



Short Communication

Impact of COVID-19 Pandemic on the Mental Health of Physicians Working in Obstetrics and Gynecology in Five Tertiary Care Hospitals in Riyadh – A Survey

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1. INTRODUCTION

The Chinese city of Wuhan reported a novel pneumonia, caused by severe acute respiratory syndrome coronavirus 2, by the end of December 2019. The disease, subsequently, came to be known as Coronavirus Disease 2019 (COVID-19) and gradually spread around the world [1]. On March 11, 2020, the World Health Organization announced that the spread of COVID-19 was such that it could be characterized as a pandemic. COVID-19 has a potential impact on the mental health of the general population and at-risk subgroups. One such subgroup is that of healthcare workers. Holmes et al. [2] identified frontline healthcare workers as one of the eight vulnerable groups for mental health research. Like many other physicians, obstetricians and gynecologists are on the front lines to treat patients with COVID-19. They are not only working tirelessly to care for such patients, but they also face a variety of psychological effects.

A physician's mental stress is negatively associated with altruism, professionalism, and quality and safety of care [3,4]. Taking into account the importance of this subject, we planned a descriptive cross-sectional study using an online survey. The primary objective of this study was to identify the prevalence of stress among obstetricians and gynecologists working in different hospitals of Riyadh and identification of related support provided to them.

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2. MATERIALS AND METHODS

2.1. Study Design

This cross-sectional, survey-based, study collected demographic data and mental health measurements from 127 physicians across five tertiary care centers in the region of Riyadh.

An online anonymous survey was conducted using a designed questionnaire. The questionnaire was divided into three sections: (a) sociodemographic details, (b) state of being, and (c) clinical and environmental factors.

Under the state of being, the responders were asked about their feelings of nervousness and anxiety, worriedness, and not taking pleasure in doing things. The responses ranged from “not at all” to “nearly every day.”

Under the clinical and environmental factors section, responders were asked a set of questions relating to:

- How the work environment had affected their mental health and how had the work environment changed. They were asked to rate these effects and changes from “not at all” to “significantly.”
- Their attitude toward the pandemic-related change at the workplace. Their questions were assessed on a scale of strong disagreement to strong agreement.

The single most appropriate option had to be chosen by each physician. The responses were clubbed in the form of a binary data in which any degree of affirmation was taken as a positive response.

The positive responses for all participants were taken together for each question to interpret the results as will be shown in the Results section.

2.2. Sociodemographic Details

The questionnaire was sent to 200 physicians working in the department of obstetrics and gynecology across tertiary care hospitals in Riyadh; of this total, 127 responded, which translates to a participation rate of 63.5%. Overall, 89% of the participants were female physicians. As this study was conducted in Riyadh, it is therefore no surprise that 99.2% of the participants worked in various hospitals in Riyadh. The respondents were aged between 25 and >70 years, and most (72%) were aged between 35 and 49 years. The group consisted of Arabs (50.4%), Asians (35.4%), Africans (11%), and Caucasians (0.8%). There were 64 consultants, 43 specialist registrars, 16 residents, and four interns.

3. RESULTS

3.1. State of Being

In our study cohort, only 9.4% of physicians had previously suffered from some mental health condition.

When asked about feeling nervous or anxious, a little more than 70% reported that they had been feeling so on “some” to “several days.” More than 60% of physicians had been bothered by not being able to stop worrying and had been showing little interest or pleasure in doing things across a wide range of days over a 4-week period.

In response to above-mentioned impact on mental well-being, a little over one-fifth had actually checked a resource for mental

well-being online, and 75% of them found those to be useful. Apart from online resources, only as little as 9.4% of physicians had sought help from other well-being services.

3.2. Clinical and Environmental Factors

When asked about how much their work environment has affected their mental health, more than three-quarters of physicians confirmed that it had an effect, ranging from very little to a significant one. A staggering 90% of physicians were concerned about contracting COVID-19 infection in the workplace, and such concerns varied from little to significant. More than three-quarters of physicians had concerns regarding access to the availability of Personal Protective Equipment (PPE) in their hospitals and were keeping up with updates regarding COVID-19 infection guidelines. Overall, 96 of 127 physicians had noticed a discernible increase in their workload. Almost 90% of physicians felt that their work environment now differed markedly from what they were used to. Moreover, 83% were apprehensive about providing competent care to patients infected with COVID-19 (Table 1).

About 86% of physicians expressed their readiness to discuss their mental health with colleagues. More than half of them felt that their mental health has altered their workplace behavior and 46% expressed a desire to take time off from work. However, 85% felt some sort of support at work. The availability of well-being services was well known to 72% of physicians (Table 2).

