



SCIREA Journal of Clinical Medicine

ISSN: 2706-8870

<http://www.scirea.org/journal/CM>

November 30, 2021

Volume 6, Issue 6, December 2021

<https://doi.org/10.54647/cm32705>

I have never seen a patient from far: Narratives of Doctors during the Covid-19 Pandemic in India

Megha Dhillon¹, Vaidehi Mishra²

¹ Department of Psychology, Lady Shri Ram College, University of Delhi, New Delhi, India

² Department of Psychology, University of Delhi, South Campus, New Delhi, India

*Correspondent author

Email: vaidehimishra7@gmail.com (Vaidehi Mishra), meghadhillon@gmail.com (Megha Dhillon)

Abstract

The present study is a qualitative investigation of the lived experiences of Indian doctors in the context of the Covid -19 situation in the country. Data was collected through in-depth interviews with ten participants including two female doctors and eight male doctors. The data obtained from the interviews was analysed using the technique of thematic analysis. Results indicated that doctors perceived the situation in the country as one fraught with a large number of challenges. These ranged from poor public compliance with safety measures and shortages in personal protective equipment to lack in the availability of health infrastructure. In addition to these, doctors also reported impacts of the pandemic on their personal lives. These included persistent anxiety over not only acquiring the virus but also passing it on to their families and some doctors reported changes in their interactional styles with their family members. The doctors missed being able to enjoy the little things in life and socialising with their loved ones. Family and faith emerged to be the most common ways of dealing with the stresses created by the situation. Alongside a desire for things to come back to normal, doctors

looked for greater support from the government for the provision of better infrastructure. There was dissatisfaction over the government's ability to protect doctors from harassment and this was another area within which doctors sought a positive change. Implications of the study and future directions have been discussed.

Keywords: doctors, covid-19, lived experiences, coping, psycho-social impacts, India

Introduction

The emergence of the COVID-19 pandemic has wreaked havoc within medical systems across the world. Over 25 million cases have been reported globally so far and this number is rapidly rising. The high number of cases in countries such as the United States, Brazil and India has put their health care systems under tremendous pressure. As the war against the virus endures, physicians, nurses, and other health care personnel remain tenacious on the forefront. However coping efficiently with a wide-spread pandemic is highly demanding and bound to have implications for the mental, social and physical well-being of health personnel. Past experience with the Ebola virus and SARS indicates that healthcare workers experience extremely high stress [1, 2] during such times. A study in China conducted during the SARS epidemic found that at least 75% of health care workers suffered some form of psychiatric morbidity [3]. Moreover these effects can last for up to three years after outbreaks are controlled [4].

Presently, the challenges being posed to health workers by the COVID-19 pandemic are leading researchers to uncover its psychological impact on health workers. Lai et al. (2020) conducted a study among health care workers treating Covid patients in China and found that 71.5% respondents reported distress, while depression and anxiety were reported by 50.4% and 44.6% respondents respectively [5]. Several factors determined these mental health outcomes. Those engaged in direct diagnosis, treatment and care of patients with COVID-19, workers in Wuhan, nurses and women reported more mental health symptoms as compared to other groups. On similar lines Guisti et al. (2020) found high levels of state anxiety, depression and post-traumatic stress among health professionals working in a health institution in the Northern Italy [6]. The researchers also found a high prevalence of burnout with several participants reporting moderate to severe levels of emotional exhaustion, feelings of depersonalization and a reduced sense of personal accomplishment.

India's health care system is vast but far less developed than nations such as China and Italy. For instance in the 2019 Global Health Security Index, which measures pandemic preparedness for countries based on their ability to handle the crisis, India ranked 57, much lower than Italy placed at rank 31, suggesting that India is more vulnerable to the pandemic [7]. India's investment in the health sector has been low in the past years, amounting to only 1.3 per cent of its GDP. This is lower than other developing countries such as Brazil, which spends 7.5 per cent of its annual GDP on health; Srilanka which allocates 1.68 per cent; and Bangladesh, which dedicates 2.2 per cent [7, 8]. The Indian health system is also characterized by large state-wise differences alongside large urban and rural gaps in the availability and quality of services. As a nation, India wrestles with a severe shortage of healthcare workers. Given the strain that the pandemic has put on the health system and personnel of the country, it is imperative to investigate the experiences and perceptions of doctors in India. In one such study Khanam et al. (2020) assessed the psychological impact of delivering health care services during COVID 19 in Kashmir and found that 60.9% of frontline health care workers showed severe psychological impacts [9].

