RESEARCH ARTICLE

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The Experience of Primary Healthcare Nurses during the COVID-19 Pandemic in Lebanon

Oussama Zahwe, Ali Farhat, and Mahdi Karawni

ABSTRACT

The 2019 coronavirus outbreak was a worldwide event, and nurses had little time to prepare before being flooded with high-acuity patients and navigating new care plans. Nurses working in primary care at Tyre Hospitals and Medical Centers were invited to take part in an extremely cross-sectional online survey via social media and professional organizations. The survey tool was composed of demographic, and questions on the nurses' employment and work roles. A total of 196 participated in the study. Nearly half of respondents (n = 88; 44.9%) reported either increased hours of employment, threatened termination, or actual termination of employment. Just over half of respondents (59.7%) feel well supported in their clinical role by their employer. While most respondents felt that they had sufficient knowledge about COVID-19, they expressed worry about work-related risks to themselves and their family members. 65.8% of respondents perceived that the support provided in their workplace was better than before the pandemic. The present paper represents the first study of primary healthcare nurses' experiences during the COVID-19 pandemic in Lebanon. The study findings revealed a concerning level of support for primary healthcare nursing employment based on the number of participants.

Keywords: COVID-19, Data Analysis, Lebanon, Nursing, Primary Healthcare.

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I. INTRODUCTION

The novel disease coronavirus (COVID-19) virus was identified in Wuhan city, China, in 2019, and after three months, the virus spread outside Wuhan city to different Chinese provinces and around the world. The World Health Organization (WHO) declared that the novel disease coronavirus (COVID-19) was a global pandemic in 2020.

There was a significant increase in human loss accompanied by lockdown, travel restrictions, and economic disruption. These factors resulted in considerable global stress among the worlds. According to the emergence worldwide, the spreading of the virus caused many infections and deaths, which required high availability and continuous demand of health professionals and workers. As a result of the high demand in the hospitals, the health workers and professionals were overwhelmed and always concerned about the risk of COVID-19 to themselves and their families, which caused a healthcare disruption.

Nursing is one of the most crucial and essential roles in supporting services and increasing healthcare quality. According to the WHO statics, nurses constitute the largest occupation and 59% of all health workers. Also, the Nursing profession is considered one of the most caring practices in the healthcare sector as nurses are the most in contact with patients to deliver the highest standards of care. The strength of nurses depends on caring as Watson's Theory states "humans cannot be treated as objects and humans cannot be separated from self, other, nature, and the larger workforce" (Watson, 1997, p. 50).

However, the professional quality of life (QoL) is the negative and positive feeling that contributes to supporting and helping others. For nurses, it was a significant challenge during the Coronavirus outbreak holding persistent stress, fear, anxiety, and anger due to the high risk of contingency, transmitting and getting infected by the virus, occupational hazard, depression, and stress.

Among medical workers, nurses were exposed to high risk of contingency, occupational hazard, depression, fear, and persistent stress, as they were continuously contacting with COVID-19 patients from admission to discharge and they had a tremendous workload with long hours. (Bowling *et al.*, 2017) Lebanon reported the first COVID-19 case in March 2020; at that time, Lebanon already implemented the early restrictions and imposed an immediate lockdown, suspending travel, schools, and businesses to forestall the transmission of the infection. Lebanese healthcare centers were prepared to provide immediate diagnosis and treatments for COVID-19 patients at any time. Due to this, healthcare and medical workers such as professionals, doctors, and nurses were at the front line of this outbreak and adopted immediate protocols, guidelines, and organizational changes. Thus, a significant increase in work duties, and a high workload with long hours, caused mental and physical effects.

This study could provide health management and authorities with appropriate decision-making and support for consistent nursing service during pandemic outbreak management and, hence, high-quality healthcare and delivery.

II. Literature Review

It is critical to consider the influence of coronavirus on fundamental care workers in order to ensure keeping talented employees and maintaining a standard of service. To ease the burden on medical care and prevent additional morbidity, it is vital to guarantee that the population stays healthy, and that supported uptake is validated throughout each stage of the journey.

Viral epidemics and pandemics were common throughout the last three hundred years (Balicer *et al.*, 2006). Within the past 20 years, novel viral agents related to Middle East Respiratory Syndrome (MERS), Severe Acute Respiratory Syndrome (SARS), and Influenza A virus subtype (H1N1) epidemic shaves also highlighted the challenges facing the healthcare sector to react to the overwhelming illness and death rates (Koh *et al.*, 2012). The WHO declared the current coronavirus breakout a worldwide pandemic on 11/3/2020. This caused a widespread alarm about the intensity, transmission, and socioeconomic damage the virus may hold. Countries were then believed to need to take quick measures to stop the virus from spreading (WHO, 2020).

