special opportunity to study the stress factors in the doctors during this pandemic era. The coronavirus disease 2019 (COVID-19) crisis put extra stress and pressure on doctors and health care delivery systems. The research shows that such pressures bring a great risk of psychosocial distress for doctors.[2] Pandemic anxiety, lack of organizational readiness, fear of infection, and professional commitment are major factors contributing to stress among doctors in the community.[3] In this regard, this is a unique study comparing the stress level in our doctor community before and after the COVID-19 epidemic in Pakistan. In addition, there was another natural aspect of depression due to lockdown measures, quarantine and social distancing during the outbreak,[4] in the general public, so this aspect of the scenario was also kept in mind.

The objective of the study was to find out the level of stress among the doctor community before and during the COVID-19 pandemic in public sector hospitals.

METHODOLOGY

This was a cross-sectional study carried out at the Department of Medicine, DHQ Teaching Hospital Sahiwal and two Public Sector Hospitals of Okara and

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Islamabad Pakistan, from August 2019 to August 2020. Ethical Review Board (IERB) permission was taken before starting the study. All the doctors of the three hospitals were included by consecutive sampling and were randomized with no gender discrimination, irrespective of their speciality and status. There was no compulsion to participate in the study.

Inclusion Criteria: Consultants, Postgraduate trainees, house officers and doctors of the general cadre were included in the study.

Exclusion Criteria: Nil

A total of 320 doctors of all age groups, including 197 doctors who were assessed in pre-COVID-19 time i-e 2019, were included in Group-I, while 123 doctors who were assessed in post-COVID-19 time were included in Group-II. They were given a proforma, Personal health questionnaire depression scale (PHQ-9), to fill it on their own time and will accordingly. The questionnaire comprised nine questions focused on assessing stress in general.

The subjects participating in the study were assured of the privacy and confi-dentiality of identity. The provision of personal protec-tive equipment PPE was considered, but no doctor complained about the non-availability of PPE. The stress was quantified from scores 0 to 3 in each column. In each of the nine diffe-rent sections (asses-sing PHQ -9 score). A score of 0-5 was considered normal, 6-10 mild depression, 10-20 moderate depression, while more than 20 were consi-dered severe depression.

The data obtained from those structured printed questionnaire forms were then analyzed using Statis-tical Package for Social Sciences (SPSS) version 23:00, and the results were compiled accordingly. Mean±SD was calculated for quantitative variables. Frequency and parentage were calculated for qualitative variables.

RESULT

A total of 320 doctors were given the forms to be filled. Out of which 197 doctors returned the filled proforma, while 117 did not return the questionnaires. Group-1 included 197 doctors, while Group-II inclu-ded 123 doctors. A total of 63% of doctors participated in the study, out of which 185(58%) were female and 135(42%) were male doctors. Senior doctors were 80(25%), while 236(74%) were junior doctors. Surpri-singly in Group-I average score (PHQ-9) was 7.03±0.33, while in Group-2, it was 6.89±1.32 (Table).

Table: Burn out in doctors in Pre and Post COVID(n=197)

Population Characteristic	Group-1 (Pre COVID)	Group-2 (Post COVID)
Total number of doctors (n=197)	n= 93	n= 104
Senior Doctors	21(22.5%)	30(28.8%)
Junior Doctors	72(77.4)	74(71.1)
Average score (PHQ-9 scale)	7.03±0.33	6.89±1.32
Total number of doctors falling in depression bracket	37 (39.8%)	42 (40.4%)
Total number of doctors falling in severe depression bracket	6 (6.5%)	2(1.9%)

Although doctors falling in the category of depression was higher in post-COVID-19 periods. The majority of doctors in Group-I (78, 39.8%) and the majority of doctors in Group-II (49, 40.4%) developed depression during their duties (Figure).