The psychological toll taken by the pandemic on medical personnel stems from many intersecting features of the current situation. Among the primary features is the spread of the virus among health care workers in the country. The stresses of working with a virus easily transmitted even by asymptomatic and pre-symptomatic persons are exacerbated by the other conditions within which doctors have been operating since the corona virus began to spread in India. These include working in makeshift settings created to handle the large number of patients that come into hospital settings to be treated for the virus, lack of specific drugs, inadequate access to personal protective gear and harassment from certain quarters of the public [10]. Doctors and nurses have to cover extra shifts to make up for the absence of staff members who have been infected or quarantined, leaving little time for family and personal life.

Quarantine after exposure to Covid positive patients itself can have adverse short term and long term effects on psychological well-being [11]. Social distancing measures within hospitals may also have detrimental effect on the mental health of medical personnel. A study on social distancing measures in a tertiary hospital following SARS noted that employees were advised to avoid interaction with colleagues beyond work hours, at a time when people longed for social interaction. Meals had to be eaten alone as they required removing one's mask and emails became the primary mode of communication. While these steps were

necessary to control the spread of the virus, they also led to staff feeling lonely and isolated [12]. Despite working in harsh conditions in the midst of a pandemic, doctors in Indian government hospitals have faced delayed and reduced salary payments further compounding their difficulties [13]. Many doctors were compelled to shut their clinics during the initial phase of the pandemic due to the threat of the virus, shifting instead to tele-consultation.

Although efforts to manage the illness among a growing number of patients have been spearheaded by the health care personnel of the country, their work has been mired by myths and misconceptions among the public. There have been media reports of health care workers experiencing various forms of stigma including violence [14], eviction from home [15], isolation within neighbourhoods, local shops and among one's social circle [16]. It is apparent that doctors are a very high risk group currently. While their work is deemed rightfully heroic, the toll that providing such care must also be acknowledged. However studies on doctors' experiences on the management of the pandemic in India have been far and few. The present study addresses this gap in literature documenting doctors' lived experiences in context of the Covid -19 situation through their own narratives. It is hoped that the information gathered in the study will contribute to for the creation of structures that can foster the medical community's well-being, in the face of tremendous stress.

Method

Participants

The study was conducted with 10 participants comprising two female doctors and eight male doctors using the technique of convenience sampling. The participants interviewed were between the ages of 41-71 years (mean age = 54.8 years) and the average duration of work experience was 26.8 years. Three doctors in the sample were directly involved in taking care of Covid infected patients. At the time of the study the participants were residing in the Indian cities of Delhi, Kolkata, Lucknow and Mohali. The participants belonged to different specializations and were working either in hospitals and clinics. All but three doctors were involved in private practice. The remaining were in the government sector. Among the sample in the study one doctor and his wife had contracted the virus and then recovered from it. Another had a distant family member who suffered due to coronavirus. One of the doctors reported losing colleagues due to Covid-19.

Tool

In order to understand the impact of the pandemic on Indian doctors, a semi-structured interview schedule was drafted. The questions were based on a variety of domains that assessed the participants' perceptions regarding changes in their workload and routine, effects on their physical and mental health, implications for their families and the personal and professional challenges that have arisen since the corona virus outbreak in the country. Emphasis was also placed on understanding doctors' views on the support they received for their work from the public and the government, the attitude of the public and government towards them during the course of the pandemic, and the sources of support they desired. The questions developed for the interview were open ended in nature so as to elicit detailed answers from the participants. Due to the restrictions created by the pandemic and the busy schedule of the doctors, the interviews were conducted telephonically. Each interview lasted for 50-60 minutes.

Data Analysis

The data obtained from the interviews was analyzed using thematic analysis. This technique allows researchers to classify commonly recognized patterns and relationships within the data to answer the research questions of the study in a significant way. Thematic analysis has been extensively used to analyze a plethora of qualitative data from interviews, focus groups, and qualitative surveys. The steps outlined by Clark and Braun (2013) were systematically used in the present study to extract the themes from the data. These 7 steps implemented were transcription, reading and familiarization, coding, searching for themes, reviewing themes, defining and naming themes, and finalizing the analysis [17].