As mentioned by the WHO in 2020, an international focus has been offered to health care responses to the disease outbreak. As well as on the capabilities of primary care to satisfy the needs of coronavirus patients (Wassens *et al.*, 2020). This involves the effect on medical personnel who care for the unwell (Chung *et al.*, 2005; Fernandez *et al.*, 2020) (Madhav *et al.*, 2017). Minimal consideration has centered on health workers beyond primary care. Nurses operating in primary healthcare (PHC) beyond the clinical milieu have a marginally different duty across the world. Nurses may have relatively independent responsibilities in certain regions. Others operate as part of a multifunctional unit. Other nurses work under the supervision of clinical specialists. PHC experts, on the other hand, are critical in different domains like identifying emerging cases. They also help manage those at threat. As well as lowering indirect fatality caused by community health care disturbances (Shaw *et al.*, 2006). As said by Shaw in his 2006 study, they also have a key role in public engagement, social reaction management, and emotional effects of coronavirus

During the pandemic, Lebanon took many precautionary measures to manage the infection's transmission, such as: In addition to free treatment for all citizens and residents, the country has set up health centers, so-called fever clinics, in all cities and provinces only accept patients with symptoms of COVID19 (Ministry of Public Health, 2020; Adly *et al.*, 2020; Ortega-Galán *et al.*, 2020). All of these efforts could be seen as one of the reasons for the increased pressure on the health system, which can lead to further increases in the stress levels of health workers. A few studies talked about the experience of caregivers throughout the transmission of respiratory disease outbreaks (Koh *et al.*, 2012; Lam & Hung, 2013). A current comprehensive study stated that the majority of research focuses on nurses working in primary care. (Fernandez *et al.,* 2020). However, it is important to have a better understanding of the experiences and encounters of public healthcare nurses to guarantee that appropriate assistance is given. This helps enhance staff durability and quality care at a period when care requirements are being fulfilled. For Antiphospholipid syndrome (APS) nursing care provided amid the present outbreak for further intentions, reliable information on the current experience of the APS nursing staff is critical, which is why an inquiry for APS nurses was conducted to assess their experience with the COVID-19 pandemic investigate. The results provide political decision-makers with reliable data to make urgent decisions now and in the future with regard to the protection, promotion, and sustainability of the workforce.

After reviewing the literature concerning the impact of COVID-19 on the performance and experience of healthcare providers around the world. found that the quality of life for the healthcare provider was limited. Therefore, the next section will provide the method applied in order to answer the research questions.

III. Methodology

In this section, the researcher will illustrate the method applied in order to answer his research questions.

A. Design and Sample

This was a cross-sectional survey online on google forms. The survey tool developed by the researcher collected information about the personal and professional experiences of the respondents since the beginning of the COVID-19 pandemic. The survey items included multiple-choice items and short answers examining demographics, employment conditions, provision of up-to-date services, and knowledge.

B. Data Collection

Individuals have been eligible to take part in the event if they have been baccalaureate-organized licensed nurses, diploma-organized nurses, or even master's-organized nurse practitioners in Lebanese Hospitals and Medical Centers. Due to the lack of a country-wide sign-in of those nurses, recruitment turned into undertaken thru social media. Information approximately the observation and a digital hyperlink to the survey turned into circulated thru social media (Halcomb *et al.,* 2014). The questionnaire was developed for this study and was informed by systematic reviews of trials that enhance nurses' workforce environment.

C. Data Analysis

The accuracy and dependability of the survey have been evaluated, and items of the questionnaire were assessed for their appropriateness to the Lebanese culture and ethical attitudes of the community. Finally, the questionnaire was distributed to the target sample in Tyr city. The quantitative data will be extracted from the provided questionnaire. The process of analysis will be through different stages that include time series analysis and multiple regressions using SPSS taking into consideration multiple Lebanese healthcare sector policies.

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IV. Results

This section covers the results and discusses the study by answering the questions and by computing frequencies, percentages, means, standard deviations, and classification of the subject's responses.

A. Demographic Variables

Individuals have been eligible to take part in the event that they have One hundred ninths six responses were received; however, the study took into account all of the replies. The percentage of nurses employed in Lebanese hospitals is unclear thus it is impossible to compute a participation percentage. Therefore, the survey constitutes only the nursing staff in the hospitals and medical centers in Tyr city.

