

Behavioural Changes in the Personal and Professional Lives of Doctors during COVID-19 Pandemic: A Cross-sectional Observational Study

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ABSTRACT

Introduction: During the Corona Virus Disease (COVID-19) pandemic, Health Care Workers (HCWs) have experienced an unexpected increase in workload which leads to feelings of uncertainty, anxiety, and isolation. Furthermore, they are more vulnerable to contract the infection and transmit it to their family and colleagues.

Aim: To evaluate the effect of COVID-19 pandemic on doctors life in term of personal and professional changes.

Materials and Methods: The present observational, cross-sectional study was conducted on doctors in various institutes of Udaipur, Rajasthan, India. The study comprised an online questionnaire survey which consisted of three parts; the first part constituted demographic data, the second one constituted questions on the personal life status and changes, and the third

part constituted questions regarding the professional life and some miscellaneous questions gauging the doctor's knowledge of the current scenario. The collected data were entered in a Microsoft excel sheet, and the results were calculated.

Results: Most of the participants were between 25-34 years (47.8%) and male (71%). A majority of the doctors had a family with children (44.2%) and a spouse who was a HCW too (59.8%). A majority of the practitioners worked with patients with coronavirus (52.3%) and thus felt worried about their family members (93.3%). Although most participants knew about telemedicine (89.3%), most of the practitioners did not practice it (76.8%).

Conclusion: Although HCWs do not face harassment, they suffer anxiety regarding contracting COVID-19 themselves and transmitting it to their family members.

Keywords: Health care workers, Stress disorders, Workload

INTRODUCTION

The Chinese city of Wuhan reported a novel disease caused by the coronavirus at the end of December 2019, which is now called the COVID-19. The disease has spread at a rapid pace domestically and internationally [1]. On January 30, 2020, the World Health Organisation (WHO) declared the global COVID-19 outbreak a public health emergency of international concern [2]. In India, as of October 2020, the cases of COVID-19 exceeded 7.5 million with more than 1,00,000 deaths [3]. In Rajasthan, Jaipur, Jodhpur, and Udaipur accounted for half of the cases reported in Rajasthan [4]. During such pandemics, frontline HCWs go through an unexpected increase in workload. In addition to feelings of uncertainty and isolation, they are more susceptible to the infection due to the nature of their work, direct contact with patients, and the overwhelming workload. This, in turn, increases their anxiety regarding infecting their family and colleagues [5,6].

Previous epidemics such as the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 and the Middle East Respiratory Syndrome (MERS) outbreak in 2015 have proved the long term and persistent psychopathological consequences pandemics have on the HCWs [7-9]. HCWs are prone to psychological symptoms such as acute distress and post-traumatic stress disorder, leading to absenteeism from work [9]. Non-frontline HCWs are also vulnerable to psychological stress due to a lack of medical information on the outbreak, inadequate formal psychological support, and relative ignorance of measures of infection control [10]. The general population is safeguarded against the COVID-19 pandemic through several precautionary measures instituted by the government such as the lockdown, physical distancing, wearing face masks, and digital services [11]. On the contrary, health care professionals have to

work longer shifts in uncomfortable equipment that causes difficulty in breathing [11]. This plight of the HCWs brings about behavioural changes in both their personal and professional lives, which have been largely ignored in the literature. A detailed study of the same would allow the recognition of early psychological problems and their appropriate solution. The COVID-19 pandemic has positive and negative impacts on different aspects of lifestyle behaviours. Most of the surveys were conducted to access the prevalence of depression, anxiety, and life style modification in general population, and HCWs in different countries. These findings provide scientific evidence that can inform lifestyle guidelines and public mental health interventions during COVID-19 outbreak [12,13].

The present study thus attempted to analyse the behaviour changes in the personal and professional lives of doctors during COVID-19 pandemic.

MATERIALS AND METHODS

The present observational, cross-sectional study was conducted on 224 practicing doctors working in various institute of Udaipur, Rajasthan. Institutional Ethical clearance was obtained (IEC/PIMS/2020/137/A). The study duration encompassing all the processes was from May 2020 to September 2020. The study comprised an online survey that assured the confidentiality and anonymity of the participants. Practicing doctors in Udaipur city were included in the study after obtaining consent. Retired doctors, doctors who were not practicing at the time of the survey, and those unwilling to take part in the survey were excluded from the study.

An online questionnaire was sent through "WhatsApp" to several doctors attached to different hospitals and institutes in the city. It was also posted on "WhatsApp groups" comprising of only doctors.

Participation in the survey was optional, with the doctors permitted to opt-out at any time in the study. The survey was initiated on 10th September 2020 at noon and closed at 5 pm on 15th September 2020. Once a participant clicked on the link and accepted to be a part of the survey, they got auto directed to fill in some demographic information and answer several questions appearing sequentially on screen. A total of 256 doctors agreed to participate in the study. However, 32 questionnaires were excluded because of incomplete or mismatched information. Thus, the final analysis was performed on 224 questionnaires.

