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Occupational Stress among Indian Doctors during COVID-19

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Abstract: Background: There is growing evidence that psychiatric illnesses due to workplace stress (Wong, 2008) are more common in medical professionals worldwide (stress, depression, anxiety and insomnia) and feelings of emotional exhaustion, and it was found to be related to shortfalls in regime of health and wellness. Emerging content in support of the truth that Indian health care professionals (Dasgupta, 2009) are now operating under pressure due to the workplace condition, and the current COVID-19 pandemic has also amplified (Elbay, 2020), and we need to research the occupational stress among Indian doctors more than any other time, that can carry out observations from the data gathered during this review, which will be crucial in identifying the problem at hand and providing appropriate data-backed recommendations for changing the status quo.

Aim: To analyse various aspects of Occupational Stress among Indian doctors during COVID19 which might lead to a lack in the efficacy of execution in patient treatment.

Materials and Methods: In order to capture and evaluate psychological responses from Indian Medical Professionals and related characteristics during the COVID-19 pandemic, an online study with the help of survey has been conducted. It comprises of three sub divisions addressing topics pertaining to the following key areas.: (1) sociodemographic data (2) Stress at the workplace during COVID-19(3) information on individuals` working condition.

Results: Factors found to be related to higher workplace stress in line staff healthcare professionals were as specified: Increased average operating hours, increased number of patients treated for Covid-19, reduced level of peer and supervisor assistance, lower logistic aid, and lower sentiments of performance during activities related to Covid-19. Moderate or mild level of stress was encountered by approximately two-thirds of the sample. Depression, anxiety or fatigue is linked to reduced extravagance in fun gatherings, verbal or physical violence in patient/caregiver hands, perceptions that colleagues do not display concern for patients and also towards their peers.

Conclusions: The latest study indicates a marginally greater proportion of Indian doctors who encounter stress, fatigue and burnout experiences. Long working hours and negative patient related effects (attributed to lack of per patient time, overloaded with critical stressful cases), the predominance of tension, anxiety depression, and emotional exhaustion is associated with detrimental doctor patient experiences and uncomfortable group dynamics among colleagues. Our studies have found the possible reasons that create workplace stress that need to be taken into account when battling a catastrophe that has a significant effect on civilization globally, to protect the emotional health of physicians

Keywords: Stress, Doctors, COVID-19, Psychological Effects, Outbreak

Introduction

When opposed to any other profession in the country, the practice of medicine is exceptional and overwhelming. This is not only characterized by an immense level of personal and professional fulfilment, but also with a enormous degree of work anxiety psychological distress. Studies worldwide indicate that health care workers, particularly physicians, are vulnerable to developing mental health issues (Shanafelt TD, 2012) (Mavroforou A, 2006).

In addition, workplace tension has been found to be linked with emotional fatigue as well which can result in loss of motivation for work, feeling powerless, depressed and defeated (Romani M, 2014). Those that are inherent to the task, those related to patient needs, feeling overburdened, related to roles within the organization and those related to working relationships and career development are commonly reported occupational stressors among medical professionals (Tür FÇ, 2016) (Kotzabassaki S, 2003). Among professionals, emotional exhaustion is generally known as burnout.

Since December 2019, the world has been battling a new infectious disease, which is Covid-19. In Wuhan, China, it was first identified and has spread globally over the next few months. Rapid spread of disease and rising inflows of positive tested cases and related deaths contribute to tremendous fear and public anxiety. 53.8 percent of participants graded the psychological effect of the outbreak as mild or severe in an early analysis investigating the immediate psychological response of the general population in China during the Covid-19 epidemic (Wang, 2020).

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. At 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 (PPE).

Stress response symptoms such as anxiety, depression, somatization, and aggression have been identified in around 10% of health care staff during and after recent outbreaks (Mak, 2009). During a recent SARS epidemic hospital response, a study from Taiwan suffered stress and 5 percent registered acute suffering stress disorder, 20 percent stigmatization and 9 percent avoidance had succeeded or considered resignation (Bai, 2004). In another study exploring, in a 3-year follow-up, 23 percent of workers were observed to have moderate to severe effects of the long-term psychological effect of SARS on health staff. (Liu, 2012). More recently, the prevalence of depression, anxiety and stress-related symptoms in Chinese health care employees during the Covid-19 pandemic was found to be 50.7 percent, 44.7 percent and 73.4 percent respectively (Lai, 2020). However, the information is still scarce and nothing is known about the psychological needs of healthcare workers coping with this environmental catastrophe. Therefore, to evaluate the psychological influence of the Covid-19 pandemic on health care personnel and related risk and protective factors, more extensive research is strongly advocated.

Health professionals are also likely, through the use of narcotics, to abuse multiple drugs and to develop diseases. A high prevalence of nicotine dependency and use of other drugs such as alcohol, cannabinoids and benzodiazepines has been seen in research. (S., 2008)

(Ramakrishna GS, 2005) (Mohan S, 2006) (Akvardar Y, 2004) (Hughes PH, 1992) (Lutsky I, 1994).

Medical practitioners (faculty and resident doctors) need to recognize psychological problems in view of inconsistent findings from India and rapidly increasing mental issues within the medical fraternity. Improving understanding of medical professionals of mental health concerns would help to strengthen policies on resident duty hours and training. In this context,

The purpose of the present study was to investigate the numerous psychological problems and occupational stress due to recent outbreak of Covid-19 among medical professionals working in a government or private hospitals, clinics, nursing homes, medical colleges (depression, perceived stress, substance addiction and burnout).

Based on this viewpoint, we sought to examine physicians' rates of anxiety, stress and depression during the Covid-19 outbreak and investigated related factors at both the clinical and general sites. Through our research, we hope, would provide a better awareness of the personal interests of our doctors/medical practitioners during this crisis and help in improving strategies for safeguarding their emotional well-being.