Results

Assessment of the pandemic

In speaking of their assessment of the pandemic situation in the country, the doctors spoke of two main aspects. The first of these was regarding the precautions people have been asked to take to protect themselves from the virus. Most doctors felt that the public was being far less cautious than the situation warranted. They felt that people were neither wearing masks adequately, nor were they maintaining the required social distance.

Nobody wears a mask. Nobody knows about social distancing. I sit in an OPD and I see so many cases. We can't risk our lives to cure everybody when the public won't even take the basic precautions.

The doctors attributed the lack of caution among the public to a number of factors such as lack of awareness, high levels of illiteracy in the country, the novelty of the pandemic wearing off and callous attitudes. Given the low rate of precautionary measures that they witnessed the doctors by and large reiterated that each individual had to take the onus of protecting their health. The second aspect discussed by the doctors was the role of the government in managing the crisis in the country. There were mixed opinions regarding the steps the government had taken to control infection rates. A few doctors were appreciative of the government's efforts, in terms of the treatment provided to patients and the testing being done, though it was acknowledged that governments across different states had showed variations in their handling of the pandemic.

The government is doing everything they can but it depends state to state. State government should also be proactive or else it won't work. One state could recover and other won't only because of the government handling and public mentality.

The other doctors felt that the central government could have been more pro-active and far sighted in its approach to the threat posed by the virus for instance by stopping international flights earlier and announcing financial packages for the aid of migrant workers whose movement across the country due to job losses is understood to have played a role in the spread of the virus into the Indian hinterland. One doctor also mentioned that improvements observed in the quantity (although not quality) of personal protective equipment being provided to doctors was only attributable to their own efforts and activism. There were also worries about the government underplaying the number of corona virus cases in the country and the numbers of doctors getting infected. Lack of clarity in policy on hospital admissions and limitations in the health infrastructure were aspects of the pandemic that doctors felt the government ought to pay more attention to. One doctor felt that politicians were being poor role models for the rest of the country.

During bhoomi puja the Prime Minister used the mask well but the rest of the politicians were wearing it below the nose. If those well-known people don't use it properly how do you expect the public to use it well.

Every doctor spoken to, recognized the situation as a grave one, although there were differing opinions on whether the country was approaching herd immunity and what the eventual outcome of the pandemic would be. The doctors acknowledged the danger that the virus posed to the population and how uncertain life and death matters could be in context of the virus.

The professional strains of the pandemic

When asked if the pandemic had affected their daily routines, the participants provided varying kinds of responses. Some doctors reported working as much now as they worked before the crisis. Others had either entirely shifted to online consultations or witnessed a reduction in the number of patients they met in a day. Finally, for some others, the pandemic had amounted to an increase in their workloads. Despite doctors' differences in workload, it was apparent from the interviews that all the doctors were experiencing a large variety of stressors related to the pandemic. Dealing with asymptomatic patients and patients concealing their symptoms were sources of concern for the doctors. At times patients were unwilling to get tested or get admitted in hospital.

Contact tracing is a huge challenge and motivating patients to get tested. Shifting them to isolation centers are also a huge problem. They don't want to go and they lie about their symptoms, they want to be quarantined at home which is not a possibility. The patients in isolation centers complain about facilities constantly.

The reluctance for getting tested was partly attributed to the stigma that has come to be associated with persons who test positive for the virus. The fear of being tracked by health workers and contact tracing by the police could be other reasons for the refusal to get tested. Further, the precautions doctors had to take in order to reduce the chances of getting infected were considered necessary yet time consuming and tiring. The need of having to maintain distance from one's patients was also seen to hamper doctors' natural or preferred style of working. Pandemic related protocols were reported to create dissatisfaction in doctors as well as patients.

I have never seen a patient from far. I used to take history from close by. This is my job and I wanted to do it well and give the best treatment according to my judgment. Now I can't do that. I see patients from far, we both wear masks, I have a PPE suit on during practice. We can't see the patients from close anymore because we don't know who is a carrier who isn't.

Certain doctors had undergone financial losses due to being unable to practice in the initial months of the nation-wide lockdown or the reduction in patient numbers. Patients were reported to be unwilling to come to hospitals and clinics due to the threat of the infection.

My hospital runs only for four days a week now instead of 7. And during lockdown it was 1-2 days even if that. OTs are all stopped unless it is emergency. Hospitals earn from ICU and surgeries. So, income is low, very low. I can only carry all my employees for two months only but if this continues I will also have to lay off many of my employees to cut our costs.

