

The Mental Health Challenges Faced during the COVID-19 Pandemic amongst Staff Nurses Working at Hera General Hospital in Makkah City in Saudi Arabia

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Background: The first COVID-19 case was announced in Saudi Arabia on 2 March 2020. Since then, 5,296 people had died and 331,330 had recovered from COVID-19 in Saudi Arabia. It has been proven that pandemics have a significant psychological impact on nursing staff working on the frontlines.

Objective: To explore the impact of working on the frontline of COVID-19 on 20 nurses working at Hera General Hospital in Makkah, Saudi Arabia.

Methods: Semi-structured interviews

Results: The majority of interviewees experienced concerns for their families and personal anxiety and stress. Most also experienced direct consequences from COVID-19 apart from nursing patients with the virus.

Conclusions: It was found that more ongoing psychological support is needed for nurses working on the COVID-19 frontline in Saudi Arabia to combat depression, anxiety, stress, and PTSD.

Keywords:

Mental Health

Challenges

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Qualitative Research

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I. Introduction

This research aims to explore the mental health challenges faced by staff nurses working at Hera General Hospital in Makkah City during the COVID-19 pandemic. The COVID-19 pandemic is still ongoing, and nurses continue to address the worst impacts of the virus. In response to the greatest reported daily rise in COVID-19 cases on 20 May 2020, the general director of the World Health Organization (WHO), Tedros Adhanom Ghebreyesus, expressed concerns about the rise of cases in low- and middle-income countries (Harding et al., 2020). The first case of COVID-19 in Saudi Arabia was confirmed on 2 March 2020 (AlAteeq et al., 2020). As of October 2020, 5,296 people had died and 331,330 had recovered from COVID-19 in the Kingdom of Saudi Arabia (Arab News, 2020). Notably, Saudi Arabia is one of the world's most prepared countries for the COVID-19 pandemic due to its previous experience tackling the Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012 (Algaissi et al., 2020). As a result, health messages were provided in an accurate and timely manner, and rapid response teams and contact tracing was swiftly introduced (CDC, 2020).

Given their role on the frontline of the COVID-19 pandemic, it is likely that nurses and other healthcare workers will be heavily impacted by the virus. Notably, AlAteeq et al. (2020) observe that several psychiatric symptoms become apparent during pandemics, particularly amongst healthcare providers. This hypothesis is confirmed by recent research. For example, a survey undertaken in China by Liu (2020) amongst 4,679 doctors and nurses from 348 hospitals in 31 provinces found that many healthcare workers were experiencing psychological distress as well as reporting symptoms of anxiety and depression. Similarly, whilst Jackson et al. (2020) point out that nurses are fighting COVID-19 calmly and professionally, they too are experiencing fear of the unknown and concern for how the pandemic may affect themselves, their family,

friends, colleagues, and patients. Nurses are usually drawn to the profession due to a desire to help people. However, there is a limit to what healthcare professionals can do for those with COVID-19, leading to the pandemic taking a physical and emotional toll (Jackson et al., 2020). The previous examples of the MERs and SARS pandemics suggest that nurses and other frontline health professionals are at risk of experiencing psychological symptoms as a result of the pandemic. As COVID-19 is more prevalent and has spread further than either of these two previous pandemics, the psychological impact of the pandemic is likely to be greater than anything that has come before it.

Additional pressure has been placed on nurses as a result of the COVID-19 pandemic due to an increased volume of work and the pressures of dealing with a 'new normal' (Maben and Bridges, 2020, p.2742). Since March 2020, nurses have had to facilitate consultations via video or telephone and provide higher levels of end-of-life care due to patients' health deteriorating more rapidly than they are used to. Furthermore, as family members are not allowed to visit patients diagnosed with COVID-19, nurses must take their place and organise remote access to loved ones. The impact of COVID-19 on medical staff has been investigated by Huang et al. (2020), who surveyed 230 medics in China who reported high levels of stress and anxiety, especially amongst female nurses. Similarly, Cheung et al. (2020) found that frontline nurses are particularly susceptible to burnout and fatigue. Therefore, Huang et al. (2020) recommend nurses receive psychological skills training and that more attention is paid to the mental health of female nurses. Notably, Liu et al. (2012) found that nurses who worked on the SARS frontline received support for mental health issues such as depression and post-traumatic stress disorder (PTSD) for several years after the pandemic ended.