Literature Review

The developed literature on the psychiatric disorders of medical practitioners is restricted to a few national surveys and some area hospital surveys. A broad national study of 2584 Canadian physicians found that both male and female physicians had elevated levels of workplace stress associated with lower levels of contentment of medical practice (Richardsen AM, 1991).

A postal survey of 524 United Kingdom medical staff, including healthcare consultants, general practitioners and senior hospital officials, found that about 27 percent of the doctors surveyed were listed in the category of psychological depression. Furthermore, a study of 50,000 Australian practitioners and medical students found an elevated incidence of serious psychological distress along with a double-fold rise in suicidal ideations in physicians relative to the general population (National Mental Health Survey of Doctors and Medical Students, 2011). Statistics show that more medical errors and poor patient outcomes are often correlated with clinical morbidities and burnout among medical professionals (Barger LK, 2006) (Lockley SW, 2004) (Landrigan CP, 2004).

A few Indian research have investigated neurological problems, depression and emotional exhaustion among medical professionals. These studies were restricted mainly to medical students and interns, with few studies concentrating on resident doctors (Chakraborti A, 2013) (Iqbal S, 2015) (Janjhua Y, 2012) (Saini NK, 2010) (AN., 1998)

Studies have reported tension on approximately one third of resident physicians (Saini NK, 2010). Studies among medical students showed friction between three-fourths of the respondents (AN., 1998) and those with interns showed a stress prevalence of as high as 91.1 per cent (Bagdey P, 2016). Psychological morbidity literature indicates that in more than half of undergraduate medical students, depression (51.3%), anxiety (66.9%), and stress (53%) was present (Chakraborti A, 2013) (Iqbal S, 2015) (Janjhua Y, 2012). The disparities in the

approaches used to assess various psychological constructs are due to the large discrepancies among different experiments. Research has also assessed the challenges to clinical assistance and concluded that disgrace, dishonor, clandestine problems, paucity of knowledge and panic of unwelcome involvement are the main barriers to finding aid with mental health issues (Menon V, 2015). Surprisingly, none of India's research has examined the tension and psychological issues in senior healthcare professionals.

Materials and Methodology

Study architecture, population and sample, data collection, and process of data analysis is illustrated in the methodology. Methodology is the overall research method, beginning from defining the issue to the final data collection plans.

Objectives of the Study

"Understanding key stress factors using various stress survey among doctors during COVID-19 pandemic."

Participants and procedures

An inter-segmental research was conceived to examine the psychological reactions of doctors and related causal reasons during the COVID-19 pandemic. To minimise face-to-face experiences and facilitate the engagement of doctors who work intensely during this emergency, we used an online survey using Google Forms. To participate in this review, we contacted a convenient sample of physicians. The survey was spread from various specialities on different classes of social networks. At each level of the survey, all participants were given the option, where their commitment to participate in the research was checked by going ahead with each point. The data was obtained between 10 May and 25 August 2020.

The research contained questions related to demographic and personal attributes, drug use, depressive symptoms, perceived stress and burnout. 1721 physicians around the country have been issued the invitation link to the study. The letter/link of invitation indicated that participants can withdraw any time and their willingness to participate was reflected in the completion of the survey. During the weekend, the email containing the survey was sent again over six consecutive weekends. In the event that everyone did not respond in the first place, weekly reminders were sent for the next 5 weeks. Data secrecy was respected and no participants' sensitive information was revealed to anybody. Additionally, To determine factors such as drug misuse, level of participation in any leisure activities, medical errors, and patient-related aggression, self-designed research question were used.

Sample Size Determination

Using the formula $N = Z_{\alpha}^2 P (1-P)/d^2$, the sample size was calculated. In this, α was 0.05, Z_{α} was 1.96 (at a confidence level of 95 percent), and the calculated acceptable error margin for proportion, d, was 0.05.

The prevalence of psychological comorbidity was reported to be about 37% based on a previous report on the psychological well-being of physicians in China during the SARS epidemic in 2003 and a report by COVID-19 from China. (Lee, 2007 Apr) (Zhang C. Y., 2020). The sample size was estimated to be at least 358, based on the aforementioned formula.

Survey instrument

Since the outbreak, sociodemographic data on age, gender, marital status, specialties, household composition, comorbid medical diseases, history of mental disorders, smoking status, consumption of alcohol and time spent on various recreational activities such as watching TV, going to the gym, social media, etc. have been collected.

Statistical analyses

SPSS-25.00 was used to analyze the data obtained. (SPSS for Windows, Version Chicago, SPSS Inc.). For the categorical variables, frequency and percentages were calculated and mean and standard deviations (SDs) were calculated for the continuous variables.

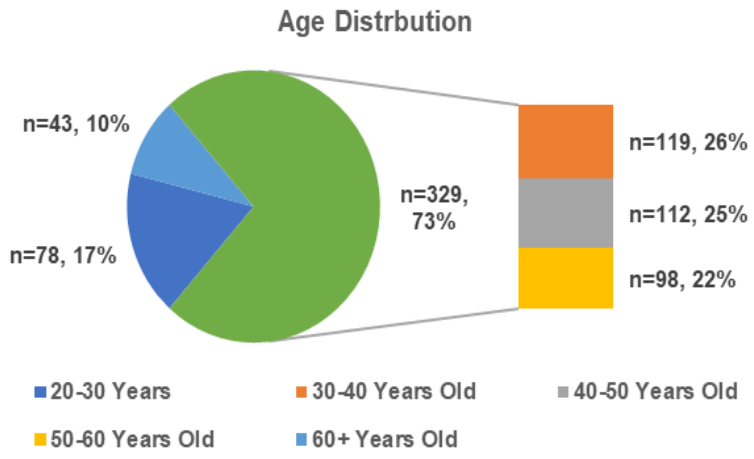
Results & Analysis

The survey was sent to 1478 medical professionals. Of these, 85 e-mails bounced back and 78 opted out of the survey at various stages of survey. Of the remaining 1607 medical professionals, 450 (34.22%) responded to the survey.