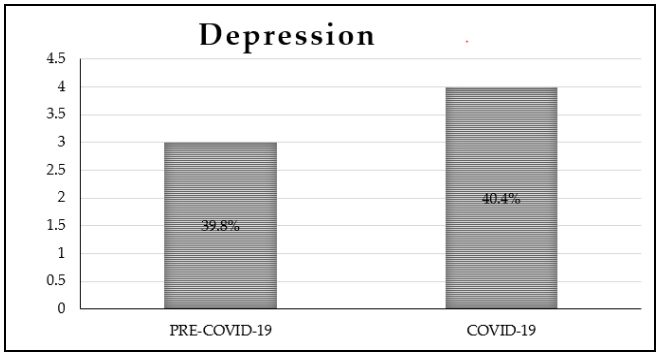

Figure: Percentage of total Doctors Falling into the Depression

DISCUSSION

As COVID-19 infection hit China in the second half of 2019 and later infected the whole world, there was a great rise of fear and panic among the masses. It was further alarming in the health care community as they were often more exposed to the viral illness as frontline warriors against the disease. COVID-19, also called coronavirus, can cause severe respiratory dis-tress syndrome by multiplying into human respiratory membrane cells.[4] Along with its high infectivity and fatality rates, the Corona Virus disease has caused pan-world psychosocial breakdown by causing mass hys-teria, economic liabilities and financial losses. Massive fear of COVID-19, also called "corona phobia", has caused a syndrome of widespread psychiatric mani-festations across the different strata of society and communities. Therefore, it is imperative to determine the various possible ways in which the COVID-19 pandemic will impact the world's mental health.[5-7] The director-general of WHO has also referred to this

"coronavirus infodemic", which is breeding fright and panic by laying out unchecked mind-boggling rumours, flamboyant news propaganda and sensationalism.[8] This so-called infodemic has not done as good as it leads to increasing hysteria and stress factors in the general public and the doctor community.

Our results in the 2019-Group were comparable with different studies on the subject, e.g., in the teaching hospital of Karachi, where stress was 68% job dissatisfaction overall. In comparison, in our post-COVID-19 Group, it was 40.4% which is much less than they noted. There was no difference between males and females when the level of stress pre and post-COVID-19 was studied. The level of stress was relatively high in some senior doctors because of the age factor, while some junior doctors were worried about taking the infection to their homes. The stress level may have been different in doctors working in different departments like the ICU of the hospital [5,6].

Similarly, the personality of the health care workers has not been studied as a variable as doctors may have OCP and neurotic phenomena like other persons of the community. Rather, they may have more exogenous stress factors in normal scenarios. These are more predictive of stress which may not be COVID-19 work-related, as shown in our study results. The general feeling and hearsay among doctors and the media during the COVID-19 scenario seem to be overinflated if we see the increase in stress, especially among young doctors after the COVID-19 pandemic was not significant rise.[9]

Although when a stress factor rises in masses. Naturally, stress increases more in vulnerable groups whenever there is an epidemic. It was also recorded and assessed in the published literature on influenza A (H1N1) infection among healthcare workers during the 2009 pandemic. An update was carried out in May 2016.[10-12] However, in our study, the results were different, and there was less fear among the doctors. There may be no variation among both groups in our study because of demographic, religious and social factors. The severe stress was less than 2% in Group II and 6% in pre-COVID-19 time. In pre-COVID-19 time, in our study, stress score was higher than the general public.[13,14] The COVID-19-related work environment was not significantly affecting young doctors compared to consultants. This can also be considered a good motivation among the doctor community to treat their ailing population during the pandemic.

Media organizations play an important role in disseminating news about a public health crisis, and media coverage directly or indirectly impacts public behaviours.[15,16] On the one hand, media publicity could increase the public's knowledge and prevention tips about COVID- 19. Moreover, the Healthcare workers who may have been protesting about the non-availability of the PPEs were portrayed as non-motivated doctors, which was misinformation.[17,18] During the outbreak of COVID- 19, most of the general public thought unofficial news about COVID- 19 was too much and less reliable, and it is suggested that government should take control of unofficial news regarding the health of the public and release COVID- 19 and other health-related information appropriately and timely.[19]

In general, health care workers continued working in so-called stressful circumstances without taking significant loads of patients with COVID-19 infections, as is evident in our study results. The general public should be informed of the good work of the health care workers, and a more work-friendly atmosphere could have been created in such testing times of epidemics. This appreciation for frontline warriors will go a long way in improving crisis-like situations.

CONCLUSION

The level of stress among the doctors may have increased after the COVID-19 infection; however, there is no significant rise in stress among the doctors working in public sector hospitals of Pakistan during their work in post-COVID-19 time.

Conflict of Intrest: None.

Author's Contribution

SN: Critical review, drafting the manuscript, approval of the final version to be published.

AN & NAA: Conception, study design, drafting the manuscript, approval of the final version to be published.

NL: Data analysis, data interpretation, critical review, approval of the final version to be published.

JA & SK: Data acquisition, critical review, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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