



Nurses Experiences and Challenges during COVID 19: Mixed Method Approach

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the manuscript.

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ABSTRACT

Background: World health organization announced COVID-19 as a pandemic crisis in march 2020. As of WHO statistics 2020 September, the incidence appears to be accelerating globally, with the soaring of new cases since the last one week. Even though worldwide incidence and further deaths have decreased in recent weeks across a few nations, the panic situation has caused unprecedented stress among frontline healthcare workers. Nurses fall into the category of full-blown anxiety responses syndrome to undergo burnout post-traumatic stress disorder.

Purpose: This research aimed to explore the perceptions of frontline healthcare workers (Nurses) and their opinion about healthcare resources while caring for COVID-19 patients.

Methodology: The study adopted a mixed-method where the quantitative data collected using a google document questionnaire related to healthcare resources followed by a qualitative method of online individual interview method to explore the in-depth analysis of nurses' perceptions of caring for coronaviruses infected patients.

Results: The results revealed the nurses' concerns about the everyday routine of delivering care to COVID-19 patients, including a moderate level of resilience in healthcare resources authorities.

The barriers faced by nurses in the journey of a pandemic crisis were also discussed in this study that could also render substantial support in establishing policies and guidelines to meet the needed population's healthcare needs.

Conclusions: Health care workers, including nurses, tend to experience work-related stress that could be alleviated by the appropriate staffing, equipment and supplies, training programs, and staff welfare programs.

Keywords: Awareness; mental stress; anxiety; nurses' perception; barriers in healthcare services.

1. INTRODUCTION

The current decade global hit pandemic COVID-19 crises affected all nations of all races and socioeconomic categories. COVID-19 virus is a novel virus that originated in 2019 in China. The health sector worldwide, as a team and as a unique contributor, put tremendous effort to protect all human lives [1]. Even though frontline health professionals strictly follow recommended institutional policies and personal protective equipment (PPE), they are more likely to develop coronaviruses' disease. Besides physical, psychosocial threats, social stigma, and challenges predominantly vary across different countries. Also, there are numerous barriers to their journey while rendering healthcare services [2]. Amid COVID-19, the ideological policy of preserving the quality and the efficiency of operations are the costing payers that would be the most outstanding deal for every nation. Although the quality development strategies amended by the corporates, health professionals continue experiencing several aspects of threats that endanger their career growth, and indeed it has a considerable impact on their personal, professional lives [3].

Nevertheless, a deep potential chasm is generated when it is attempted to correlate the health institution's management system with the frontline workers in valuing patient satisfaction. The Healthcare emergency study of Rezenblem et al. discussed the health sector's failure in establishing the firm grounds of the structured protocol, which is mandatory for surveillance and infection control measures. Participants conveyed several challenges and concerns with the rationale that emerged from safety measures, risks of infection transmission, PPE, administrative training and management practices, and protocols. However, it does not apply to all the institutions; practical barriers of population and workers' shortage of health workers contribute to such drawbacks [4]. A recent survey of Ramazi et al. implemented a survey questionnaire to explore 260 healthcare

workers' dominant themes of attitude, experiences, and fears in Italy, which found the correlation between personal and environmental variables and the effect of quality of HCWs' professional life, including burnout syndromes [5].

Finally, when addressing the disease-related stigma to manage the pandemic cases, it is mandatory to remind us about nurses' resilience, organizational trust, and coordination of the team are the most necessary paradigms for effectively implementing the policies and procedures to cope with the crisis. Meanwhile, health professionals are the ones who can manage health emergency disaster risks to prepare appropriately, measure the phenomena, and implement the platforms of getting productive outcomes [6]. Furthermore, the risky, chaotic environment can only be handled by HCW. Meanwhile, the proudful moment to think about nurses is that they historically possess altruism, skills, and dedication to utilize the available resources [7]. The researchers wanted to identify how they perceive the support received from their authorities. Therefore, it is imperative to analyze nurses' in-depth perceptions to understand the substantial factors that might influence the workforce's capabilities concerning opinion, experiences, and barriers experienced during the current complex crises.