4. DISCUSSION

The psychological response of healthcare workers to an epidemic of infectious diseases is complicated. Sources of distress may include feelings of vulnerability or loss of control and concerns about health

Table 1 | Internal consistency of clinical factors

| Characteristic | Not at all | Very little | Little | More | Significantly | Mean ± SD | Yes (significantly) | Cronbach α |
|--|------------|-------------|-----------|-----------|---------------|-----------|---------------------|-------------------|
| How much the work environment affected your mental health and well-being | 25 (19.7) | 28 (22.0) | 25 (19.7) | 28 (22.0) | 21 (16.5) | 2.9 ± 1.4 | 102 (80.3) | |
| Concerns about contracting COVID-19 from the work place | 12 (9.4) | 31 (24.4) | 26 (20.5) | 27 (21.3) | 31 (24.4) | 3.3 ± 1.3 | 115 (90.6) | |
| Worry about the access to appropriate personal protective equipment | 30 (23.6) | 20 (15.7) | 24 (18.9) | 23 (18.1) | 30 (23.6) | 3 ± 1.5 | 97 (76.4) | |
| Were you worried trying to keep yourself update with frequently changing protocols, guidance and pathways | 28 (22.0) | 17 (13.4) | 35 (27.6) | 28 (22.0) | 19 (15.0) | 2.9 ± 1.4 | 99 (78.0) | 0.858 |
| Were you stressed with increased work load pressure? | 31 (24.4) | 23 (18.1) | 20 (15.7) | 25 (19.7) | 28 (22.0) | 3 ± 1.5 | 96 (75.6) | |
| Were you worried about being able to provide competent care to COVID-19 patient in your area? | 21 (16.5) | 31 (24.4) | 26 (20.5) | 25 (19.7) | 24 (18.9) | 3 ± 1.4 | 106 (83.5) | |
| Were you worried about the rapidly changing practice environment that differs greatly from what you are familiar with? | 13 (10.2) | 34 (26.8) | 29 (22.8) | 24 (18.9) | 27 (21.3) | 3.1 ± 1.3 | 114 (89.8) | |

SD, standard deviation.

Table 2 Internal consistency of the environmental factors

| Characteristic | Disagree | Neutral | Agree to some extent | Agree | Strongly agree | Mean ± SD | Agree | Cronbach α |
|--|-----------|-----------|----------------------|-----------|----------------|-----------|------------|-------------------|
| How strongly do you agree/disagree with following statements? Will you be able to speak with your colleagues regarding your mental health? | 17 (13.4) | 24 (18.9) | 43 (33.9) | 19 (15.0) | 24 (18.9) | 3.1 ± 1.3 | 110 (86.6) | |
| I feel my mental health has affected my work based behavior including irritability | 55 (43.3) | 22 (17.3) | 19 (15.0) | 20 (15.7) | 11 (8.7) | 2.3 ± 1.4 | 72 (56.7) | |
| I have considered taking time off work in view of my mental health during the COVID-19 pandemic | 68 (53.5) | 14 (11.0) | 13 (10.2) | 11 (8.7) | 21 (16.5) | 2.2 ± 1.6 | 59 (46.5) | 0.427 |
| I feel well supported in my work place environment | 19 (15.0) | 21 (16.5) | 34 (26.8) | 27 (21.3) | 26 (20.5) | 3.2 ± 1.3 | 108 (85.0) | |
| Are you aware of any well-being services available locally in your workplace? | 35 (27.6) | 19 (15.0) | 27 (21.3) | 24 (18.9) | 22 (17.3) | 2.8 ± 1.5 | 92 (72.4) | |

SD, standard deviation.

of self and changes in work [5]. In addition, predictable shortages of supplies, especially PPE, contribute to the pressures and concerns of healthcare workers [6].

Our study has disclosed that stress among obstetricians and gynecologists during the COVID-19 pandemic is real, and not much is known to them as to how to deal with their mental crisis, if any. In our survey, we found out that nearly half of the physicians confirmed affirmatively that they had been “living on the edge” on several days in a week.

Previous research has revealed a profound and wide spectrum of psychological impact that outbreaks can inflict on people [7]. New psychiatric symptoms in people without mental illness can occur or aggravate the condition of those with pre-existing mental illness and cause distress to the caregivers of affected individuals [8]. The psychiatric illnesses that people develop include depression, anxiety, panic attacks, somatic symptoms, and posttraumatic stress disorder symptoms, to delirium, psychosis, and even suicidality [9–11].

During the COVID-19 outbreak in China, the government implemented certain strategies to reduce the psychological burden on health workers. These include setting up of psychological intervention teams, use of shift duties, and online platforms with medical advice. The psychological intervention teams consisted of four different teams including the psychosocial response team, psychological intervention technical support team, psychological intervention medical team, and psychological assistance hotline teams [12].

Research has shown that challenges for staff include not only the increased workload created by such outbreaks but also fears of contagion for themselves and their families, working with new and frequently changing protocols and PPE, caring for patients who are very sick and quickly deteriorating, and caring for colleagues who have also fallen ill [13].

5. CONCLUSION

Our study has shown that stress among obstetricians and gynecologists is on the rise during COVID-19 pandemic. Therefore, hospitals and the government should foster an environment to help reduce stress among obstetricians and gynecologists by providing

them confidential and effective services for mental and psychological support in order to avoid mental drain and promote safe practices in this very critical branch of medicine [14].

CONFLICTS OF INTEREST

The authors declare they have no conflicts of interest.

AUTHORS' CONTRIBUTION

BM has compiled the data and written the manuscript. AB has collected the data and supervised the work of BM. YH, GA, AK and MA have helped in writing the introduction.

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