All the doctors in the sample had prior exposure to dealing with disease outbreaks. Yet the current pandemic was perceived to be wider-more spread and pervasive than the other diseases they had encountered, including the swine-flu. When asked about whether their education had prepared them to deal with the current situation, several doctors believed that it was about learning on the job, although their training had equipped them with knowledge about different kinds of viruses and some degree of crisis management.

The pandemic and personal life

The pandemic had affected doctors not only professionally and physically but also in psychological and social ways. Mentally doctors reported feeling frustrated by the pandemic related lockdown along with high levels of stress and behavioral changes.

It has affected it a lot. Behavioural change has happened. When I come home from my clinic I have to go clean myself. I am very much hyper at that time. If everything is not ready I lose my temper.

All the doctors interviewed in the present study were taking several precautions to protect themselves including avoiding touching patients, keeping patients' relatives outside the consultation room, asking patients to wear masks or shields and sanitizing their rooms, once patients left. Yet there was a persistent worry about their own health and passing the infection on to their families, particularly to their children or elderly parents. The fears had led some participants to try and physically distance themselves from their loved ones.

Now I am living in a single room away from my house. I haven't slept next to my son for the past four months. I haven't touched him at all or met him. I have my mother and mother in law also living in my house with my son and wife. I had to take the precaution for them.

One doctor had been unable to give her own father the medical attention that he had needed due to the conditions created by the pandemic. The doctors reported a reduced enjoyment of the small things in life such as buying things from the market or enjoying a meal with their

family in a restaurant. Many doctors spoke of missing their social lives which had been stalled due to the pandemic.

The holidays are gone. No parties. No getting together. We are all social beings who can't live in isolation. It will all impact mentally. It might change your personality it is going change you

Some doctors also spoke of the stigmatization they faced by the people around them, as they were a high-risk group for contracting the infection.

When we had Covid, a poster was put outside house. Leave us aside, nobody was talking to us, but nobody was giving the ironer opposite our house, their clothes. Even now I am back to working there are some people who are still reluctant to come close.

The prolonged battle against the virus and the morbidity and mortality rates of the pandemic had begun to fatigue some of the doctors in the present study. Some short-term physical impacts had also been felt, although no long lasting effects had been experienced so far. Several doctors were making a conscious effort to remain a healthy lifestyle and build their immunity. However the emotional impacts of the pandemic were also clear. There was a strong desire to know when the pandemic would come to an end. Only doctor spoke of receiving mental health support to deal with the anxieties created by the pandemic.

Anxiety is about how long it will last. How long will it carry on? If it carries on for years it will be boring and dull life. The challenges we discussed makes me unhappy. If it continues I will lose interest in working. After a given time you need a change. I will stagnate.

Coping and support

Doctors used a variety of strategies to cope with the challenging times of the pandemic. Three doctors spoke of faith in God for a situation that was essential not in their control. The doctors' families also emerged to be a strong source of support.

My husband. He has his own practice. He shut his hospital down he took care of the house when I had to work all the time. In those days he was taking care of my parents and the kids.

Optimism, a problem-solving orientation, the zest to work for one's nation and supportive peers were others ways mentioned by the participants as ways of coping. While the doctors were using certain internal and social support systems to grapple with the challenges of the pandemic, they also sought more support especially from the central and state governments in their regions. Support was desired in terms of the provision stronger health-based

infrastructure, more protective equipment for doctors and better use of finances devoted to the medical sector

We need to build more facilities with negative pressure and intubation equipment which protects the doctors. We need certain drugs for intubation when the patient coughs and we need to intubate covid patients. In order to prevent heavy dose exposure we need those drugs. We need a large barrier swab collection equipment. These can be and should be provided but it is not available to us now.

There was also dissatisfaction on how the government had handled attacks against doctors during the pandemic. In general, there was grave discontent due to perceived injustices doctors had to face even before the pandemic.

We get attacked on the daily. Even I have been harassed by the public when I was doing late night ER duty some years ago. The patient sadly lost their life but we were blamed even though the patient's life was critical. We tried our best but we were still harassed.