It has been suggested that anxiety and stress levels of healthcare professionals are likely to be generally higher than that of the general population during the COVID-19 pandemic due to frequent direct contact with infected patients (Cheung et al., 2020). Having direct contact with COVID-19 patients is a concern for nurses due to anxiety over their health and the health of their families. However, they must balance these anxieties with their commitment to providing a duty of care (Maben and Bridges, 2020). Frontline nurses have also experienced additional stress during the pandemic due to stigma from the wider community as they are perceived to be a threat to others as their contact with COVID-19 patients may make others believe that they are carriers of the disease (Maben and Bridges, 2020). A similar finding was made by Almutairi et al. (2018), who found that healthcare providers in Saudi Arabia who had worked through the MERS epidemic experienced fear and anxiety over their health and that of their families whilst simultaneously experiencing social prejudice.

The primary objectives of this research are to: explore the experiences of staff nurses at the Hera General Hospital in Makkah City, Saudi Arabia when managing patients with COVID-19, to discover whether staff nurses' emotions concerning COVID-19 have changed over time, to assess the impact of COVID-19 on the mental health and well-being of staff nurses, to analyse the lived experiences of staff nurses dealing with COVID-19 and the impact on their family life and careers, and to discuss strategies to support healthcare workers working with patients with (or at risk of) COVID-19.

II. Methods

Research Design

This research utilises a qualitative research approach that has been applied using a phenomenological methodology. As such, the experiences of the nurses have been recounted on their terms, rather than being reduced to 'predefined or overly abstract categories' (Smith et al., 2009, p.1). Applying an interpretative phenomenological approach allows the researcher to take subjectivity into account. This means the study has been able to explore different realities as conveyed by the experiences of the participants (Reiners, 2012). This contrasts to the usual emphasis of an objective positivist approach as typically applied in the natural sciences. Therefore, the phenomenological approach used has allowed the researcher to attempt to understand and interpret the experiences and perspectives of the participants, rather than presenting a purely descriptive account. Furthermore, conducting qualitative research within a clinical setting helps the researcher to understand healthcare and illness from the perspective of the patient or the service user (Biggerstaff and Thompson, 2008).

Qualitative research in this context has meant that more in-depth level of knowledge has been gained than would be possible if a qualitative study had been conducted as participants' responses would have been constrained (Nevonen and Broberg, 2000). A qualitative approach has been useful for this research as it has facilitated gaining valuable insights through exploring the unique complexities of the impact of COVID-19 on the mental health and well-being of staff nurses. It is hoped that the results can be used to inform practice and ultimately support the mental health and well-being of nurses throughout the pandemic and afterwards. This approach is also suitable within a hospital setting, as the goal of qualitative research is to study phenomena in its natural setting to interpret or make sense of it and the meaning people bring to them (Creswell, 2014).

Study Subjects

Twenty nurses working at Hera General Hospital who have had direct contact with COVID-19 patients have been interviewed for this project. Purposive sampling was used to select the participants according to a specific set of inclusion and exclusion criteria. Purposive sampling is a non-random sampling technique that is often utilised in qualitative research as it allows the researcher to identify and approach informed participants to explore their experience and knowledge (Etikan et al., 2016). In addition, the participants must be available and willing to engage in the research and share their experience, perspectives, and opinions. Hence, the participants have been selected to participate in this research study based on the following inclusion and exclusion criteria:

Inclusion Criteria	Exclusion Criteria
Staff nurse working in the hot zone area with COVID-19 cases.	Staff nurses not working in the hot zone area.
English speaker	Non-English speakers
All nationalities and genders	Diagnosed with ongoing or severe mental illness
Aged 18 years and over	Intellectual impairment
	Able to give informed consent

Table 1: Inclusion and Exclusion Criteria.

