Research Article

Perception and Preparedness of Nurses of Yemen amid COVID-19 Pandemic: A Qualitative Survey

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Abstract

Nurses are at the frontline defense of health workers against the Covid-19 pandemic. The study explores the perception and preparedness of nurses in Yemen during Covid-19. A qualitative study was carried out among 14 nurses who were active during COVID-19 pandemic in the three main provinces in Yemen (Sana'a, Taiz, and Ibb) . The COVID-19 pandemic caused more stress and low self-esteem to the nurses.   The respondents were well aware of the COVID-19. Although they had inadequate health supplies, they demonstrated resilience and adaptability to overcome the resources shortage and kept complying with the guidelines laid forward by WHO. The study recommends to improve the healthcare support system in healthcare settings to tackle such pandemic.

Keywords: Covid-19, Practice , Knowledge, Management, Yemen

INTRODUCTION

Since 2019, COVID-19 is one of the most serious global public health concerns. COVID-19 was first reported in December 2019 in Wuhan which later on was declared by WHO as a pandemic disease on March 11, 2020 [1]. Preparedness for the COVID-19 pandemic is crucial to limit the disease spread especially in low-resource countries [2].

Overall, the healthcare system in Yemen was seriously disturbed leading to a shortage of medical equipment, inadequate healthcare workers (HCWs), and healthcare facilities [4, 5]. Yemen is a war-torn country with poor healthcare facilities as a consequence COVID-19 was a huge challenge and caused destructive damage to the healthcare system and healthcare workers [3]. As a consequence of a decade-long conflict and war, only 51% of healthcare facilities are in complete operation [6].

Moreover, in Yemen, only 10 HCWs per 10000 people, which is less than half the WHO benchmark (> 22 HCWs per 10000 people) are in current practice. 38% of hospitals have no medical specialists and there are no doctors in 18% of districts [7].

Yemeni HCWs had a challenging role in combating such a disaster in Yemen with inadequate resources. Nurses are considered the largest cadre of HCWs around the world and served effectively in response to the COVID-19 pandemic [8]. Globally, many studies have been conducted to evaluate the perception and preparedness of HCWs [9, 10]. However, only limited research was carried out in Yemen. This qualitative study is the first of its kind done in Yemen to evaluate the perception and preparedness of Nurses in low-resource countries like Yemen to contain such a global threat.

METHODS

Study design and setting

A qualitative approach was utilized to collect the data from June 2021 to September. The study was conducted in Sana'a, Taiz, and IBB. The study was conducted on 14 nurses working in Government Hospitals in three provinces in Yemen.

Ethical Consideration

This study is approved by the ethical approval committee of University of Science and Technology – Aden – Yemen number MEC /AD024.

Development of the interview guide

A semi-structured interview guide based in depth of the literature was developed. The guide was designed in a way to explore the perception and preparedness of nurses during COVID-19. It was validated by an experienced academician and researcher at the University of the Punjab, Pakistan.

Sampling and data collection

Informed consent was taken to conduct the study from participants prior to conducting the interview. An explanatory statement detailing the purpose of the study was given to each nurse. The interview was conducted by one of the co-authors of this study who has been trained in conducting qualitative interviews. The interview was conducted at the workplace of the participants.

The interview was conducted in English and Arabic language according to the feasibility of the participants. The timing of the interview was between 20 to 30 min.

Appropriate probing questions were asked to seek the required information. The interviews were audio recorded and transcribed verbatim by the researchers. The transcript was analyzed manually line by line by the researcher for relevant themes and content. Moreover, the researchers made the coding to ensure the privacy of the study

Thematic analysis

The thematic content analysis (TCA) of the interview resulted in four major themes. The resulted themes were:

- COVID-19 knowledge
- Preparedness for safety against COVID-19
- Practice of COVID-19
- Psychological aspect of COVID-19.

THEME 1: COVID-19 knowledge

The respondents were asked about COVID-19 familiarly during the interview. The respondents were asked about what they know about COVID-19.