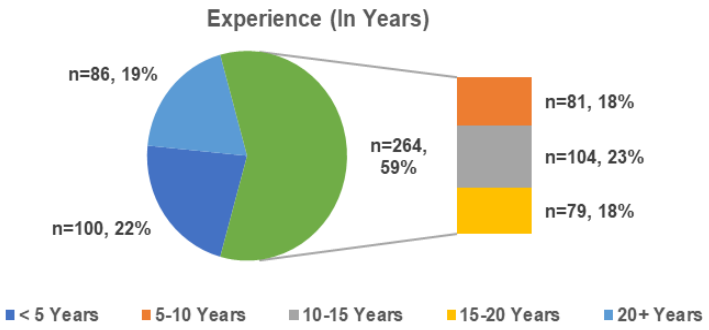
Demographic Analysis

The majority of the responders were males (*n* = 252; 56.0%). Females constituted 43.1% (n = 194), whereas some of the participants exercised the option of "Prefer not to say" (n = 4; 0.9%).

We saw almost equal distribution among the three middle order age ranges (Age: 30-60 Yrs.), with lower age and upper age bracket receiving a smaller number of responses suggesting most of the responses we received were from active doctor, whereas doctors in the age bracket 20-30 Yrs., majority of whom would be student doctors, received less participation considering less involvement in active medical duties.

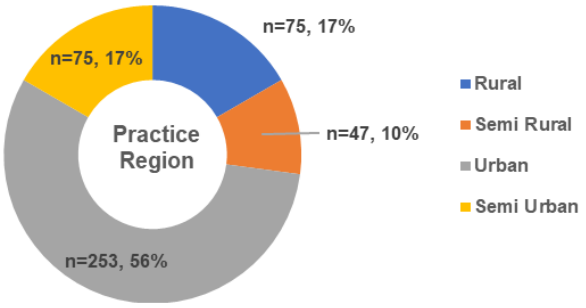


Of the 450 respondents, majority of them where married (n = 346; 77.0%) and rest of them were single (n = 104, 23.0%). In terms of practice, majority of the respondents were Government employee (n = 263; 58.4%) and rest were private practitioner (n = 187, 41.6%).



While capturing the experience level of respondents, we divided the experience years in 5 years bracket to account various experience points, as occupational stress varies based on but not limited to experience level of an individual.

To get a proper collective view, we gave options to respondents to select their practice region from four categories, namely, Rural, Semi Rural, Urban and Semi Urban. Majority of the respondents in our survey were from Urban region (n = 253, 56.2%).



Severity of Stress due to COVID-19

To understand the severity of stress among doctors, we gathered information of stress levels, and duration of the stress, to understand the increase in stress due to COVID-19. With majority of respondents choosing 4 to 6 months as duration of stress, which suggests that, their stress levels have increased with the onset of COVID-19.

Stress Level due to COVID-19 * Duration of Stress Crosstabulation

		Duration of Stress					
		Less Than A Month	1 to 3 Months	4 to 6 Months	6 months to 1 year	More than 1 year	Total
Stress Level due to COVID-19	Mild	29	29	42	0	0	100
	Moderate	10	82	94	1	2	189
	Severe	3	36	73	0	1	113
	Extreme	4	17	22	3	2	48
Total		46	164	231	4	5	450

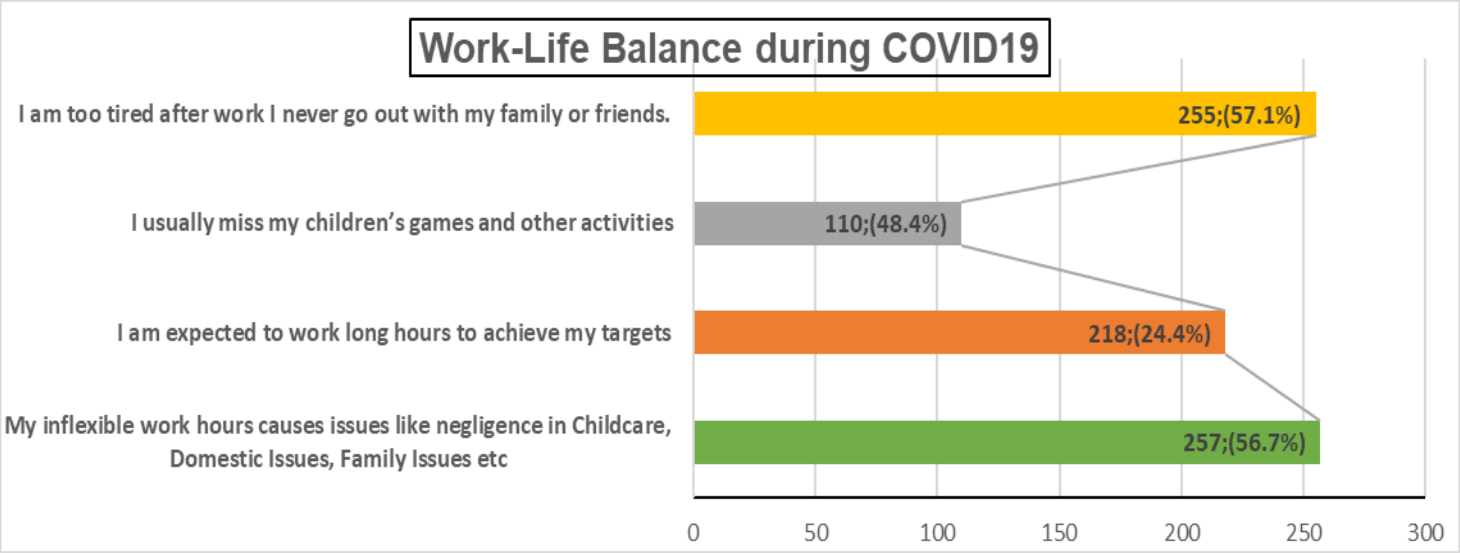
Occupational Stress factors during COVID-19 related to Work Culture