The majority of the repliers (n = 196) were female nurses that are practitioners (n = 150; 76.5%). The mean of respondents' age was 32.6 years (SD = 0.75; Table I). Over eighty percent of respondents (n = 171; 87.2%) previously had a nursing job between 6 and 10 years, with nurses working means an average of 2.04 years as nursing. The majority of participants (n = 181) were employed as Full time. Respondents were employed in the hospitals and medical centers in Tyr city; nearly half of the respondents are Palestinian (n = 92; 46.9%) and 34.2% are from Lebanon (n = 67) and 18.9 % are from other nationality (n = 37). one hundred seventy-one respondents (87.2%) worked as registered nursing, with 11 respondents (5.6%) employed as Practitioner nurses. Moreover, 71.4% have Bachelor's Degree (n=140, Table I).

B. Changes of Employment and Role

The majority of respondents (n = 88; 44.9%) reported either increased periods of work, potential dismissal, or real end of business since the onset of the pandemic (Table II).

While there was a significant statistic between employment termination and decreasing working hours (P<0.001, Table III). Moreover, no significant difference between increasing working hours (p>0.001) and feared cessation of careers.

31.6 (n = 62) percent of those surveyed said they have contemplated resigning. Concerns about individual personal health (n = 24; 12.2%) and psychic wellbeing (n = 7; 3.6%), work security or decreased hours (n = 7; 3.6%), and family wellbeing (n = 20; 10%) were the top factors for seeking to quit. (Table IV). 32.7% of respondents (n = 64) shifted to other branches seeing as lesser face-to-face discussions were performed and there seems to be a transform up of tele-health consultations by general practitioners (GPs) (Freeman, & Sweeney, 2001).

TABLE I: Demographics

Variable	Classification	Frequency	Percentage
Gender [Mean=1.23, SD=0.425]	Female	150	76.5
	Male	46	23.5
Age, years [Mean=2.89, SD=0.754]	Smaller than 20	0	0
	Between 21 & 30	57	29.1
	Between 31 & 40	112	57.1
	Between 41 & 50	19	9.7
	Between 51 & 60	7	3.6
	Greater than 61	1	0.5
Education [Mean=1.40, SD=0.690]	Bachelor	140	71.4
	Diploma	35	17.9
	Master/PhD	20	10.2
	Other	1	0.5
Marital Status [Mean=1.43, SD=0.497]	Married	111	56.6
	Unmarried	85	43.4
Nationality [Mean=1.85, SD=0.714]	Lebanese	67	34.2
	Palestinian	92	46.9
	Other	37	18.9
Professional Designation [Mean=1.18, SD=0.513]	Registered Nurse	171	87.2
	Enrolled Nurse	14	7.1
	Nurse Practitioner	11	5.6
Years operated in nursing [Mean=2.04, SD=1.16]	From 6-10 years	86	43.9
	Less than 5 years	49	25.0
	From 11 to 15 years	39	19.9
	From 16-20 years	12	6.1
	More than 21 years	10	5.1
Employment Status [Mean=1.08, SD=0.267]	Full-Time	181	92.3
	Part-Time	15	7.7

TABLE II: Changes of Employment

Variable	Frequency	Percentage
During Covid-19 the hours of working increased per week	88	44.9
During Covid-19 the hours of working decreased per week	33	16.8
Did you threaten termination of employment?	37	18.9
Did you have an actual termination of employment?	28	14.3
Did you move to another department?	64	32.7
During COVID-19, Have you resigned?	26	13.3
Did you consider resignation during COVID-19?	62	31.6

TABLE III: ANOVA TEST

		Sum of Squares	df	Mean Square	F	Sig.
During Covid-19 the hours of working increased per week	Between Groups	0.967	1	0.967	3.948	0.048
	Within Groups	47.523	194	0.245	-	-
	Total	48.490	195	-	-	-
During Covid-19 the hours of working decreased per week	Between Groups	3.180	1	3.180	25.429	0.000
	Within Groups	24.263	194	0.125	-	-
	Total	27.444	195	-	-	-

TABLE IV: REASONS FOR CONSIDERING RESIGNATION

Reasons for considering resignation	Frequency	Percent
Career responsibilities	7	3.6
worry for family safety	20	10.2
worry for personal physical safety	24	12.2
worry for psychological safety	7	3.6
Desire to work in another healthcare	14	7.1
I was cross-trained in an unfamiliar setting	1	0.5
Keep sending to another department	1	0.5
an absence of career certainty / a decline in working hours	7	3.6

C. Knowledge, Attitudes, and Support

Essentially all respondents highly agreed and agreed that they comprehended the dangers of coronavirus and how to keep themselves safe (with n = 175; 89.3%) and patients (n = 175; 89.3%; Fig. 1). Additionally, 83.7% (n = 164) strongly agreed and agreed that they were knowledgeable enough with the coronavirus (Table V). Numerous participants also agreed or strongly agreed that transmitting COVID-19 to close relatives was a problem. (n= 150; 76.6%) or their medical work placed their well-being in jeopardy (n= 134; 68.4%).

