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Psychological Effects of COVID -19 among Doctors

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Abstract: ***Background:*** Doctors caring for patients during infectious outbreaks such as COVID 19 have reported negative psychological effects. However, little is known about how the experience influences their professional self-image. ***Material and Method:*** This is an observational, cross-sectional and multicentre study. The present paper's ultimate objective is to measure the Psychological Effects of COVID -19 among Doctors while engaging the COVID-19 treatments in the study area. The participants of the study are doctors who were engaging in the COVID 19 treatments in hospitals. The doctors are requested to fill the responses through Google forms. The responses are obtained from the doctors from May 2021 to August 2021. ***Result:*** In table 3, Feeling down, depressed, or hopeless were for few days 5% and 10% nearly every day. On the other hand, Trouble falling or staying asleep, or sleeping too much were 13.3% for few days and 38.33% was not at all. Trouble concentrating on things, such as reading the newspaper or watching television were 61.6% not at all trouble. ***Conclusion:*** Medical staff that performed COVID -19 -related tasks showed the highest risk for Psychological Effects even after time had elapsed. The risk increased even after home quarantine. Prompt and continuous psychiatric intervention is needed in high mortality infectious disease outbreaks.

Keywords: Psychological Effects, COVID -19, Anxiety, Insomnia.

INTRODUCTION

The outbreak of a new coronavirus (COVID-19) was first reported in Wuhan, China, since late December 2019. COVID-19 is an acute fatal disease that may cause progressive respiratory complications which end up with death. [1] The COVID-19 outburst has created fear, distress, anxiety, and depression amongst the doctors and the universal public. Doctors are predominantly prone to increase various mental health disorders than the general population. [2] Doctors who respond to the global health emergency working to defend people, families, and societies in conflicting positions with increased resources, deficiency of personal protective equipment, and other facilities discovered themselves as surprising victims in the aggressiveness against COVID-19. [3]

Healthcare professionals (doctors) are subject to extra pressures in addition to the psychological impact of the social crisis due to active involvement in the treatment of infected patients and heightened risk of illness, fear of transmission to their relatives, anxiety for themselves and the wellbeing of loved ones, feeling stigmatized and isolated and operating under extreme pressure. [4] On the other hand, the number of cases and illness-related deaths, excessive workload for an extended period of time and the loss of workers safety equipment was exacerbated by mental and physical burnout over time. [5]

Doctors are therefore faced with critical situations that increase the risk of psychological distress and this could have serious repercussions not only on their quality of life but also on the quality of care provided to the patient. [6] Several studies show that concern about high mortality rates and restrictions on people's lives have contributed to higher levels of anxiety, depression and sleep disorders in the general population. [7] Psychological disorders can also manifest themselves in non-functional attitudes, such as continuous medical consultations to obtain reassurance, distrust of public authorities, or discrimination and stigma towards particular populations. [8]

In addition, many events such as the ever-increasing number of deaths and confirmed and suspected cases, the workload and physical fatigue, the exhaustion of protective equipment, the widespread media coverage, the lack of specific drugs, the choice among patients whom to treat/select for essential therapy due to the lack of medical supplies, the risk of infection, the feeling of not being supported are all factors that can contribute to the formation of important psychological symptoms. [9]

MATERIAL AND METHOD

This is an observational, cross-sectional and multicentre study. The present paper's ultimate objective is to measure the Psychological Effects of COVID -19 among Doctors while engaging the COVID-19 treatments in the study area. The participants of the study are doctors who were engaging in the COVID 19 treatments in hospitals. The doctors are requested to fill the responses through Google forms.

The responses are obtained from the doctors from May 2021 to August 2021. The research contained questions related to demographic profiles and Psychological Effects of COVID-19 among Doctors. The study used a convenience sampling method. Overall, 60 Google forms were distributed among the doctors.