One doctor mentioned that the government had responded firmly to the attacks due to doctors taking legal steps. Stricter laws protecting doctors and punishments for attackers were endorsed by some participants. Doctors also spoke of how the media was interested in sensationalizing matters of this nature rather than creating positive changes for the medical fraternity. While the doctors recognized that the attacks against them had received adequate coverage, there was also the sense that the media was biased in its reporting.

Discussion

The interviews indicated that doctors harbored concerns on many fronts as India continues its struggle against the pandemic. To the extent that the spread of the virus depends on precautionary measures adopted by people, the doctors worried about the lack of caution and public compliance with safety measures. These concerns have been repeatedly expressed by various state governments and highlighted in the media [18]. Risky behaviors in the face of existing threats have been studied in contexts rather than Covid and it has been found that various cognitive biases may prevent people from taking requisite precaution. One such barrier is that of unrealistic optimism, which is the tendency to think that one is less likely to get an illness as compared to others [19]. If people underestimate the risk involved, then they have less reason to protect themselves against risks, adopt precautions [20] or learn information on how to reduce risk. Another cognitive barrier that could contribute to risk

taking is fatalism or the belief that nothing can be done. Such thinking can be problematic particularly when dealing with situations wherein something can be done to reduce risk but the person refuses to accept this. Rather the person adopts that the belief that what is meant to happen, will happen thus reducing the motivation to engage in preventive health behaviors. Fatalism has been associated with the avoidance of screening programs and treatment refusal [21]. Little work has been put in to investigate the prevalence of such barriers among the Indian populace at this time or to address them in order to increase rates of preventive actions. The interviews also indicated fears and anxieties about being infected and then passing on the infection to their families. These anxieties are highly reasonable given that in August 2020, the Indian Medical Association reported that a total of 196 doctors in the country had succumbed to COVID-19 [22]. Most doctors in this group were above the age of 50 years, and among those who died 40% were general practitioners. Moreover the problem of shortages in PPEs was also perceived as resolved primarily through the doctors own efforts. For example, in May 2020, about a 100 doctors and paramedic staff in Hyderabad went on a strike complaining that they were not being issued N95 respirators and PPE equipment. It was after the strike that the Ahmadabad Municipal Corporation ordered 2000 respirators from neighboring districts [23]. A major concern expressed by some doctors in the study was the lack of governmental support in terms of health infrastructure availability. Lack of infrastructure is a problem that affects several Indian states. A study computing the vulnerability index for the virus found the 9 most populous states of India including Uttar Pradesh, Maharashtra, Bihar as being most more vulnerable to the pandemic because of widespread poverty and poor accessibility to health facilities [24]. Bihar for instance has just 0.11 hospital beds available per 1000 population.

Amid the chaos created by the pandemic, doctors also faced the brunt of the stigma associated with the virus. Firstly, doctors felt that they could be stigmatized due to the virus. Secondly stigma entailed refusals by patients to get tested for the virus. Several incidents regarding the stigmatization of patients have been reported. For instance, in one case a 37-year-old man, hung himself after being consistently harassed by his community due to being suspected as carrying the virus although he had tested negative for Covid-19 [25]. Given the situation, Union Health Ministry of India issued a guide for reducing the stigma associated with being infected. Further in October 2020, the Delhi government announced that there would be no posters outside the houses of COVID-19 patients to minimize the stigma stemming from such posters. While these steps are welcome, their effectiveness remains to be evaluated [26].

The doctors believed that governmental measures were needed not only to protect them from the Covid-19 virus but also assaults from the public, which were reported to be superseding the present crisis. Incidents of violence against health personnel going to residential colonies for COVID-19 related work led to the Indian government making public pleas for greater appreciation of medical personnel through community acts of clapping and lighting lamps in their honor. After a strong stand by the medical community, the government also promulgated an ordinance that made harassment against healthcare workers involved in tackling Covid-19, a non-bailable offence. The government declared that it had “zero tolerance” for harassment against doctors, nurses, paramedics and other healthcare personnel [27]. A few days later, the Indian Air Force saluted the medical workers of the country by conducting fly pasts and showering petals on hospitals [28]. Despite symbolic and legal steps, assaults against doctors have continued as have their attempts to assert their right to safety. The situation therefore is still unfolding with new developments and challenges emerging every day.