77.1 percent (n = 151) of participants strongly agreed or agreed that they'd be prepared to treat coronavirus patients if given the chance. Participants were considerably less enthusiastic about being helped, with just 59.7% (n = 117) strongly agreeing or agreeing that their company provides them with adequate assistance in their medical work. Over 50% of those polled strongly agreed or agreed they had been aided by the hospital (n = 129; 65.8%) or the Lebanese Ministry of Health (n = 129; 65.8%).

TABLE V: KNOWLEDGE AND ATTITUDES

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I feel that the hospital where I am working supported me during the pandemic in delivery care	15.8	50.0	25.5	4.6	4.1
I feel well supported in my clinical role by the Ministry of Health in Lebanon	16.3	49.5	26.5	6.6	1.0
I feel well-supported in my clinical role by my employer	14.8	44.9	31.1	3.1	6.1
I have access to mental health support during the COVID-19 pandemic	10.2	38.8	31.1	15.8	4.1
I have received sufficient information from my managers/employers regarding the care of patients with COVID-19	18.4	58.7	16.3	3.6	3.1
I feel that my role puts my health at risk during the COVID-19	27.6	40.8	24.5	6.6	0.0
I was always concerned about spreading COVID-19 to my family members	38.8	37.8	16.8	5.6	1.0
At present, I have sufficient knowledge about COVID-19	35.2	48.5	15.3	0.5	0.0
I understand how to protect myself during COVID-19	46.4	42.9	10.2	0.5	0.0
I understand how to protect my patients during COVID-19	44.9	44.4	9.2	1.0	0.5

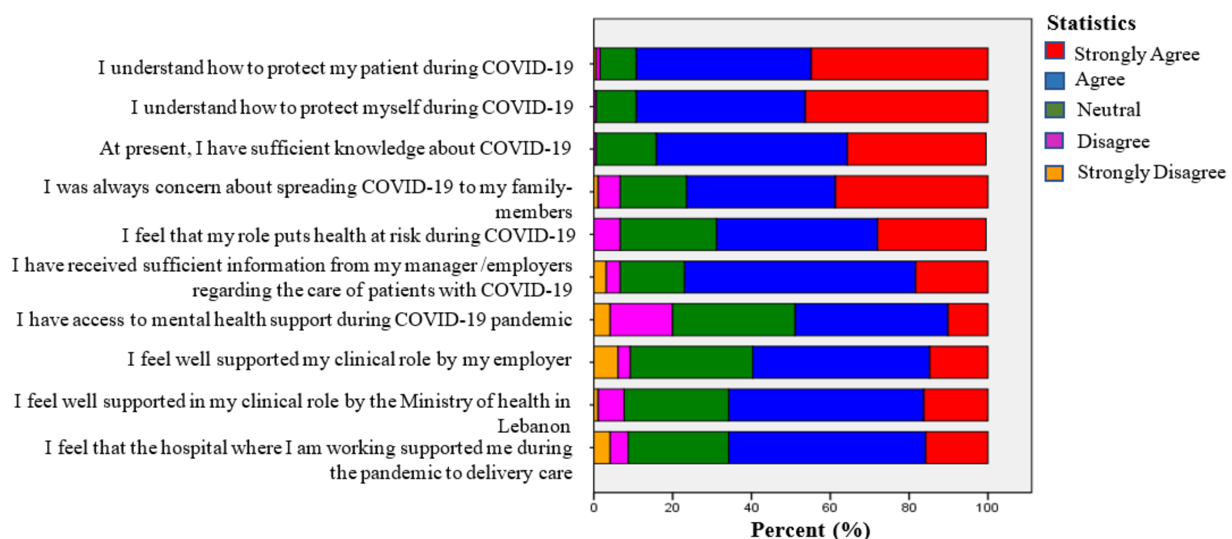

Fig. 1. Knowledge and attitudes.