The Patient Health Questionnaire (PHQ) is a 3-page questionnaire that can be entirely self-administered by the patient. The clinician scans the completed questionnaire, verifies positive responses, and applies diagnostic algorithms that are abbreviated at the bottom of each page. The PHQ assesses 8 diagnoses, divided into threshold disorders (disorders that correspond to specific DSM-IV diagnoses: major depressive disorder, panic disorder, other anxiety disorder, and bulimia nervosa), and subthreshold disorders (disorders whose criteria encompass fewer symptoms than are required for any specific DSM-IV diagnoses: other depressive disorder, probable alcohol abuse/dependence, somatoform, and binge eating disorder).

The PHQ-9 is the 9-item depression module from the full PHQ. Major depression is diagnosed if 5 or more of the 9 depressive symptom criteria have been present at least "more than half the days" in the past 2 weeks, and 1 of the symptoms is depressed mood or anhedonia. Other depression is diagnosed if 2, 3, or 4 depressive symptoms have been present at least "more than half the days" in the past 2 weeks, and 1 of the symptoms is depressed mood or anhedonia. One of the 9 symptom criteria ("thoughts that you would be better off dead or of hurting yourself in some way") counts if present at all, regardless of duration.

As a severity measure, the PHQ-9 score can range from 0 to 27, since each of the 9 items can be scored from 0 (not at all) to 3 (nearly every day). An item was also added to the end of the diagnostic portion of the PHQ-9 asking patients who checked off any problems on the questionnaire: "How *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?"

Statistical analysis

The collected responses were converted into excel sheets and converted into SPSS software version 25 for analysis. The study used simple frequency distribution and t-test for testing the framed hypothesis.

RESULT

The area of work most represented in the study was the Critical Emergency Area (Emergency Department, Emergency medicine, Intensive care).

Table 1: Distribution of Gender

Gender	Frequency	Percentage
Male	39	65
Female	21	35
Total	60	100

In our study, total subjects are 60 among 39 were males and 21 females. These study subjects are doctors were from all clinical and non-clinical departments and all designation from Professors, Associate Professors, Assistant Professors, Demonstrators to Senior and Juniors' Resident encompass the pool of participants.

Table 2: Distribution of the number of subjects according to age group

Age group	Frequency	Percentage
<30 years	11	18.3
31-40 years	12	20
41-50 years	20	33.3
>51 years	17	28.3
Total	60	100

In this study, the maximum number of subjects were in the age group of 41-50 years which were 33.3% (n =20) followed by age group >50 years having 28.3% (n = 17) in this group and 20 % were 31-40 years in table 2.

Table 3: Distribution of the marital status

Age group	Frequency	Percentage
Single	71	32.2
Married	145	66.8
Divorced	1	0.4
Total	217	100

Table 4: Anxiety among physicians during the COVID-19 outbreak

Variables	Not at all No. (%)	Few days No. (%)	More than half of the days No. (%)	Nearly every day No. (%)
Little interest or pleasure in doing things	20 (33.3)	8 (13.3)	24 (40)	8 (13.3)
Feeling down, depressed, or hopeless	30 (50)	3 (5)	21 (35)	6 (10)
Trouble falling or staying asleep, or sleeping too much	23 (38.3)	8 (13.3)	17 (28.3)	12 (20)
Feeling tired or having little energy	22 (36.3)	7 (11.6)	24 (40)	6 (10)
Poor appetite or over eating	31 (51.6)	4 (6.6)	15 (25)	10 (16.6)
Feeling bad about yourself (or) that you are a failure (or) have let yourself or your family down	37 (61.6)	4 (6.6)	10 (16.6)	9 (15)
Trouble concentrating on things, such as reading the news paper or watching television	40 (66.6)	4 (6.6)	13 (21.6)	3 (5)
Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	48 (80)	3 (5)	7 (11.6)	2 (3.3)
Thoughts that you would be better off dead, or of hurting yourself	52 (86.6)	0 (0)	6 (10)	2 (3.3)

In table 3, Feeling down, depressed, or hopeless were for few days 5% and 10% nearly every day. On the other hand, Trouble falling or staying asleep, or sleeping too much were 13.3% for few days and 38.33% was not at all. Trouble concentrating on things, such as reading the newspaper or watching television were 61.6% not at all trouble.