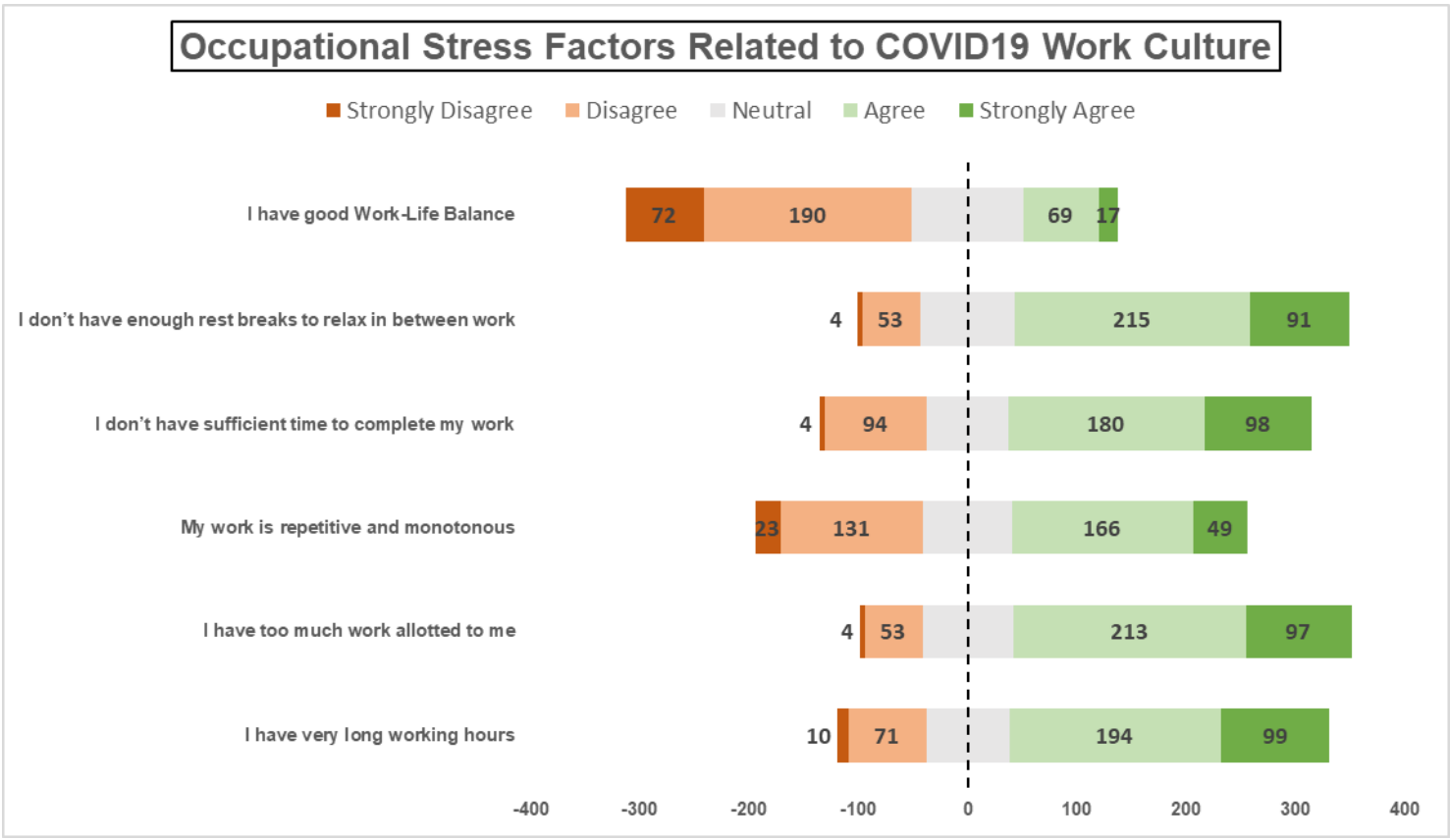
Upon performing descriptive statistics, the mean and standard deviations of various factors related to work culture which were leading to occupational stress were tabled as following.

Descriptive Statistics

	N	Mean	Std. Deviation
(During COVID-19) [I have very long working hours]	450	3.67	1.055
(During COVID-19) [I have too much work allotted to me]	450	3.77	.949
(During COVID-19) [My work is repetitive and monotonous]	450	3.19	1.125
(During COVID-19) [I don't have sufficient time to complete my work]	450	3.61	1.071
(During COVID-19) [I don't have enough rest breaks to relax in between work]	450	3.75	.940
Valid N (listwise)	450		