2. METHODS

We adopted a mixed-method approach. The volunteer nurses working at the rural hospital of a developing nation were recruited in this study to understand their experiences during a pandemic situation. Volunteers were concerned as a primary source of sharing their everyday challenges as global data extrapolates the reliable information about burnout that warrants researchers' attention. This project was implemented with the sequential quantitative (google document developed questionnaire) and qualitative online individual interview method. The piloted survey questionnaire using a google

document was submitted through what's app with the prior consent obtained from the volunteers to fill it up. An online interview's qualitative design was followed by google duo call as a virtual session to answer the basic questions. The current project included 128 nurses working at the Covid-19 unit aged between 27 years and 57 years.

According to the nurses' convenience, the discussions were held individually until data saturation. Based on the questions and the way in line with the flow of conversation utilized by the researchers, nurses could contribute their in-depth experiences, challenges, and barriers at the time of stressful situations [8]. The final call was made as a group call to investigate further to fill the gap in collecting saturated data. Each online session was for 30 to 45 minutes; it also helped the nurses to interact with the team, which supported the investigator to organize the interview smoothly. The literature from various sources determined the data analysis of the questions posed to the participants. The core concept immersed in the question was how the nurses felt while caring for patients of COVID-19 along with their self-management of dealing with friends, family, and what were their barriers in rendering quality care to patients. The gathered pieces of information transcribed under major themes as Anxiety, Family relationship, Policymakers, and recommendations to support nurses.

3. RESULTS

A total of 128 nurses with different positions were recruited in this study. Female nurses constituted 61.71% (n=128) of the sample, with the male nurses comprised the rest with 28.29%. Intensive care unit nurses constituted 45 (35.15), Infectious unit nurses 32 (25), followed by emergency nurses of 28 (21.87), and general unit nurses 23 (17.96).

The majority of the participants, 78 (60.9%), agree that the organization can tackle the outbreak, whereas 35 (27.3%) shown disagreement. Three-fourths of the Nurses 87(67.96), perceived that the authorities looked at the panic situation seriously, while only 30 (23.43) disagreed with it. Fifty percent of the sample accepts that the health care institutions' decision is appropriate and opts promptly. More than three-fourths (69.5%) of the sample agreed that the institutions coordinate with all sectors in the decision-making process, and less than a quarter did not agree. The majority of the nurses,

66.4%, have expressed that the policies and procedures are being implemented explicitly.

3.1 Stress and Anxiety

Collected data revealed that the participants witnessed significant distress and anxiety due to physical and psychological causes related to Covid-19.

3.1.1 Bad feeling of the unknown

When Patients with dyspnea with comorbid illness experience sufferings, they feel helpless, impacting nurses' spirit in losing hope. Nurses had mentioned that "Infected people's demise at their unit was excruciating for them." The identified causes for nurses' anxiety are "getting infected from the work environment through the organization's functional systems, spreading the virus to family and friends, and even patients."

"Despite we, as nurses and as a frontline employee, there might be the possibility of indwelling with the feeling that the inability to access the appropriate facilities to meet personal and social requirements during the lockdown."

3.1.2 Severity of illness: Arrival of the code blue team

Cardio-respiratory arrest is an unexpected critical concern for COVID-19 patients. "Despite the strict adherence to the hospital policies, procedures, and protocols, the risk factors of comorbidity still increase the mortality rate."

"We remember Nightingale's version of delivering comprehensive, holistic, and empathetic care, but the moment we hear alarms from Code blue and the types of machinery, we are more likely to lose self-confidence towards optimistic care; subsequently, we physically and mentally impacted lot."

"Amid we take meticulous care about our safety; instead, fear that we could get infected by the possibilities of getting infected from various causes, including nosocomial infection, then we might lose our lives."

Nurses made to keep themselves isolated from their families after their scheduled duty hours. While returning to the family after self-quarantine, they are more likely to develop psychosocial distress that leads to depression. Besides, the fear of infecting their family members, particularly to older people, makes them deprived of resuming to work during the following week.

3.2 Comorbid Diseases

Globally, Sudden death happens for the patients infected with coronaviruses, primarily due to cardiorespiratory arrest, where nurses undergo panic and get immersed with deteriorated mental health.