Implications

The challenges mentioned by the doctors demand serious consideration to ensure their well-being. A multipronged strategy is essential in addressing the concerns of the doctors ranging from stronger remuneration packages and ensured availability of good quality PPEs to safety in the face of public harassment. It has also been suggested that healthcare workers should also be provided with term life insurance and other benefits for their work. In fact those working in intensive care units should get special incentives as they work with the most critical patients. In the battle against the pandemic the role of mental health workers in providing psychological support to doctors must be seriously deliberated upon. If not effectively recognized stress whether personal or professional can lead to a plethora of other problems including reduced immunity, depression and burnout [29]. One step may be to train senior staff or a core group of doctors to identify those at higher risk of psychological morbidity. Moreover screening medical personnel for psychological vulnerabilities before assigning them to stressful work environments can be beneficial in protecting the mental health of doctors. Medical personnel fitting a certain socio-demographic profile such as fewer social contacts, less educational attainment, and a past history of medical or psychiatric illness are more prone to distress [30]. It is for this group that screening may play a critical and protective role. Staff may be trained in psychological first aid to support co-workers showing of distress. Resilience training [31] and the development of certain coping strategies [32]

including anticipation and planning have also been found to be beneficial for mental health. A sense of altruism regarding one's work was protective and can also reduce fears about the virus [11]. Promoting this sense of positivity around one's work and sharing instances of success stories in the face of the pandemic can produce positive outcomes. In a situation in which resources are limited, interventions must focus first on front line workers. Now videoconferencing platforms have proven their efficacy for the delivery of mental-health treatment. These may be supplemented by peer support groups and the availability of hotlines that can be easily accessed.

Limitations and Future Directions

This study has certain limitations. The sample size of this study was small due to the unavailability of doctors who were extremely occupied with their work at the time of the study. For the same reason, the present sample included only 3 doctors who were directly involved with the treatment of COVID-19 patients, although it is apparent that doctors who are not front-line workers have also been deeply impacted by the pandemic. All the doctors interviewed in this study were working in urban settings. There were also more male participants than female participants in this study. The results found are thus applicable only to the current sample. Due to the spread of corona virus, the interviews had to be conducted via telephone and in a single session. The inability to conduct face to face meetings meant that the researcher was unable to observe facial and body language cues of the participants while they answered the questions. The busy schedule of the doctors also meant that researchers could not return to participants to collect any additional information after the first interview. In the future, investigations such as this one need to take place in rural areas where doctors are understaffed and under-equipped. It is important to study the family members of doctors who are front line workers to gauge the psychosocial impact of living with a person who is always in direct contact with a highly contagious virus. Lastly, research needs to be conducted on identifying available facilities for doctors' mental healthcare to assess how they can be strengthened and more efficacious.

References

- [1] Tam, C. W., Pang, E. P., Lam, L. C., & Chiu, H. F. (2004). Severe acute respiratory syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among

- frontline healthcare workers. *Psychological medicine*, 34(7), 1197–1204. <https://doi.org/10.1017/s0033291704002247>
- [2] Raven, J., Wurie, H., & Witter, S. (2018). Health workers' experiences of coping with the Ebola epidemic in Sierra Leone's health system: a qualitative study. *BMC health services research*, 18(1), 251. <https://doi.org/10.1186/s12913-018-3072-3>
- [3] Chong, M. Y., Wang, W. C., Hsieh, W. C., Lee, C. Y., Chiu, N. M., Yeh, W. C., Huang, O. L., Wen, J. K., & Chen, C. L. (2004). Psychological impact of severe acute respiratory syndrome on health workers in a tertiary hospital. *The British journal of psychiatry : the journal of mental science*, 185, 127–133. <https://doi.org/10.1192/bjp.185.2.127>
- [4] Su, T. P., Lien, T. C., Yang, C. Y., Su, Y. L., Wang, J. H., Tsai, S. L., & Yin, J. C. (2007). Prevalence of psychiatric morbidity and psychological adaptation of the nurses in a structured SARS caring unit during outbreak: a prospective and periodic assessment study in Taiwan. *Journal of psychiatric research*, 41(1-2), 119–130. <https://doi.org/10.1016/j.jpsychires.2005.12.006>
- [5] Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA network open*, 3(3), e203976. <https://doi.org/10.1001/jamanetworkopen.2020.3976>
- [6] Giusti, E. M., Pedroli, E., D'Aniello, G. E., Stramba Badiale, C., Pietrabissa, G., Manna, C., Stramba Badiale, M., Riva, G., Castelnuovo, G., & Molinari, E. (2020). The Psychological Impact of the COVID-19 Outbreak on Health Professionals: A Cross-Sectional Study. *Frontiers in psychology*, 11, 1684. <https://doi.org/10.3389/fpsyg.2020.01684>
- [7] Kapoor, C. (2020, June 10). Covid-19: Is Indian healthcare system heading for collapse? *Anadolu Agency*. <https://www.aa.com.tr/en/asia-pacific/covid-19-is-indian-healthcare-system-heading-for-collapse/1871871#:~:text=In%20the%202019%20Global%20Health,seen%20a%20high%20number%20of>
- [8] Kaul, R. (2019, November 1) India's public spending on healthcare continues to remain lowest globally. *Hindustan Times*. <https://www.hindustantimes.com/india-news/india-s-public-health-spending-lagging-behind/story-6YPZFSfWMVIHGipDXyUEFO.html>
- [9] Khanam, A., Dar, S. A., Wani, Z. A., Shah, N. N., Haq, I., & Kousar, S. (2020). Healthcare Providers on the Frontline: A Quantitative Investigation of the Stress and