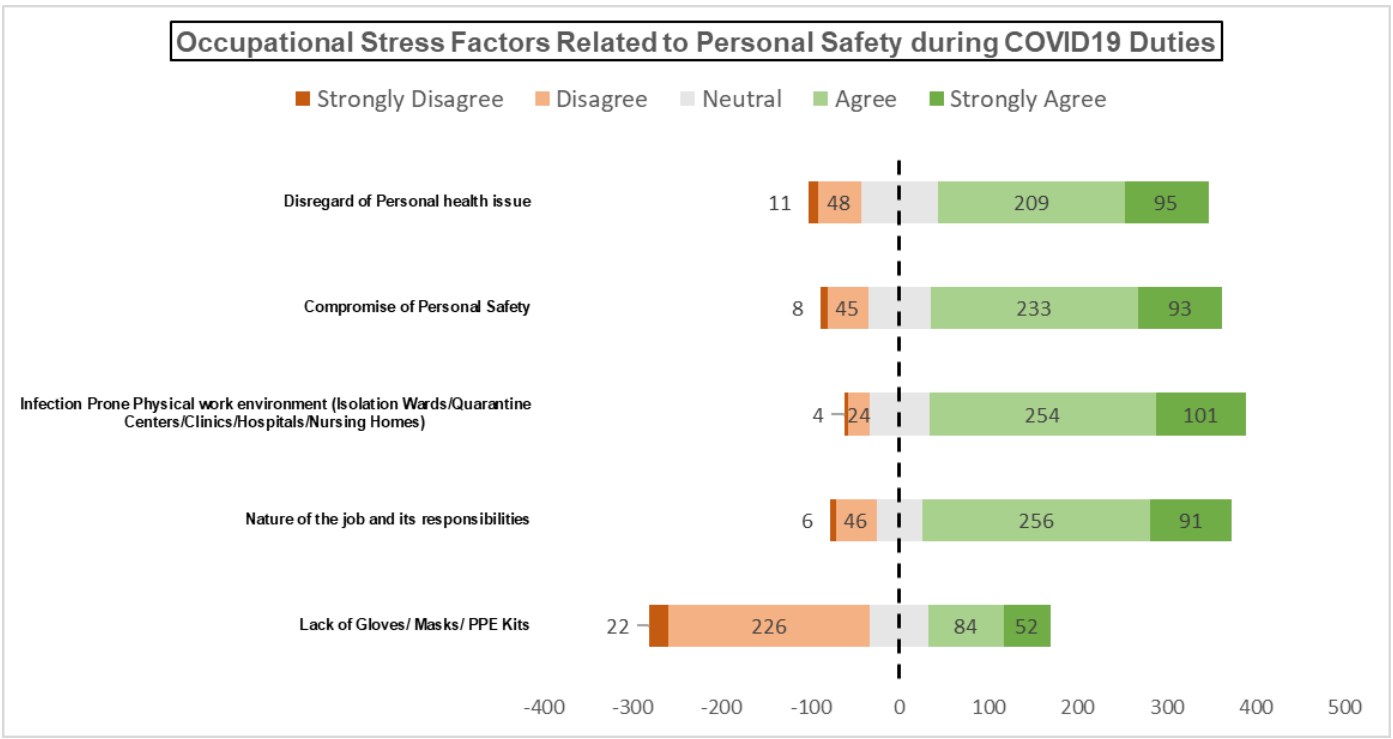
Five-point Likert scale was used during the survey to understand and categorize the various factors related to COVID19 work culture which are leading to surging occupational stress among Doctors. In our analysis of the survey, we found out that, the three most prominent factors leading to occupational stress were ***long working hours (Strongly Agree: 99, Agree: 194), Too much work allocation (Strongly Agree: 97, Agree: 213) and, insufficient time to complete the work (Strongly Agree: 98, Agree:180).*** These three prominent factors are intertwined to the core issue of increasing number of patients per doctor, which leads to over allocation of work, as surge in patients were rapid, however the same was not true for trained doctors. Also, we kept one factor related to work-life balance, and the results were in negative spectrum of the Likert scale suggesting, ***Poor work-life balance among doctors (I have good work-life balance [Strongly Disagree: 72, Disagree: 190]).***





To better understand the reasons behind the poor work-life balance, we gave options to survey respondents to choose from (multiple choice could be selected), which helped us in further zeroing into core reasons leading to poor work-life balance. Following graphs details the same. Prominent reasons identified were, ***After work Tiredness leading to less interaction with family and friends (255, 57.1%) and Inflexible work hours causing Domestis Issues (257, 56.7%).***