3.2.1 Poor mental health outcome

The nurses expressed mixed emotions such as altruism, humanitarian approach, togetherness besides the mental battle, they are willing to serve the community. The ancient history of a pandemic outbreak and authenticating nurses' real value; however, one participant expressed, "extreme level of mental depression because we

happen to travel this pandemic work journey with the bitter and sad sense of mixed experiences." Another nurse stated that we are the challenging warriors to protect and save our people; also, we tend to embrace them as our family members; however, we are more likely to develop mental burnout". Apart from patients, Many nurses died having been battled with the severity and its associated comorbid illness. "Losing family members, friends, and patients' community enhanced confusion and caused health workers to undergo devastating situations".

"While witnessing the patients who suffer from chronic fatigue, difficulty in breathing, memory impairment, and loneliness". "We feel the barriers

Table 1. Participants' distributions

Gender	frequency	Education	Experience	Unit	Designation
Female	13	Diploma	12	ICU	Nurse
Female	8	Diploma	4	Emergency	Nurse
Female	8	Diploma	5	Infectious	Head Nurse
Male	8	Bachelor	15	ICU	Nurse
Female	12	Diploma	18	Emergency	Nurse
Male	12	Bachelor	5	ICU	Nurse Superintendent
Male	12	Bachelor	7	General	Nurse
Male	5	Diploma	4	General	Nurse
Female	14	Master	8	Infectious	Head Nurse Incharge
Female	8	Master	10	Emergency	Nurse
Female	6	Diploma	25	ICU	Nurse
Male	6	Master	9	General	Nurse
Male	6	Master	2	ICU	Nurse
Female	10	Bachelor	22	Infectious	Nurse

Table 2. Nurses perception about healthcare resources

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Deal and manage of this outbreak COVID-19	20 (15.6)	58 (45.3)	15 (11.7)	10 (7.8)	25 (19.5)
Consider this outbreak of coronavirus seriously	39 (30.5)	48 (37.5)	11 (8.6)	9 (7)	21 (16.4)
Takes proper decision at the right time	24 (18.8)	40 (31.3)	21 (16.4)	12 (9.4)	31 (24.2)
Involve in sectoral/regional/district authorities to combat the COVID-19 outbreak	26 (20.3)	63 (49.2)	19 (14.8)	3 (2.3)	17 (13.3)
Implement policy and action plan is more supportive in combating with COVID-19	26 (20.3)	59 (46.1)	16 (12.5)	5 (3.9)	22 (17.2)

in providing the effective communications and rendering psychological support to the patients admitted with COVID-19". "At this moment, we tend to experience that we are hopeless and feel all nursing theories of caring nature is on a thread."

3.3 Barriers: Delivering Quality Care

Health care professionals' challenges have enormous turmoil where the critical concerns of workload and personal protective equipment mitigate the nurses' actual and potential burnout syndrome. Mounting studies discuss that corona viruses spread by contact and droplet infections and airborne diseases. Nevertheless, researchers also discussed determining factors of hospital employees' comprehensive healthcare issues, healthcare professionals' welfare, and supportive measures to diagnose and implement preventive strategies.

3.3.1 Hospital supplies and lack of public support

There are a couple of issues nurses are more concerned about, firstly PPE and the second one but the most significant consideration that needs to be focused on is public attention towards following preventive strategies.

"We are made to work 24 hours wearing all PPE with scars on faces, discomforts in wearing it, and worried a lot about it, wonder that will it protect us from being contracted".

"Public has poor knowledge about the benefits of social isolation and PPE; they share in media, they are aware but do not follow, I see many people, my neighbors, in the shops without wearing a mask."

Another nurse said, "when people do not follow, it not only causes them to fall ill but also transforms them into passive carriers in the transmission of viruses."

4. DISCUSSION

The quantitative research explored the nurses' perception of governance and their support in caring for COVID-19 patients. The report documented that the nurses receive incredible support, and the majority of them were confident 78 (60.9%) that the authorities tackle the situation excellently. The reported scenario allies with the study performed among health care

workers by Rozenblum R et al. [4]. The rest of the items concerning the organization's nature in rendering support were also positive with the strongly agreed and agreed statement perceived by the nurses (63.46%) of more than two-thirds. The qualitative data showed that nurses underwent many experiences, challenges, and barriers in delivering nursing care to the needy people of infected COVID-19. There three primary themes were generated, and from the data, subthemes were derived in each of them to categorize similar concepts. Amid positive and negative perceptions, nurses felt that this moment is an excellent opportunity to reveal the nurses' tendency to deliver altruistic care, and also it reminds us no person is above another under race or ethnicity below to anybody.