The questionnaires was self-designed for institutional study purpose that was made under supervision of Head of Department of different departments of the institute, face validity and content validity was ascertained after consultation with psychiatrist and statisticians on validity of question in ascertaining the mental status of a person.

The questionnaire was self-prepared based on inputs from psychiatrist and statistician. The questionnaire was first tested on a pilot sample of 30 doctors who were aware of its use in a study and responded. The data from the pilot study was tabulated and taken to statistician who calculated Cronbach's Alpha value to be 0.61 and stated that it was a valid questionnaire which did effectively measure the desired parameters/components. These 30 doctors were not the part of the final statistical analysis of the study.

The questionnaire comprised of three parts:

1. The first part constituted demographic data.
2. The second one constituted questions on the personal life status and changes. The questions were taken from a standardised questionnaire called Generalised Anxiety Disorder Assessment (GAD-7) [14] (To assess the level of anxiety and stress).
3. The third part constituted questions regarding the professional life and some miscellaneous questions gauging the doctor's knowledge of the current scenario. No question was related to the person's identity.

Questionnaire comprised of 22 questions, which on piloting were found to take approximately 4-5 minutes to answer. The questionnaire was created and enabled on the Google survey.

STATISTICAL ANALYSIS

The collected data was entered in Microsoft excel sheet (version MS office 2013), the results were calculated in terms of percentage (%).

RESULTS

The present study was conducted on 224 practicing doctors. The personal profile of the study participants illustrated in [Table/Fig-1].

The personal profile of the study participants is illustrated in [Table/Fig-2].

Characteristic	Frequency
Gender	
Female	65 (29%)
Male	159 (71%)
Age groups (years)	
25-34	107 (47.8%)
35-44	88 (39.3%)
45-54	18 (8%)
>55	11 (4.9%)
Family status	
Only spouse/single	50 (22.3%)
Small family with children	99 (44.2%)
Joint family with elderly and children	75 (33.5%)
Spouse	
Health worker	134 (59.8%)
Non-health professionals	90 (40.2%)

Addiction habits	
Smoking	18 (8%)
Alcoholism	9 (4%)
Both	8 (3.6%)
None	189 (84.4%)
Consider quitting of addiction	
Yes	15 (43%)
No	20 (57%)
Feel harassed	
Yes	56 (25%)
No	168 (75%)
Feel proud	
Yes	184 (82%)
No	40 (18%)
Intervention for prevention	
Life style modification	76 (33.9%)
Home remedies	78 (34.8%)
Nothing	70 (31.3%)
Financial input	
Significantly less	67 (29.9%)
Little bit less	88 (39.3%)
Not affected	34 (15.2%)
Increased	35 (15.6%)
Most missed event	
Get together with family/friends	134 (59.8%)
Dining out	21 (9.4%)
Vacations	49 (21.9%)
Nothing	20 (8.9%)
Definitive cure or vaccine will possible in recent future (one year)	
Yes	172 (77%)
No	52 (22.3%)
How long will this continue?	
Next six months	32 (14.3%)
Next one year	84 (37.5%)
Never like before, live with this	108 (48.2%)

[Table/Fig-1]: Personal parameters of questionnaire (N=224).

Characteristics	Frequency
Working specialty	
Medicine and allied	134 (59.8%)
Surgery and allied	49 (21.9%)
Para clinical/public health	41 (18.3%)
Type of work setting	
Private clinic/Only OPD	12 (5.4%)
Multispecialty hospital	26 (11.6%)
Medical college and hospital	170 (75.9%)
Public sector hospitals	16
Continuation of practice	
Continue as before pandemic	117 (52.2%)
Discontinue for short period (1-3 months)	73 (32.6%)
Discontinue for >3 months	21 (9.4%)
Yet to resume	13 (5.8%)
Felt worried about family members	
Yes	209 (93.3%)
No	15 (6.7%)

Work with corona patients	
Yes	117 (52.3%)
No	107 (47.7%)
Felt worried about them	
Yes	186 (83%)
No	38 (17%)
Felt worried about family members	
Yes	209 (93.3%)
No	15 (6.7%)
Continuation of practice	
Continue as before pandemic	117 (52.2%)
Precaution is taken while facing patients (at doctor level)	
Wearing a face mask only (N-95, triple-layer, or other types)	66 (29.4%)
Wearing a face mask, face shields, and gloves	144 (64.4%)
PPE kit	11 (5.1%)
Not using anything	3 (1.3%)
Precaution is taken while facing patients (at patient level)	
Attendant not allowed	3 (1.3%)
One meter distance while attending	9 (4%)
Mask compulsory for all patients	45 (20%)
Sanitize hands before attending	4 (1.5%)
All of the above compulsory	159 (71%)
I don't mind	4 (1.7%)
Type of surgeries done (for surgeons)	
Only elective after Covid test negative	17 (34.8%)
Emergency with Covid test	10 (19.7%)
Emergency without covid with safety guidelines	14 (29.5%)
Doing as before this pandemic	8 (15.9%)
Know about telemedicine?	
Yes	200 (89.3%)
No	24 (10.7%)
Ever practiced telemedicine?	
Yes	52 (23.2%)
No	172 (76.8%)
Know about guidelines of the board of governors, MCI for telemedicine	
Know very well	130 (58%)
Didn't hear	45 (20.1%)
I hear but didn't go into details	49 (21.9%)

[Table/Fig-2]: Professional characteristics of questionnaire (N=224).