Occupational Stress factors during COVID-19 related to Personal Safety

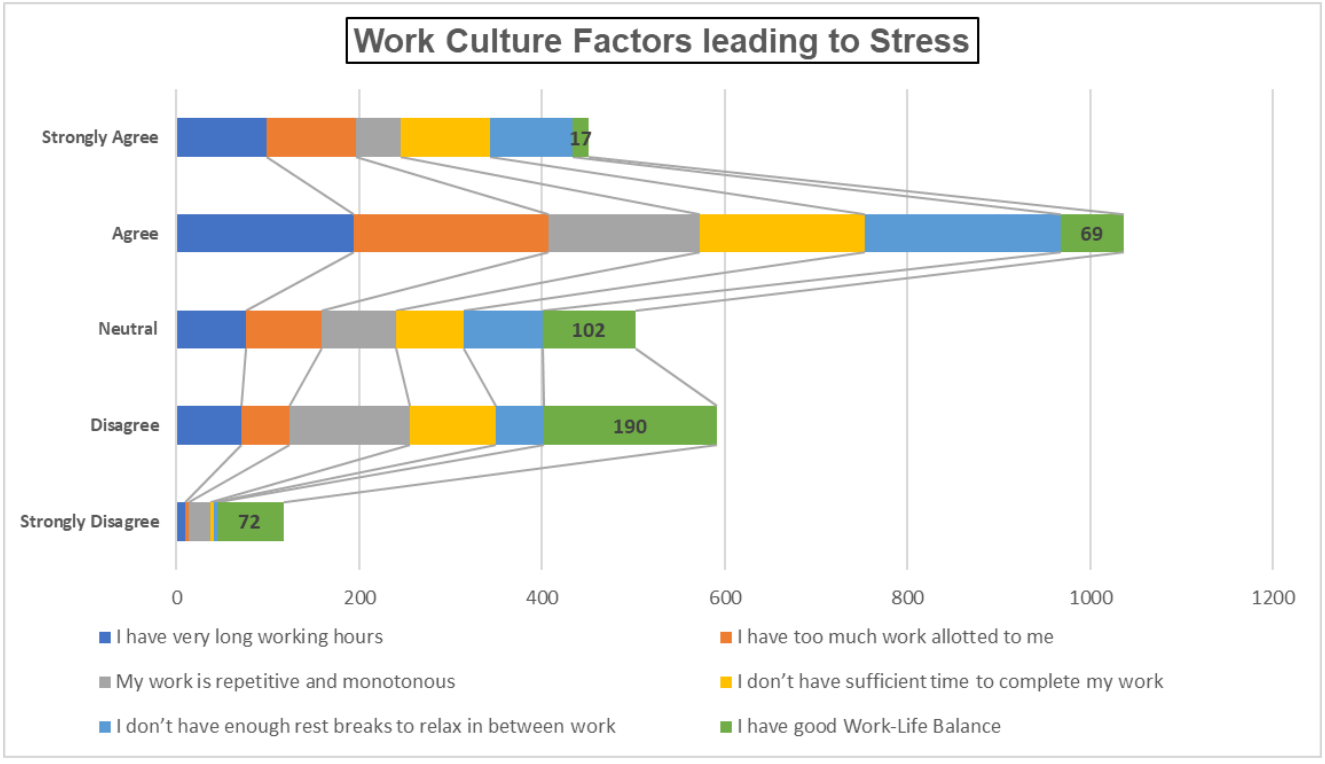


Upon performing descriptive statistics, the mean and standard deviations of various factors related to personal safety which were leading to occupational stress were tabled as following.

Descriptive Statistics

	N	Mean	Std. Deviation
Stress factors related to COVID-19 [Lack of Gloves/ Masks/ PPE Kits]	450	2.49	1.051
Stress factors related to COVID-19 [Nature of the job and its responsibilities]	450	2.82	1.147
Stress factors related to COVID-19 [Infection Prone Physical work environment (Isolation Wards/Quarantine Centers/Clinics/Hospitals/Nursing Homes)]	450	3.84	.907
Stress factors related to COVID-19 [Compromise of Personal Safety]	450	3.94	.815
Stress factors related to COVID-19 [Disregard of Personal health issue]	450	3.80	.941
Valid N (listwise)	450		

Five-point Likert scale was used during the survey to understand and categorize the various factors related to personal safety during COVID19 work environment which are leading to surging occupational stress among Doctors. In our analysis of the survey, we found out that, the three most prominent factors leading to occupational stress were ***Infection prone Physical work environment (Strongly Agree: 101, Agree: 254), Compromise of personal safety (Strongly Agree: 93, Agree: 233) and, Disregard to Personal health issues (Strongly Agree: 95, Agree:209).***



Recreational Activities for Coping Stress

In our survey, we gave our respondents various recreational activities which are common in lifestyle of a doctor, and asked them to rate each of them based on frequency namely, ***Daily, Once a week, Twice a week, Not at all.*** Results were plotted in clustered bar chart with count of above frequencies against each recreational activity. Moving average for ***Daily and Not at all,*** were also depicted on the graph using moving average trendline to identify the extreme ends.

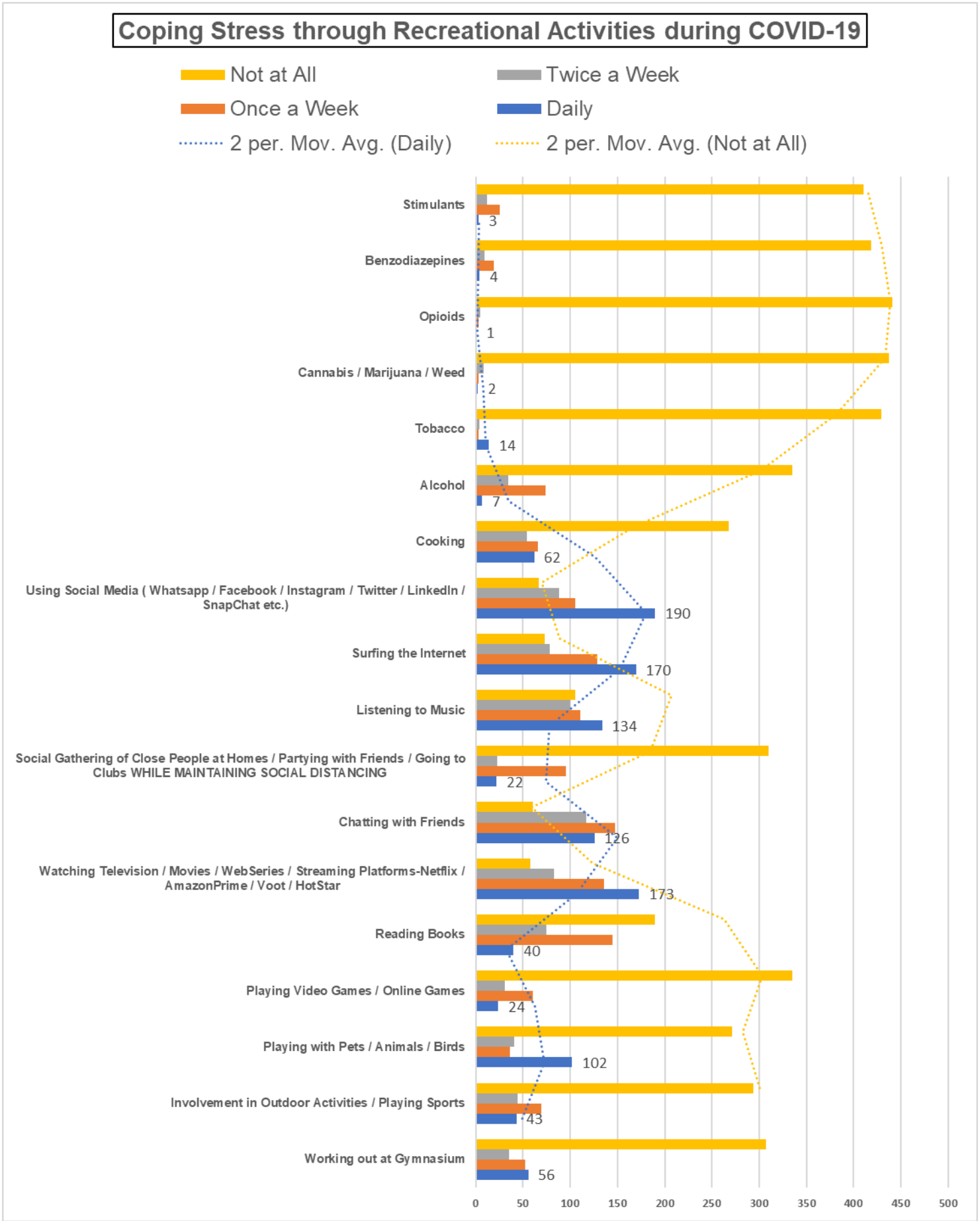
In our analysis, we found that, ***Using social media (WhatsApp, Facebook, Twitter, LinkedIn, Snapchat etc.) [Daily:190], Watching Television/ Movies/ Web Series/ Streaming platform – Netflix/ Amazon Prime/ Voot/ HotStar [Daily: 173] and Surfing Internet [Daily: 170]*** were most prominent recreational activities done by doctors to cope stress.