V. Discussion

The present survey provides the primary endeavor to explicitly examine the experiences of PHC nurses in the coronavirus outbreak. The outcomes feature the huge effect of the pandemic on the work of PHC medical attendants and their job. as well as the possible adverse consequence on the quality and number of cases. Understanding these encounters is dynamic to guarantee labor force support during and later the pandemic to enhance worker maintenance, maintainability, and nature of care.

A key finding of the study was that nursing professionals were very concerned about their safety at work and many of them reported decreased work time, which seems somewhat inconsistent given the growing health needs of the population for screening and pandemic management, and ongoing medical care.

The results exposed significant personal safety concerns that led many caregivers to consider quitting their jobs. Previously reported increased fear of the dangers related to intense treatment use during pandemics (Holroyd & McNaught, 2008) (Kang *et al.,* 2018) (Koh *et al.,* 2012) (Lam & Hung, 2013). Rapidly dynamic clinical practice, inadequate preparation for a pandemic, inadequate and restricted resources, and potential exposure to sickness all contribute to a perceived threat to private safety (Holroyd & McNaught, 2008) (Shiao *et al.,* 2007). While the passing of partners has made vulnerability and tension in preceding pandemics (Holroyd & McNaught, 2008) (Koh *et al.,* 2012), the excessive variety of healthcare people demise globally because of COVID-19 (Ehrlich *et al.,* 2020) is in all likelihood to have extended modern-day concerns.

Previous studies for the duration of pandemics have proven that ordinary provider disruption has caused multiplied morbidity and mortality, especially for older humans with complicated persistent clinical situations and people in deprived communities (Dempsey *et al.,* 2019). consistent with reviews with the aid of using Hendrie in 2020 that predicted that displays to Australian clinics as well as trendy practices are down with the aid of using 50% of the participants in our take a look at suggested a reduced caseload. Explanations behind this decrease change from well-being experts being hesitant in order to visualize patients in person, person Associate in a Nursing endeavor to socially detach themselves, and people being hesitant to gift to what they comprehend is an overloaded well-being framework. This features a craving for local area instruction regarding service availableness and therefore the importance of in-progress management and cares for complicated conditions and techniques to sorting healthcare- administrations for those who need them.

Of worry in our concentrate, almost 50% of respondents (n = 88; 44.9%) reported either increased hours of employment, threatened termination, or actual termination of employment. Just over half of respondents (59.7%) feel great upheld in their clinical job by their boss. While most respondents (83.7%) sensed that they had adequate information about COVID-19, they communicated worry about work-related dangers to themselves and their relatives (n= 175; 89.3%). 65.8% of respondents perceived that support given in their working environment was good prior to the outbreak.

In general, Pandemics' reasons for disruption to services impact care quality (Hartmann-Boyce & Mahtani 2020). Vulnerable populations in danger of chronic unwellness are particularly liable to infectious illnesses, requiring in-progress support to forestall redoubled morbidity (Hartmann-Boyce & Mahtani 2020).

Nurses additionally face problems throughout pandemics through the absence of support of care in link with patient desires (Corley *et al.,* 2010). Sufficiently resourcing and using this cluster of nurses in applicable funding, geographical point organization.

VI. Conclusions and Limitations

The results of this research show that the coronavirus has considerably wedged the nurses' jobs. as well as health and safety issues at Lebanese Hospitals and Medical Centers. These factors may also have an impact on the quality of service provided and the rates of illness and mortality within populations. The current project offers head nurses with the Lebanese Hospitals Medical Centers, which is founded on evidence, to efficiently set up and maximize nursing service distribution in accordance with organizational goals during this and upcoming disease outbreaks.

This research has been conducted quickly to notify emerging PHC rules and knowledge associated with the coronavirus pandemic in Lebanon. As this study is a brief overview, it won't grasp the changing experiences and insights following the disease development and alterations in rules and training. Where the extent and effect of this catastrophe, despite this being the first Lebanese questionnaire of primary health care nurses till now, the approach of selecting and enrollment through social media might also additionally have omitted nurses lacking getting the right of entry to those platforms. Also, we are not certain about the number of nurses recruited in Primary health care. Nevertheless, it isn't possible to compute a denominator of the responses. The small sample size is another limitation. The nature of a pandemic is also a barrier and limitation.

Concerning the limitation of sampling of PHC nurses, more samples will be added around the country may have added in order to get strong feedback about the experience of the PHC in Lebanon. furthermore, showing more qualitative studies about the COVID-19 pandemic will balance our information on the current situation and future pandemics and provide guidance on how to effectively manage these situations.

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