In line with our study results, multiple studies indicated the correlation between physical and psychosocial distress, stress, and anxiety with human resources, allocation of resources, and employee welfare [9,10,11]. On the contrary, a study by Hu D et al. documented that though frontline workers experienced depression, they volunteered to execute health services even though they had moderated burnout levels and a high anxiety level. Moreover, frontline nurses were the epic of the warriors of the pandemic situation without impacting their mental health wellness aspects [12]. Our study participants have undergone a high level of mental distress in terms of the coronaviruses' unknown nature, daily exposure to code blue situations with all monitors, comorbid disease-associated panic crises, negative consequences of mental health, barriers in availing PPE, and stress of poor public support. A similar study by Lai et al. extrapolated their findings that the health professionals experienced a loss of sleep, heavy workload in terms of duty hours in every shift, and fear while battling with caring of patients with COVID-19 [13]. The thematic analysis depicted that the principal reason for the mental depression was seeing the patients seriously ill with comorbid illness and how fast the patient progress into cardio-respiratory arrest with the life-threatening incident.

We found that staff nurses' significant fear was due to insufficient PPE; a similar report has been observed globally, as of german healthcare system more than a quarter percentage expressed their concerns on a shortage of consumables at their organizations [14]. Importantly our participant's Nurses as a respondent of this study stated that they were

Table 3. Themes and sub-themes of nurses perception

Themes	Sub-Themes
Stress and Anxiety	Bad feeling of the Unknown Severity of illness: Arrival of the Code blue Team
Comorbid diseases Barriers: Delivering quality care	Poor mental health outcome Hospital supplies and lack of public support Duty Exhaustion

more desperate to use the available resources as the supplies were not allowed to utilize it because they instructed them to use it only at an emergency. Mental stress and burnout at this moment enhanced their psychological burden accounted for severe depression.

Nurses faced challenges in undergoing training simultaneously while caring for COVID-19 patients as a pandemic requires nurses to acquire more knowledge and skills concerning various dimensions of diagnosis, treatment, and preventing the patients from complications. Therefore nurses felt restricted mobility of wearing all protective clothing, and the exhausting work schedule would cause negligence and errors while delivering care. However, they prioritized day-off, compensation pay, fewer working hours, and no monetary benefits. Regarding physical restrictions and principles in wearing PPT, they ventilated their significant concerns that they do not even have time to use the washroom; hence they are more likely to develop dehydration that might alter their physiological body functions.

According to the study report worldwide, a few studies here to mention; china reported among three thousand employees of an organization, twenty-two of them died after getting infected with coronaviruses. Subsequently, few nurses' family members have been contracted the viruses. Research shreds of evidence found that the primary factor associated with infecting family, friends, and colleagues is lack of quarantine to separate them with a sufficient number of days after COVID-19 duty [15]. Interesting to highlight in our study, though the health institutions did not provide them the facilities to quarantine nurses arranged their residence adjacent to the hospital, they were well prepared to avoid infecting others.

Most importantly, counseling carries an effective mentoring strategy to relieve psychological distress among healthcare professionals, particularly in a crisis in any setting [16].

5. CONCLUSION

The study revealed the comprehensive, in-depth feelings of nurses during their experiences and barriers they perceived at the COVID-19 unit and demonstrated their challenges as verbatim in the healthcare delivery system. The adverse outcome of patient care delivery enclosed poor mental health, physical and mental illness, anxiety, stress, and fear that could impact delivering efficient care. The well-proven statement that nurses deem to hail with depression fall on various dimensions such as patients' comorbid illness, institutional support with supplies and equipment, adequate training, appropriate safety measures that require physical and psychological comfort, and counseling. It recommends the budget allocation for the frontline healthcare workers during a crisis that can revamp the staff welfare support services at any healthcare institution. These results provide an exciting key for nurses to get rid of their burnout syndrome.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard, written approval of Ethics committee has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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