"Aa! COVID-19 is a viral disease that appeared in the Chinese city of Wuhan in 2019 and spread Aa! around the world and its symptoms are dyspnea, Aa! hypoxia, loss of smell, and test and Aa! dry cough" (HCW-12)

The respondents were probed regarding transmission and management of COVID-19, which showed that nurses are well-known regarding the transmission of COVID-19.

"It's transmitted by air، droplet and from affected person to another during coughing، sneezing and speaking. Also, through the infected person's tools in the environment, also by direct contact with infected person" (HCW-5)

"Almost till now not any specific drugs are there for COVID-19, but only supportive drugs such a azithromycin which is used um! as an antibiotic for the infection of the respiratory system, Vitamin C, Vitamin D3, Zinc, Steroid drugs like Hydrocortisone and Dexamethasone, and Aspirin are often being used. There are newly manufactured vaccines as well" (HCW-12).

THEME-2: Preparedness for safety against COVID-19

The majority of nurses are complying with the rules of COVID-19 despite the poor facilities and lack of equipment.

"Aa! Before COVID-19, we always went to the market and restaurants, now it's rare. No! these days we wear masks and gloves and use hand sanitizer. There is some shortage of enough measures in the area of residing" (HCW-10).

The majority of respondents were not willing to take the vaccine meanwhile some were willing to get it,

"Not willing to get vaccinated, because I don't believe in it" (HCW-7)

"Not willing to get vaccinated because the experiments are not enough to prove the effectiveness of the treatment and its harm" (HCW-13)

"Yes, because I am a nurse exposed to the epidemic of infected patients" (HCW-5)

"Yes, because there are no control measures in Yemen" (HCW-7)

The majority of nurses thought that they were at risk of infection during their work at hospital.

"Yes, because I am a nurse exposed to the epidemic of infected patients" (HCW-5)

"Yeah! We have to take the protection because the medical staff has more chance to get affected because they are connected with a patient so usually the health workers are in danger." (HCW-9)

THEME-3: Practice of COVID-19

Preventive measurement of COVID-19

As nurses are the frontline to fight the COVID-19 pandemic, the preventive measures are the most and the majority of the nurses were positively attached to the preventive measures.

"Hand washing with soap and water, wearing the mask, wearing gloves, avoiding hugging and handshaking, Aa! not touching the face or nose by unclean hand, avoiding Aa! infected surface" (HCW-14).

"Wearing masks and gloves and not going to the restaurants and shopping, avoiding crowded places, hand washing with sanitizer, wearing masks, avoiding hugging and shaking hands, and avoiding touching the face" (HCW-4)

Preparedness of COVID-19

Due to the lack of equipment and not taking the pandemic seriously, most nurses did not adhere to the preparedness for COVID-19

"Not well, self-prepared preventive measurement,s because I do not fully adhere to the standards that are constantly recommended. Not taking it carefully" (HCW-12)

"Not prepared for preventive measurements due to the lack of adequate preventive supplies" (HCW-3)

Patient management

"Aa! doing a necessary investigation as throat swab, Aa! PCR testing, CRP for inflammation and Aa! chest X-ray, also CT-Scan" (HCW-3)

"We check the temperature if there is a fever and do investigation like CPR" (HCW-7).

Self-management

"Um! I will confirm that through tests, and during that period I will be isolated from others and I will adhere to what the doctor says, as well as I will take immune supplements and treatments and take foods and fruits. Um! firstly I will isolate myself from others Aa! take drugs and contact with others by Aa! social media for psychological support only" (HCW-12)

"I make sure of the tests that it is COVID-19 and then take the appropriate treatment. I isolate myself, take Aa! medical advice, take treatment and improve the psychological aspect" (HCW-13).

THEME- 4: Psychological aspects of COVID-19

Lockdown effect

Most nurses thought that the lockdown was effective in reducing the spread of COVID-19 pandemic.

"Yes, it's effective. Aa! by wearing mask and gloves, Aa! making a distance between me and the person in front of me, minimizing going out from home, maintaining the personal hygiene, and cleaning inside and outside of the house" (HCW-11).