Use of substance uses such as ***Stimulants, Benzodiazepines, Opioids, Cannabis/ Marijuana/ Weed, Tobacco and Alcohol,*** were seen majorly in ***Not at all*** frequency category, suggesting good control among doctors, enhancing the integrity towards the noble profession.

However, considering the prominent factors, and use of electronic devices which is leading to high screen on time might have some other effects on the physical well-being of doctors. This can be taken up as another area of research to find out the effects of higher screen on time. Our analysis details out the factors employed by doctors to cope the stress which are being instrumental in alleviating the occupational stress, and at the same time maintaining the sanity of persons to repeat the tasks on hand with same amount of dedication and perfection.

Socializing with colleagues and friends over chats and listening to music were next two prominent recreational activities which came out in our analysis. It is also worth noting that the intersection points of moving average trendlines for ***Daily and Not at all,*** are against our predominant factors, suggesting the varying interest level of respondents away from substance use.

However, social gathering received good frequency of ***Not at all,*** suggesting the high level of lockdown rules and pandemic literacy among doctors, which made them to take responsible action by restricting their physical social interactions.


Coping Stress through Recreational Activities during COVID-19
Not at All
Twice a Week
Once a Week
Daily
2 per. Mov. Avg. (Daily)
2 per. Mov. Avg. (Not at All)
Stimulants
3
Benzodiazepines
4
Opioids
1
Cannabis / Marijuana / Weed
2
Tobacco
14
Alcohol
7
Cooking
62
Using Social Media (Whatsapp / Facebook / Instagram / Twitter / LinkedIn / SnapChat etc.)
190
Surfing the Internet
170
Listening to Music
134
Social Gathering of Close People at Homes / Partying with Friends / Going to Clubs WHILE MAINTAINING SOCIAL DISTANCING
22
Chatting with Friends
126
Watching Television / Movies / WebSeries / Streaming Platforms-Netflix / AmazonPrime / Voot / HotStar
173
Reading Books
40
Playing Video Games / Online Games
24
Playing with Pets / Animals / Birds
102
Involvement in Outdoor Activities / Playing Sports
43
Working out at Gymnasium
56
0
50
100
150
200
250
300
350
400
450
500

Discussions

The extent of doctors' mental health issues

The research indicated that a large number of physicians suffer from mental health issues after a pandemic, including diagnosable mental health conditions. As follows, they are enumerated.

a) Anxiety

Prevalence of anxiety in doctors ranging from 44.6% to 62% in the form of COVID-19. (Kang, 2020; Lai, 2020). A study conducted in India amid swine influenza found that 98.5 percent of health personnel reported mild form anxiety and another similar study showed significantly higher anxiety scores among SARS doctors than their counterparts from the non-SARS unit (Su, 2007; Mishra, 2016).

b) Depression

Research conducted during SARS have registered a 38.5 percent and 29 percent incidence of depression in front-line doctors, respectively, with the other study finding a higher incidence among nurses (45 percent) than doctors. More exhaustion, stress, and post-traumatic symptoms were also documented in studies examining stress and depression in doctors after 1 year of the SARS outbreak (Lee, 2007 Apr). In COVID-related studies, elevated rates of depressive symptoms as high as 50 percent were found in doctors (Lai, 2020; Zhang W. R., 2020).

c) Insomnia

A comprehensive review from Taiwan found that 37% of physicians in the SARS unit were suffering from insomnia. (Su, 2007). The prevalence of insomnia among front-line doctors has been reported in recent studies (by the Insomnia Severity Index) to be about 35 percent-38 percent (Kang, 2020; Lai, 2020; Zhang W. R., 2020).

d) Emotional distress

A Canadian report estimated that 36% of physicians experiencing the SARS epidemic encountered a high degree of anxiety with a higher number of nurses than doctors. (Maunder R. , 2004). Another poll performed during the Ebola pandemic showed that emotional fatigue affected almost two-thirds of doctors (McMahon, 2016). Latest study has found that 62 percent-71 percent of doctors have experienced a form of anxiety in the midst of COVID-19 (Kang, 2020).

Doctors also suffer from other psychiatric problems, such as inappropriately perceived self-health, depersonalization, low personal performance, during the quarantine era. (Nickell, 2004; Kang, 2020; McMahon, 2016).