Interview Outline

The interviews were undertaken using a semi-structured approach. This approach provides a firm yet flexible schedule that can be altered if participants offer additional information that is useful to the study (Cramb and Purcell, 2001). A guideline of eleven open-ended questions was put to participants. These were: (1) What has your experience of managing patients with COVID-19 been like? (2) How did you feel at the start of the pandemic? Has this changed over time? (3) On a practical level, how have you coped with nursing patients with COVID-19? (4) Have you had the virus or symptoms of the virus? If so, how did you feel about this? (5) Were you thinking about family members or loved ones whilst working at the hospital during the pandemic? (6) Where have you been living? Have you been isolated from a vulnerable family member such as children or the elderly? (7) What do you think the long-term impact of COVID-19 will be? (8) Has working in healthcare during the COVID-19 pandemic had an impact on your mental health and/or well-being? (9) Have you discovered any strategies to manage the psychological impact of working during a pandemic? (10) Do you have any career plans going forward that are different before the pandemic? (11) What support could/should the hospital or government provide to you and your colleagues?

These questions focus on the impact of COVID-19 on nursing practice as well as the psychological effect, and the impact the pandemic has had on nurses' well-being. Furthermore, the use of semi-structured interviews facilitated a flexible dialogue, and the questions were altered according to the participant's responses (Creswell et al 2007). In this way, new information about working in a COVID-19 environment has been uncovered.

Data Collection

Semi-structured interviews have been conducted with 20 staff nurses from Hera General Hospital to gain in-depth qualitative information on their experiences of COVID-19, both in relation to the workplace and their personal lives. Conducting semi-structured interviews has allowed the researcher to attain the in-depth perspectives of the nurse interviewees and has enabled relevant tangents to be explored.

Data Analysis

After transcribing the audio recordings of the interviews, thematic analysis was used to analyse the data. Thematic analysis is a method that can be applied to systematically identify, organise, and offer insights into patterns of meaning or themes across a set of data (Braun et al., 2012). By focusing on meaning across a set of data, the thematic analysis gives the researcher insight into collective or shared experiences and meanings (Braun et al., 2012). As recommended by Braun et al. (2012), a six-point approach to thematic analysis will be undertaken, which emphasises the importance of gaining familiarity with the data, identifying themes, and using these to analyse the data. This process will then allow for a thorough analysis of the qualitative data.

Ethical Review

Approval for conducting the study was obtained from the Ethics Committee of the Ministry of Health and Hera General Hospital, where the study was conducted. Participation was based on informed consent after providing participants with an information package that included a cover letter about the purpose of the study. This explained that the interviews would take around one hour and that they have the right to withdraw at any time without any negative consequences to themselves. Those who were interested in participating were contacted via email to arrange a day and time for the interview to be conducted. The participants were asked if they had any questions about the research process at the start of the interview and informed that it would be conducted in a private room in the hospital. The interviews were audio-recorded and transcribed, and each nurse

was given a pseudonym to ensure anonymity. The data has been stored on a password-protected computer and made available only to the researcher.

III. Results

The semi-structured interviews were conducted with 20 nurses (14 female and 6 male) working at Hera General Hospital as part of the frontline response to the COVID-19 pandemic. The interview findings identified four key themes, each of which are discussed below.

Theme 1: Concern for Family

Questions five and six specifically related to concerns participants may have had for family and friends during the COVID-19 pandemic. In response to question 5, which asked participants whether they were thinking about family members or loved ones during the pandemic, 99 per cent confirmed that family and loved ones were in their thoughts at this time. For example, one participant observed that: *'I'm afraid that I will give COVID-19 to my family, especially my kids,'* whilst another emphasised that: *'That is why I chose to live away from my family at this time: I couldn't forgive myself if any of my family got the virus and died.'*

