

### Healthcare workers experience in dealing with Coronavirus (COVID-19) pandemic

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#### ABSTRACT

**Objectives:** To analyze healthcare workers experiences in dealing with the Coronavirus (COVID-19) pandemic.

**Methods:** An anonymous open web-based survey study was conducted among healthcare workers from the March 2020 to April 2020. A total of 24 relevant questions were asked based on participants' characteristics, obligations, and preparedness in healthcare workers in the event of COVID-19 pandemic.

**Results:** Approximately 1036 healthcare workers participated in this study with high response rate. Out of all the participants, 70% were women, 52% belonged to the 26-34 year age range, 50% were nurses, 33.7% were clinicians, 74.3% agreed to work overtime, 93.1% understand why they should stay past their shift end, 97.7% thought that preventing illness among healthcare workers and providing safety to family members, nearly 94% thought that personal protective equipment (PPE) for employees will enhance their willingness to report to work. Approximately 89.3% express a desire for incentives and financial support for family members.

**Conclusion:** We recommend that providing PPE, reducing psychological stress, financial support and safety to family members of healthcare workers will increase the willingness to report to work.

**Keywords:** healthcare workers, covid-19, PPE, psychological stress, pandemic

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World Health Organization (WHO) declared the COVID-19 as a pandemic, which likely puts healthcare professionals throughout the world in an unprecedented situation. Healthcare workers are at the front line of the COVID-19 pandemic response and have the high risk of infection. Hospital associated transmission is one of the important routes of spreading

this corona virus worldwide.<sup>1</sup> Thus, the wellbeing and emotional resilience of healthcare workers are key components for maintaining essential healthcare services during the COVID-19 pandemic. The close monitoring and assessment of safety measures, which include personal protective equipment (PPE), psychological distress, fatigue, occupational burnout, stigma, and working hours incurred by healthcare workers will be motivating factors for them to answer the call for help under these extraordinary circumstances.

Healthcare workers have concerns regarding disaster events that include a fear for their safety, worries about their family's health, childcare issues, fear of contracting illness from victims, and so forth. These concerns lead to a failure of healthcare professionals to report to duty during crisis.<sup>2,3,4</sup> Many studies suggest poor willingness to report to duty during virus pandemics is caused by a lack of staff preparedness/education, provisions for PPE, vaccines, crisis counseling, and family preparedness with social support.<sup>5</sup> Healthcare professionals also express a desire for have incentives and financial support for the family members.<sup>6</sup>

At present, social media is widely used for social action such as health crisis and emergency risk management. However, the possibility of its misuse, for instance the circulation of fake news, should not be ignored.<sup>7</sup> The present survey study is designed to analyze the healthcare worker's experience while they are dealing with the COVID-19 pandemic.

**Methods.** A questionnaire-based online survey monkey study was conducted between the March 2020 and April 2020 at Prince Sultan Military Medical City, Riyadh, KSA. A total number of 1036 healthcare workers participated in this study with high response rate. The institutional ethical clearance was obtained before conducting this study Prince Sultan Military Medical City, Riyadh, Saudi Arabia. A total of 24 relevant questions were asked based on the healthcare worker's characteristics, obligations, duties, fear, preparedness and role of social media in the event of COVID-19 pandemic.

**Statistical analysis.** Excel 2010 version 2020 was used for data sorting, grouping, and for relevant analysis.

**Results.** A total of 1,036 healthcare professionals participated, of which 721 (70%) were female and 310 (30%) were male. The highest number (539/1036, 52%) of respondents belonged to 35-44, 45-54, 55-64, 18-25, and  $\geq 65$  years. The highest number of participants was nurses (50%), followed by clinician (33.7%), administrative staff (5.8%), pathologist

(4.3%), infection control (1.4%), and so on. Of the total, 39.6% were clinicians while 60.4% were non clinicians.

When the participants were asked whether they know why they should stay past their shift end in the event of disaster, 950 (93.1%) were aware and 6.8% were not. In terms of working extra hours: 753 (74.3%) were willing to work overtime. When they were asked to report to work as scheduled in the event of disaster, 932 (91.1%) of the participant agreed while 8.8% disagreed.

When they were asked about their dependents' arrangements while they are away from home for several days due to COVID-19 pandemic, 398 (38.9%) responded somehow difficult, 309 (30.2%) not an issue, 105 (10.2%) somewhat easy to manage, and 211(20.6%) very difficult to manage dependents. Nearly 97.7% of the participants thought preventing illness among healthcare worker will improve their willingness to report. A total of 990 (97.4%) thought providing safety to families of healthcare professionals, 868 (85.6%) financial support for families of workers will increase the professional attitude to come to the hospital. While 954 (94.0%) of health professionals were in favor of antiviral therapy/vaccine, PPE for employees and their families, and believe these will enhance the willingness to work.