DISCUSSION

This study aims to investigate the psychological impact of the COVID-19 emergency on the quality of life, work-related stress and psychological well-being of health workers. The sample that took part in the study by filling in the questionnaire consisted of 60 participants including physicians, 35% of whom were female. The data from this study is in line with the study by Kang et al., [10], which shows both that the majority of professionals were male and that their work experience ranged from 3 months to 17 years. The area of work most represented in the study is the Critical Emergency Area (first aid, emergency medicine, intensive care, intensive short observation) with a percentage of 34.4%. This figure is perfectly in line with that has been claimed in several studies conducted in various hospitals and critical care departments, including emergency departments. [11]

The study showed that most of health care workers had worked closely with COVID-19 patients but not necessarily in a COVID-19 ward and that 66.7% had not had to change wards/work areas due to the COVID-19 emergency. Again, this is in line with the findings of the studies by Hope et al. [12] Both agree that Doctors are at the forefront of the health system's response to both epidemics and pandemics. In addition, Doctors provide care directly to patients in close physical proximity, are often directly exposed to these viruses and are at high risk of developing disease. Most of the sample were rescuers or health workers who come into contact with positive people or people who know someone who has tested positive.

The results of our study shows a significant association between work area and risk of Psychological Effects, in particular the territorial areas (community medicine) and COVID-19 area are those with higher scores. The greatest concern that health workers feel in this period is that of making loved ones ill. This result is consistent with the findings of some studies, which found that the risk of being infected, transmission to family members, stigma about vulnerabilities in their work and restrictions on personal freedom were reported as key concerns. [13] Maximum number were thought they had underestimated the public health effects of the Pandemic during the initial days of the Pandemic.

Moreover, also Coia et al. agreed that the selection and appropriate use of all PPE, including respiratory and face protection, should be supported by education and training of staff. [14] Participants thought that PPE was not sufficient. This finding is fully in line with Kang et al. that participants were still concerned that PPE could not provide absolute protection. [15]

Preti et al. reported that among the psychopathological outcomes, anxiety and post-traumatic reactions were the most studied, and the results underlined the high prevalence of these areas of symptomatology in health professionals dealing with epidemic/pandemic outbreaks. This does not deviate from what was previously stated by Pappa et al. which showed that most experienced mild symptoms for both depression and anxiety, while moderate and severe symptoms were less common among participants. [16] The results of our study show that Doctors experienced higher levels of

stress in the early months of the pandemic than physicians. This underlines the need for early diagnosis and the importance of effectively collecting and treating psychological symptoms before they develop into more complex and lasting clinical pictures as shown by the results of a study conducted in Italy. [17] Mental health monitoring and adequate psychological care and intervention must therefore be considered fundamental for the support of the whole community and, in particular, of the most fragile or exposed persons, such as health workers. [18]

Studies conducted in Turkey, Iran and Spain confirm the prevalence of psychological symptoms among healthcare workers. A study conducted in China (9) showed that depression (50.4%), anxiety (44.6%), insomnia (34.0%) and stress (71.5%) were the most common psychological symptoms. [19] Risk factors included being female, being a nurse, having a high risk of contracting COVID-19 or having at least one family member with COVID-19 and social isolation are the most cited for the development of severe psychological symptoms. [20] The global spread of COVID-19 has therefore put the responsiveness of health systems to the test and numerous research studies are needed to assess the mental health of health workers, given their important role in responding to the situation. In addition, WHO also recommends that a large number of studies should be carried out in these circumstances, to provide guidelines that can help strengthen the response capacity of health systems.

Conclusion

In addition to structural and policy level protection and support for health workers, our study further illustrates that self-image in health professionals is affected by hospitalised isolation required in the course of caring for patients. These subtle changes include positive aspects of feeling pride and growth in the profession and expanding one's self-understanding, but also include doubts about feeling sufficiently protected and/or valued in the dangerous work they commit to do for the well-being of their patients.

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