Question 6 then asked participants where they had been living during the pandemic and also asked if they had to isolate away from vulnerable relations. The interviews found that 11 participants were able to live at home whilst working on the COVID-19 frontline, whilst 7 had to separate themselves from vulnerable relatives, and 2 were forced to live away from home due to having vulnerable family members. *'Because my elderly parents live with us, I had to live away from home for several months. That has been hard.'* Another said: *'I still live at home, but I can't get too close to my grandmother. She is elderly and it would be too dangerous—I find it really upsetting.'*

Theme 2: Personal Anxiety and Stress

Questions 2,3, 8, and 9 all explored various aspects of potential anxiety and stress experienced by frontline nurses as a result of the COVID-19 pandemic. Question 2 asked participants how they felt at the beginning of the COVID-19 pandemic and whether these feelings had changed over time. Fourteen study participants acknowledged that their feelings had changed over time. For example, one emphasised that: *'At the beginning of the pandemic I was optimistic, I thought it would be over in a month or two. But as it has gone on, I have become more anxious and depressed. I can't see when it will end.'* However, the other six participants indicated that they experienced anxiety and stress from the beginning of the pandemic. One observed that this was due to their experience of nursing during the MERS pandemic. *'I was a nurse during the MERS pandemic working on the frontline. This is the same but much worse. I've been having the same PTSD feelings again.'*

Question 3 asked participants to consider how they had coped with nursing COVID-19 patients on a practical level. Whilst 13 felt they had coped well, the other 7 struggled. Whilst one stated: *'I feel low, but I am coping.'* Another stated: *'Being away from friends and family and long shifts have taken their toll. I don't feel like myself anymore.'* Question 9 asked participants if they had any psychological strategies they used for managing the psychological impact of the COVID-19 pandemic. All had some suggestions. Examples include using relaxation techniques during time off, having frequent breaks, and seeking social support in friends, family, or colleagues. Question 8 then asked whether working in healthcare had negatively impacted on the nurses' well-being. Eighteen of the 20 participants acknowledged that their career had in some way negatively impacted on their well-being during the COVID-19 pandemic. Notably, one explained: *'Nursing is stressful at the best of times, in the worst of times it is difficult not to take work home and feel constantly depressed.'*

Theme 3: Impact of COVID-19

Questions 1,4,7, and 10 referred to the direct impact of COVID-19 on the interview participants. The first question asked participants about their experiences of nursing patients with COVID-19. Six participants indicated that their experiences were neutral, whilst 8 emphasised that nursing a patient with COVID-19 was no different to nursing any other patient. However, six participants found the experience of nursing patients with COVID-19 to be distressing. For example, one participant referred to the routine treatment of ventilating COVID-19 patients: *'It's hard seeing so many patients like that. It causes me a lot of anxiety.'*

Question 4 asked participants if they had been diagnosed with COVID-19 and how they felt about this. Seven stated that they had not had the virus, whilst 9 had tested positive for the virus but were asymptomatic. Four participants reported that they had been diagnosed with COVID-19 and experienced symptoms. According to one participant who had tested positive for COVID-19: *'The first time I was told I had tested positive for*

COVID-19 I experienced denial, but over the next few hours I accepted that I had the virus and that was okay.' However, another participant experienced more distress over testing positive for COVID-19: *'After isolating for 15 days I was afraid to come back to work and have contact with friends because I was afraid to get COVID-19 again. This is because I have a low immune system and was scared as to how my colleagues would treat me.'* This suggests that individual anxieties about health and how others might address the condition concerned the nurses interviewed.

Question 7 then explored the nurses' perceptions concerning the likely long-term impact of COVID-19. Most participants were unsure, but 2 suggested that PTSD was likely amongst survivors and those directly affected, and 3 felt that some kind of social distancing would be around for a long time to come: *'I feel that PTSD for both survivors and frontline workers is inevitable.'* Another observed that: *'I think social distancing is with us for the foreseeable future.'* Question 10 asked whether participants had changed their career plans as a result of the COVID-19 pandemic. 15 responded that their career plans remained unchanged, but 5 answered that they had. Three reported that they now wanted to quit nursing entirely, whilst 2 wanted to specialise in different fields of their profession: *'Nursing has become too much for me. I'm resigning as soon as this is over.'*