- Recent Onset Psychological Impact of Delivering Health Care Services During COVID-19 in Kashmir. *Sage journals*, 42(4), 359-367. <https://doi.org/10.1177/0253717620933985>
- [10] Sarkar, K. (2020, June 4). As Covid-19 cases rise, makeshift hospitals need to be set up: Centre tells SC. *Hindustan Times*. <https://www.hindustantimes.com/india-news/as-covid-19-cases-rise-makeshift-hospitals-need-to-be-set-up-centre-tells-sc/story-N6WmtOlv68PsfKMdHEEvpK.html>
- [11] Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., Liu, X., Fuller, C. J., Susser, E., Lu, J., & Hoven, C. W. (2009). The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 54(5), 302–311. <https://doi.org/10.1177/070674370905400504>
- [12] Chen, N., Wang, P., Hsieh, M., Huang, C., Kao, K., Chen, Y., & Tsai, Y. (2007). Impact of Severe Acute Respiratory Syndrome Care on the General Health Status of Healthcare Workers in Taiwan. *Infection Control & Hospital Epidemiology*, 28(1), 75-79. <https://doi.org/10.1086/508824>
- [13] Soni, P. (2020, May 21). Doctors fighting COVID-19 got upto 50% pay cut — and some of them haven't been paid yet. *Business Insider*. <https://www.businessinsider.in/india/news/doctors-fighting-covid-19-got-upto-50-pay-cut-and-some-of-them-havent-been-paid-yet/articleshow/75838969.cms>
- [14] Sakhadeo, D. (2020, April 2). Healthcare workers attacked as fears about coronavirus take hold of India. *Global Voices*. <https://globalvoices.org/2020/04/02/healthcare-workers-attacked-as-fears-about-coronavirus-take-hold-of-india/#>
- [15] Ellis-Peterson, H. & Rahman, S. A. (2020, March 30). Indian doctors being evicted from homes over coronavirus fears. *The Guardian*. <https://www.theguardian.com/world/2020/mar/30/indian-doctors-being-evicted-from-homes-over-coronavirus-fears>
- [16] Biswas, S. (2020, July 19). India coronavirus: 'Our neighbours made us Covid-19 pariahs'. *BBC News*. <https://www.bbc.com/news/world-asia-india-53418762>
- [17] Clarke, V. & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26, 120-123.
- [18] Complaints from states that people becoming lax in taking Covid-19 precautions: Health ministry. (2020, September 8). *The Times of India*. <https://timesofindia.indiatimes.com/india/complaints-from-states-that-people-becoming->

[lax-in-taking-covid-19-precautions-health-ministry/articleshow/77998692.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst](https://economictimes.indiatimes.com/news/politics-and-nation/indian-medical-association-urges-pm-modi-to-give-government-jobs-to-children-of-martyr-doctors/articleshow/77998692.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