Almost 88.4% of respondents thought that social media plays a positive role in the awareness of people during the COVID-19 pandemic. Approximately 79.7% of respondents believe that social media can use misleading text messages for Corona virus via WhatsApp, Facebook, Tweeter, Instagram, and so on. When the question was asked whether they know about their role in the event of a pandemic, 59% strongly agreed that they know their role, while 30.6% somewhat agreed, 6.7% somewhat disagreed, and 3.7% strongly disagreed. When asked about the reason for fear among healthcare professionals during the COVID-19 pandemic, 57.5% expressed fear related to safety of family members, 35.1% expressed uncertainty regarding the healthcare's professional safety, 2.7% expressed fear regarding childcare issues and 4.7% mentioned other reasons. To determine the reasons for poor reporting of health professionals at the time

of the COVID-19 pandemic, 47.3% responded fear or hesitancy, 33.3% responded psychological impact on healthcare providers, and 19.4% responded poor willingness to respond in the event of a catastrophe.

When they were asked about why participants quit their jobs during virus pandemic, 77.8% due to stress-related, workload, perception of the lethality of COVID-19, and the effect of the pandemic on social relationships. When questions asked about the kind of preparedness needed to fight stress: 88.6% of respondents has knowledge about COVID-19 transmission, knowledge about when and how to screen patients, the proper use of PPE, invoking of quarantine and isolation, and ethical decisions reduce stress in healthcare workers. Furthermore, 85.4% believe that social media can be used for sharing information, spreading awareness, by sending alerts and warnings to enable quick responses and rescue measures, and to survey the crisis management. When they were asked about the best method to manage stress during the COVID-19 pandemic, 45.2% thought that providing all kinds of PPE, 36.7% incentives, 14.1% preventing disinformation via social media.

**Discussion.** In this study, female respondents were higher than male and more than half of respondent's age was between 26-34 years. Among all respondents, 40% were clinicians while 60% were non clinicians. Present study reflects healthcare workers are committed to stay on at duty even after completion of their shift, and also willing to work extra hours in the event of COVID-19 pandemic. They are also well aware about their roles and responsibility including what to do in the event of a virus pandemic. Our data reflect the high morale, potential, and enthusiasm to work under disastrous situations of healthcare workers. The healthcare worker's response in our study will be helpful to revise the approach and also to design the guidelines for crisis management.

Moreover, frequent exposure to disaster preparations, such as disaster drills and educational sessions by the emergency and disaster management of the hospital will be helpful to increase the awareness and responsibility among the healthcare workers. Our findings are corroborated with a previous survey study that was carried out among American's healthcare workers regarding disaster preparedness. In that study, Ogedegbe et al<sup>8</sup> reported that 93% of participants know their responsibility to report to work in the event of a disaster. Also, more than 75% of study participants either strongly agreed or somewhat agreed on what they are supposed to do in the event of a disaster.<sup>8</sup>

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In this study, half of participants were nursing staff, followed by physicians. It has been observed that increased stress, workload, and the perception of the lethality of COVID-19 affect social relationships of the nurses force them to leave their jobs.<sup>2,3</sup> Nurses and clinicians are 2 major pillars of any healthcare setup and are instrumental during COVID-19 pandemic. In particular, nurses have certain obligations to provide healthcare in the event of a natural or man-made disaster.

The dependent liability is another important outcome of the present study. Our study reflects a balanced approach of the participants towards arrangements and care of dependent when they are taken away from home for several days. Because the COVID-19 pandemic created panic and is a scary situation worldwide, more than half of the responders have a concern about safety for their family members; however, only 35.1% have safety concerns for themselves. Our study confers proper safety measures and protection, preventing illness in healthcare worker, and safety for family is the major concern of healthcare workers. Beside this, fear or hesitancy and psychological impact are other important causes for the poor reporting. These concerns may increase the psychological stress in the healthcare workers, which can affect their willingness to report to work, efficiency, and quality of work as well. Many studies have reported the influence of family responsibilities and concerns for personal safety play a very important role in healthcare workers' decision to report to work in the event of a disaster.<sup>2,9-15</sup>

Approximately 90% of healthcare workers express their desire for incentives and financial support for the families (85.6%). Powel et al<sup>6</sup> reported that incentives and financial support could be a preventative measure on self and family. In our study, almost 89% responded that staff preparedness regarding specific details of COVID-19 transmission will be helpful to increase their willingness to report to work. Previous studies suggested staff preparedness/education, provisions for PPE, crisis counseling, and family preparedness can improve the willingness of public health staff to report for duty during an influenza pandemic.<sup>2-4</sup>

Most of the (85%) participants in our study thought that social media could be used to propagate the awareness on how to reduce the lethality of the COVID-19 pandemic. Contrary to this, 80% of the respondent also thought that social media may circulate some misleading information that could damage the management plan. Social media is an economic, and one of the easiest ways to convey a message, instruction,

and suggestion these days. Thus, it can play a positive role in the health crisis and emergency risk management.

In conclusion, our findings will be helpful for healthcare organizations to prepare in advance for the COVID-19 pandemic crisis. In the event of virus pandemic, motivating healthcare workers to report to work is a big challenge. We recommend that providing PPE, protecting dependents from illness, reducing psychological stress, healthcare worker's training to deal with virus pandemic, giving incentives to workers and financial support will increase their willingness to report to work. Our findings will provide crucial information for planning and recommendations for the crisis and emergency risk management in virus pandemic.

Further studies are needed to evaluate healthcare workers experiences in dealing with COVID-19 pandemic across countries.

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