Most of the participants (84.4%) were non-smokers and non-drinkers. About 76 (33.9%) of the doctors modify their life style and 78 (34.8%) used home remedies as preventive methods against this viral infection. Despite decreased financials, a majority of healthcare workers (75%) did not feel harassed and took pride in their work [Table/Fig-1].

A majority of the practitioners worked with patients with corona virus (52.3%) and thus felt worried about their family members (93.3%) [Table/Fig-1].

About 89% of practicing doctors are known about TM out of them 52% are practicing it and 58% know the proper guideline of TM. 37.5% of the practicing doctors are sure about continue of this pandemic for next one year. 77% of the doctors are expecting definitive cure in future in form of medicine or vaccine [Table/Fig-2].

DISCUSSION

The present study observed that the majority of doctors were within 25-44 years of age (87.1%). This finding was concurrent with the fact that may be the relatively higher immunity and the lesser prevalence of co-morbidities occurs in this age group. Thus,

doctors in this age group are more active in the pandemic situation. A majority of participants in this study were male (71%). This is contrary to the findings of Urooj U et al., Kang L et al., and Lai J et al., [15-17]. These studies were performed on both doctors and nurses. As a majority of nurses are females, the predilection for females can be explained. On the contrary, the present study was conducted exclusively on practicing doctors. Additionally, cultural and household responsibilities may be another reason for female doctors to take a break from practice during the pandemic. A majority of the doctors had a family with children (44.2%) and a spouse who was a HCW too (59.8%). This explains why a majority (93.3%) are worried about their family members contracting the disease. Alenazi TH et al., also reported that living with family and the presence of the elderly in the family increased the anxiety of doctors of transmitting the disease to a family member [18]. Temsah MH et al., also reported that a majority of doctors were anxious for this reason [19]. Despite a decrease in finances due to the pandemic, most doctors continue their practice as before even during pandemic (52.2%), although a substantial number took a short break (32.6%). However, most doctors took pride in their work (82%). This signifies the level of commitment HCWs have towards their work. Despite the pandemic, a majority of doctors did not faced any harassment (75%). This sentiment is mirrored in a study by Maraqa B et al., which states that only 17.1% of doctors felt ostracised or harassed [20]. Interestingly, a majority of surgeons (34.8%) in the present study performed only elective procedures after the COVID test. This is contrary to most recommended national surgery guidelines where surgeons are suggested to prioritise urgent and emergency surgical procedures [21].

Another crucial finding in this study was the awareness of a majority of doctors regarding telemedicine (89.3%). However, a majority of doctors (76.8%) did not practice it. Telemedicine facilitates the supportive treatment of mildly ill patients and minimises their exposure to other acutely ill patients through the medium of video conferencing [22]. It is a convenient, cheap, and readily accessible method for health related information and communication and decreases the spread of COVID-19 by facilitating social distancing and limiting supplies to the most urgent cases [23]. However, several reasons may prevent its widespread use. Patients crave familiarity during a time of need. They thus prefer their usual method of physical interaction with the HCWs they usually consult and have a previously established relationship. Additionally, patients may be unaware of telemedicine as an alternative [23]. The health care system must try to overcome these barriers by educating people regarding telemedicine and underlining its advantages such as higher efficacy and safety, and reduced costs [23].

Limitation(s)

This study has certain limitations. The relatively small sample size and the study in a less affected city as compared with cities such as Mumbai and Pune, prevent the generalisation of its findings. Furthermore, the questionnaire survey method is a subjective (and not objective) method of analysis and may introduce participants, prejudice as a confounding actors. Further multicentric prospective studies with a larger sample size that analyse parameters objectively will further strengthen the findings of this study.

CONCLUSION(S)

Present study concluded that majority of the doctors perform their duties with dedication, however, most doctors took pride in their work. This signifies the level of commitment HCWs have towards their work. Despite the pandemic, a majority of doctors did not face any harassment while attending the patients. But on the other hand most the doctors are worried about their family members on contracting the disease. So telemedicine is a type of intervention that is safe, efficacious, and low-cost method of providing health care while decreasing the spread of COVID-19 through physical

distancing. Telemedicine must thus be promoted and encouraged by the health care system, governmental agencies, and the media.

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