- [19] Weinstein N. D. (1987). Unrealistic optimism about susceptibility to health problems: conclusions from a community-wide sample. *Journal of behavioral medicine*, 10(5), 481–500. <https://doi.org/10.1007/BF00846146>
- [20] McKenna, F. P., Horswill, M. S., & Alexander, J. L. (2006). Does anticipation training affect drivers' risk taking?. *Journal of experimental psychology. Applied*, 12(1), 1–10. <https://doi.org/10.1037/1076-898X.12.1.1>
- [21] Sharf, B. F., Stelljes, L. A. & Gordon, H. S. (2005). 'A little bitty spot and I'm a big man': patients' perspectives on refusing diagnosis or treatment for lung cancer. *Psychooncology*, 14(8), 636-46. <https://doi.org/10.1002/pon.885>
- [22] Thacker, T. (2020, September 1). Indian Medical Association urges PM Modi to give government jobs to children of 'martyr' doctors. *The Economic Times*. https://economictimes.indiatimes.com/news/politics-and-nation/indian-medical-association-urges-pm-modi-to-give-government-jobs-to-children-of-martyr-doctors/articleshow/77878501.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- [23] Ahmedabad: Doctors at SVP strike work over N95 masks. (2020, May 13). *The Times of India*. <https://timesofindia.indiatimes.com/city/ahmedabad/gujarat-doctors-at-svp-strike-work-over-n95-masks/articleshow/75706834.cms>
- [24] Acharya, R. & Porwal, A. (2020). A vulnerability index for the management of and response to the COVID-19 epidemic in India: an ecological study. *The Lancet Global Health*, 8(9), 1142-1151. [https://doi.org/10.1016/S2214-109X\(20\)30300-4](https://doi.org/10.1016/S2214-109X(20)30300-4)
- [25] Facing 'Social Boycott', Himachal Man Hangs Self Day After Testing Negative for Coronavirus. (2020, April 5). *News18 India*. <https://www.news18.com/news/india/facing-social-boycott-himachal-man-hangs-self-to-death-day-after-testing-negative-for-coronavirus-2565349.html>
- [26] No posters outside houses of isolated patients will help reduce COVID-19 stigma: Experts. (2020, October 9). *The Economic Times*. <https://economictimes.indiatimes.com/news/politics-and-nation/no-posters-outside-houses-of-isolated-patients-will-help-reduce-covid-19-stigma-experts/articleshow/78574180.cms?from=mdr>

- [27] Cabinet okays ordinance to protect frontline workers. (2020, April 22). *The Economic Times Bureau*. <https://economictimes.indiatimes.com/news/politics-and-nation/govt-brings-ordinance-making-attack-on-doctors-paramedic-staff-punishable-up-to-7-years/articleshow/75291953.cms?from=mdr>
- [28] Scenes from Indian Air Force flypasts around the country to thank frontline health workers. (2020, March 3). *Scroll*. <https://scroll.in/video/960902/watch-scenes-from-indian-air-force-flypasts-around-the-country-to-thank-frontline-health-workers>
- [29] McAbee R. (1991). Occupational stress and burnout in the nursing profession. A model for prevention. *AAOHN journal: official journal of the American Association of Occupational Health Nurses*, 39(12), 568–575. PMID: 1747166.
- [30] Philip, J. & Cherian, V. (2020). Factors Affecting the Psychological Well-being of Health Care Workers during an Epidemic: A Thematic Review. *Indian Journal of Psychological Medicine*, 42(4), 323-333. <https://doi.org/10.1177/0253717620934095>
- [31] Maunder, R. G., Lancee, W. J., Balderson, K. E., Bennett, J. P., Borgundvaag, B., Evans, S., Fernandes, C. M., Goldbloom, D. S., Gupta, M., Hunter, J. J., McGillis Hall, L., Nagle, L. M., Pain, C., Peczeniuk, S. S., Raymond, G., Read, N., Rourke, S. B., Steinberg, R. J., Stewart, T. E., VanDeVelde-Coke, S. & Wasylenki, D. A. (2006). Long-term psychological and occupational effects of providing hospital healthcare during SARS outbreak. *Emerging infectious diseases*, 12(12), 1924–1932. <https://doi.org/10.3201/eid1212.060584>.
- [32] Wong, T. W., Yau, J. K., Chan, C. L., Kwong, R. S., Ho, S. M., Lau, C. C., Lau, F. L., & Lit, C. H. (2005). The psychological impact of severe acute respiratory syndrome outbreak on healthcare workers in emergency departments and how they cope. *European journal of emergency medicine: official journal of the European Society for Emergency Medicine*, 12(1), 13–18. <https://doi.org/10.1097/00063110-200502000-00005>