Theme 4: Need for Additional Psychological Support

Theme four is addressed via question 11, which asked participants what support the hospital or government could or should provide for nurses due to the COVID-19 pandemic. In response to this question, 12 participants suggested that ongoing psychological support should be provided for COVID-19 frontline nurses, 8 wanted practical support such as financial incentives, and 19 suggested that onsite psychological assistance or training should be provided: *'We really need long-term psychological support in and outside work during and after this. A lot of people are having a hard time coping.'*

IV. Discussion

The study found that most participants were personally affected by the COVID-19 pandemic due to personal anxiety and stress, direct contact with patients with COVID-19, and concerns about family members. This is unsurprising as Liu (2020) found that many healthcare professionals have experienced symptoms of anxiety and depression as well as psychological distress as a result of the pandemic. Also, Almutairi et al. (2012) observed that during the MERS pandemic, Saudi Arabian healthcare providers experienced fear and anxiety over their health and the health of family members. Furthermore, COVID-19 would inevitably have had a personal impact on the nurses working on the frontline at Hera General Hospital as the first medic to lose his life to coronavirus in Saudi Arabia, Dr Naeem Khalid Chaudhry, who died on 3 June 2020, worked as a surgeon at the hospital (Shabbir, 2020). The death of Dr Chaudhry suggests that it is inevitable that many of the participants would have a negative perception of COVID-19 and the consequences of the pandemic.

It is interesting to compare the results of this study to other research undertaken to assess the psychiatric impact of the COVID-19 pandemic on healthcare professionals operating in Saudi Arabia such as studies by AlAteeq et al. (2020) and Tayyib and Alsolami (2020) analysed the psychological impact of fear and stress during COVID-19 and levels of resilience amongst registered nurses (RNs) working on the COVID-19 frontline in Saudi Arabia. From the analysis of a sample of 314 RNs, the researchers found that RNs generally had high levels of anxiety and stress during the COVID-19 outbreak (Tayyib and Alsolami, 2020). This is because they were fearful about the safety and well-being of their families, but also felt responsible for providing care to COVID-19 patients (Tayyib and Alsolami, 2020). Furthermore, the researchers identified predictive factors that increased RNs levels of fear and stress. These were: social media, exposure to trauma prior to the outbreak, and readiness to care for affected patients (Tayyib and Alsolami, 2020). This study did not identify these predictive factors; however, it noted that fears for the safety and well-being of family members did contribute to depression, anxiety, and stress amongst nursing staff during the pandemic.

Cheng et al. (2020) found that frequent contact with COVID-19 patients likely to increase stress and anxiety levels, something the study also identified. Meanwhile, Master et al. (2020) found that greater levels of social support and other precautionary measures mitigated psychological distress amongst nurses working on the COVID-19 frontline. Huang et al. (2020) recommend more ongoing support for nurses on the COVID-19 frontline. Notably, the interviews suggest that social support and psychological support are desired and needed amongst the sample. Furthermore, Jackson et al. (2020) observe that concerns during COVID-19 represent fear for the unknown and this seems to be reflected in the participants answers to questions about the consequences of COVID-19 and treating patients with the virus.

Strengths

The study was able to explore many of the factors that might contribute to higher levels of stress, depression, and anxiety amongst nurses working on the COVID-19 frontline in Saudi Arabia. Furthermore, it was able to put forward some potential factors that might affect nurses in the aftermath of the pandemic.

Limitation

The study did not record the age of participants and the relationship between gender and depression, stress, and anxiety as a result of COVID-19 was not explored. It would have been useful as AlAteeq et al. (2020) found that age group and gender did have an impact of levels of anxiety and stress experienced by healthcare professionals operating in Saudi Arabia during the COVID-19 pandemic.

V. Conclusion

It is clear that nurses in Saudi Arabia working on the COVID-19 frontline need access to additional training and support for stress, anxiety, and depression experienced as a result of the psychological implications of nursing during a pandemic as recommended by Huang et al. (2020).

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