Will-power (self-esteem)

Nurses thought that the COVID-19 pandemic caused low self-esteem and that the community nowadays is more well aware of the risks of the pandemic.

"Oh yeah! By taking precautions, in the early days, the community made a mockery of my appearance, Aa! But now I think the community is well aware of this disease "(HCW-14).

"Because of Aa! COVID-19 pandemic, self-esteem was lowered" (HCW-11).

Stress

Nurses were aware of how dangerous was the disease.

"Yes, scared, because it is a deadly virus and there isn't a treatment or vaccine until now, and there are no guarantees to prevent infection. In residence, to enjoy, I watch TV and do house chores" (HCW-11).

Some of the participants reported that they fight the psychological effects as they are well aware of the mental stress related to health.

"Not scared, because the psychological factor plays a major role Aa! in surviving the disease. Living inside the residence was not enjoyable because I was getting used to work and working outside the home was more fun for me than staying at home. Feeling accomplished is an important thing for me, improved quality of life Aa! by self-development and diversification of experiences" (HCW-13).

DISCUSSION

Although there were inadequate facilities and preparedness, nurses served effectively in response to the COVID-19 pandemic, and the majority of the HCWs were nurses in Yemen to combat such a disaster [11, 12]. Due to the spread of irrational information about COVID-19 in social media as well as lack of scientific information about care and treatment of COVID-19 procedures in Yemen led to an increase in the risk of virus transmission among communities, but the nurses services remained at nearly the same level[13].

Though our respondents had a fair knowledge of COVID-19 and management approaches, all of them stated that no specific medication for COVID-19, and only a supportive medication is being used such as steroids, antibiotics, as well as immune boosters such as vitamin C, zinc, and B complex. This shows a well-known knowledge of management approaches of nurses. However, they were not satisfied with the management system which is in line with a similar research study of field epidemiology training program (FETP) in three countries, Jordan, Sudan, and Yemen conducted by Mohannad Al Nsour1 in March 2020 [14].

All the respondents agreed that there was adequate supply of medicines and related items and health facilities to take care of patients which is similar to previous studies in Yemen conducted by Ghulam

Dhabaan in 2020[15]. This study showed that nurses are trying their best to compelling with the preventive measures.

The study shows a significant variation in the nurse's responses to vaccines, but the hesitancy range was within the vaccination hesitancy worldwide, the hesitation reasons were the speed development of the vaccine and the insufficient knowledge of the vaccines. Thereby the study similarities to the study conducted by Nirbachita Biswas in 2020[16].

The nurses believed that they were at risk of getting infected which is similar to qualitative studies in Wuhan [17] therefore, they all took measurements to protect themselves and their families. Regarding preparedness for COVID-19, nurses are not fully trained and prepared to fight covid-19 due to the lack of adequate prevention supplies which contradicts studies in occupied Palestinian Territory conducted by Ramzi Shawahna in October 2020 [18].

On a psychological aspect, nurses support the lockdown to prevent the spread of the pandemic although they stated that the lockdown is not fully followed by the public as mentioned in previous studies at Yemen conducted in 2020 by Devi, Sharmila in Yemen [19].

Nurses stated that they had psychological responses such as low self-esteem and stress. In this study majority of nurses experienced low self-esteem due to the lockdown and the pandemic similar previous study in Yemen was conducted by NMA Mahmood in December 2021 [20].

CONCLUSION

Nurses are the frontline healthcare workers in disasters like the COVID-19 pandemic. They worked wholeheartedly to fight against such a pandemic even though in a situation of inadequate healthcare resources and facilities. Due to the limited facility, despite the proper knowledge about COVID-19 management, the health care and practice were not up to standard to tackle such a pandemic. Therefore, the provision of healthcare equipment, training, and media awareness are recommended to contain such disasters.

Disclaimer

The article has not been previously presented or published, and is not part of a thesis project.

Conflict of Interest

There are no financial, personal, or professional conflicts of interest to declare.

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