Occupational Stress Factors among Doctors during COVID19

Socio-ecological factors

Socio-ecological causes, such as having an infant or a sick elderly person in the household, which they would often take care of during the pandemic while fulfilling duties as doctors (Maunder R. , 2004; Nickell, 2004).

a) Job stress/occupational stress

Infection-contracting physicians lead to gross understaffing at healthcare facilities. Such a scenario entails the doctors dealing with minimal money, lengthy working hours and constantly shifting assignments, and working in an unfamiliar atmosphere that results in immense emotional distress, even for the new teammates. This is exacerbated by unparalleled quarantine / isolation conditions and rigid interpersonal distance management. Western research shows that after the pandemic, doctors are also bound by the provincial order not to operate in several locations, resulting in financial difficulties.

b) Infection prone Work Environment

Doctors operating in the high-risk sector are at increased risk of exposure to infections (Nickell, 2004; Lai, 2020). A Wuhan (China) study estimates that as many as 87.5 percent of doctors have been contaminated with COVID-19. Such a high chance of exposure to illness leads doctors to feel anxiety, pain and stress, and is often compounded by the possibility that their loved ones may be contagious, leading to significant mental health concerns.

c) Social distancing

In the ongoing COVID-19 to overcome the viral disease, the prevention of physical touch is considered to be an essential step. Due to which, doctors are forced to keep their closed ones apart, which deprives them of the emotional connectivity, they otherwise crave. Furthermore, retaining social distance from their family members leads to a lack of emotional participation from the relevant members which leads to interpersonal conflict and mental health concerns. (Maunder R. H., 2003; Nickell, 2004; Su, 2007).

d) Lack of PPE Kits

Working with a limited stock of personal safety devices for front-line doctors is not uncommon. Such a condition leads to panic and distress among doctors. The problem is also exacerbated by ambiguity about the adequacy of PPEs in a specific context that leads to misunderstanding and concerns. However, excessive use of PPEs has also been reported to be a major cause of distress among physicians. Research reveals that PPE is a huge obstacle to communicating effectively with the patient and colleagues; functioning mostly with PPEs throughout extended durations, in turn, also leads to extreme burnout. (Cheong, 2004).

e) Quarantine

Quarantine is an essential step in the pandemic to mitigate contamination. Front-line doctors also have to operate in segregated wards where they are the patients' primary providers of care. Doctors suffer from burnout and often feel the absence of self-control in the absence of much needed internal contact and social reinforcement. In addition, front-line doctors frequently have to live in isolation, which deprives of emotional assistance from close medical friends and family members, resulting in numerous psychological disorders (McMahon, 2016).

f) Lack of organisation and colleagues' encouragement and support

Isolation / quarantine is an essential step in the pandemic to mitigate contamination. Front-line doctors also have to operate in segregated wards where they are the patients' primary providers of care. Doctors suffer from burnout and often feel the absence of self-control in the absence of much needed internal contact and social reinforcement.

In comparison, during such a disaster, the mental health challenges of doctors are frequently ignored. The much-needed annual monitoring is usually elusive for any mental health concerns.

g) Role conflict

The research available shows that doctors frequently suffer from a position dispute (between their position as healthcare practitioners and their position as parents or family staff). They also threaten or stay apprehensive about their family members being a contagion (Maunder R. , 2004; Khee, 2004). Literature shows that greater rates of anxiety, depression and frustration are identified by front-line doctors with infants. This can contribute to ignoring organisational coping mechanisms and absenteeism, which adversely impact the efficiency of a company.

Conclusions

Compared to the Western Pacific and European countries, India was hit by pandemic comparatively late, although the dissemination of COVID-19 was very widespread. The country has registered over 9,07,883 confirmed cases and 1,04,555 deaths as of 7th October 2020 (Ministry of Health and Family Welfare, Govt. of India, 2020). A large number of front-line doctors have also fallen victim to COVID-19 as a global trend. The government was swift to put in place restrictions around national transit points in order to reduce the transmission of the virus and introduced stringent measures, including a complete national shutdown and forced social distancing. As a result, there are extensive complications, travel restrictions, difficulties in buying essential products and obtaining other crucial services (e.g. transport, health care, etc.) around the country.

The social media rounds of misinformation / rumour resulting in prejudice towards the physicians, as well as violence and adverse treatment cases towards them, worsen this situation. The fears about the availability of PPEs, the course of the pandemic, and exclusion / quarantine are adversely impacting the mental health of physicians.

More motivational and morale-boosting programs should be actively sought by the public and doctors in order to alleviate their anxiety. The government should take urgent action and accept full responsibility for any wrongful incident linked to COVID-19 on the part of the doctors and their relatives. Cash benefits and accelerated monthly wages for physicians have been declared by local bodies in many states. All of these increase doctors' morale and the government should not feel ignored.

Some of the suggested measures to mitigate the psychological impact of COVID-19 in physicians, based on the findings of the available literature, are learned from the experiences of other countries:

- ***i.*** *Provision of mental health condition screening, evaluation of mental health needs and institution-level mental health assistance and front-line physician services;*
- ***ii.*** *Analysis of the nature of mental health issues; and the participation of MHPs in policy formulation and implementation; and the constructive role and leadership of MHPs.*

The goal of the latest study was to highlight the psychological effect on front-line doctors of the pandemic. Among physicians, the severity of mental health issues is enormous; burnout,

insomnia, depression, stress-related illnesses, and so on are some of the prevalent conditions. Different molecular, psychological and socioenvironmental variables mediate it. Lack of successful communication, substantive assistance from the government body, confusion, lack of PPEs, prejudice and professional stress are some of the main potential causes for the development of mental health problems among physicians.

The psychological influence of COVID-19 among physicians may be reduced to a large extent by studying lessons from previous pandemics and from other nations that have successfully treated and worked on COVID-19. More research, particularly from low- and middle-income countries such as India, is required to develop therapies customized to the needs of doctors.

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