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Perspectives of nurses on preparedness for combating COVID-19 crisis in Ghana: A qualitative inquiry

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A B S T R A C T

Background: COVID-19 has impacted negatively on people physically, psychologically, spiritually, and socioeconomically worldwide. Nurses' ability to prepare towards case management is imperative because the potential of one coming across the virus at the hospital is inevitable. This study intended to explore and describe nurses' perspectives on preparation towards fighting COVID 19 in Ghana.

Methods: A qualitative exploratory descriptive design was adopted. Nine major health facilities designated for COVID-19 treatment centres in four regions in Ghana were involved in the study. A semi structured interview guide was used to interview twenty-nine nurses via telephone based on data saturation. Ethics approval was obtained from the Ethics Review Committee of the Nursing and Midwifery Council of Ghana.

Result: data yielded two major themes and four subthemes. The two main themes were 1. Health facilities' preparation of nurses towards COVID-19, with its subthemes; targeted training, and selection of experienced staff. 2. Nurses' individual preparedness towards COVID-19 with the subthemes; information sourcing and sharing. Nurses in Ghana prepared for combating COVID-19 by going through training on infection prevention and control, and case management using demonstrations and simulations. Experienced nurses in Ghana volunteered to be at the frontline managing cases. Continuous updates on the virus and its management through information tracking sharing played a key role.

Conclusion: Nurses in Ghana need to have more speciality training targeted at diseases of public health importance. Key words: Nurse; preparedness; covid-19.

1. Introduction

When the World Health Organization (WHO) announced that, the COVID-19 disease has become a pandemic, it caused a lot of fear, anxiety, and a feeling of hopelessness and despair as well as helplessness in people due to the devastating nature of the virus and the havoc it causes (Amewu, Asante, Pauw, & Thurlow, 2020; Nelson & Lee-Winn, 2020; Upoalkpajor & Upoalkpajor, 2020)). Countries began to prepare to combat the disease by strengthening their health systems through training and improvement in resources (Zhang, 2020). The disease has had a physiological, psychological, spiritual, and socio-economic impact on people all over the country (Amewu et al., 2020; González-Gil et al., 2021; Nelson & Lee-Winn, 2020). Schools were closed down, at the same time businesses came to a standstill, and international borders shut down due to the various lockdown impositions (Upoalkpajor & Upoalkpajor, 2020). All these were measures taken to prevent the importation of the virus into the home countries or to minimize the spread of the virus. Amid all the fear and anxiety of the pandemic, the

health sector never shut down, and there was nothing like virtual health care delivery services. Health workers are rather prepared passionately towards combating the disease through active training, resource mobilization, and research (Tables 1 and 2)

Experts explain that health emergency preparedness is a strategy for a country to test and evaluate its capabilities and, or recovery from an event that puts a significant strain on its healthcare and operating systems (Kinyanjui, Fonn, Kyobutungi, Vicente-Crespo, Bonfoh, Ndungu, & Musenge, 2020; Puryear & Gnugnoli, 2019). In the West African sub-region, about 300 million people are subjected to frequent emergencies like the 2014 Ebola epidemic in Sierra Leone and the 2018 floods that occurred in Nigeria (World Health Organization. (2018), 2018). These emergencies usually come with an increasing death toll (Hussey & Arku, 2020). The grave areas of health emergency preparedness are; pre-hospital emergency preparedness, in-house emergency response plans, human capacity building and, the assessment of existing infrastructure in emergencies (Khan et al., 2018; Stoto, Nelson, Savoia, Ljungqvist, & Ciotti, 2017). The impact of these health emergencies can be minimized

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Table 1
Biographic Data of Participants.

Age	Gender	Qualification	Years served	Rank
31	Male	Certificate	7	Senior Nursing Officer
35	Female	BSc Nursing	15	Senior Nursing Officer
35	Female	BSc Nursing	8	Senior Nursing Officer
34	Female	BSc Nursing	12	Senior Nursing Officer
36	Female	BSc Nursing	18	Principal Nursing Officer
30	Female	Certificate	6	Senior Nurse Assistant curative
41	Female	BSc Nursing	12	Principal Nursing Officer
35	Male	Diploma	10	Senior Nursing Officer
37	Female	BSc Nursing	15	Senior Nursing Officer
56	Female	BSc Nursing	31	Deputy Director of Nursing Service
31	Female	BSc Nursing	10	Nursing Officer
33	Female	Diploma	7	Senior Staff Nurse
34	Female	Diploma	9	Nursing Officer
45	Female	Diploma	11	Principal Nursing Officer
52	Female	BSc Nursing	20	Principal Nursing Officer
26	Female	Certificate	2	Health Assistant
44	Female	BSc Nursing	18	Principal Nursing Officer
42	Female	BSc Nursing	11	Principal Nursing Officer
34	Female	Diploma	9	Senior Nursing Officer
37	Male	Diploma	6	Senior Staff Nurse
35	Female	BSc Nursing	4	Nursing Officer
33	Female	BSc Nursing	6	Nursing Officer
31	Female	BSc Nursing	6	Nursing Officer
40	Female	Diploma	11	Nursing Officer
42	Female	BSc Nursing	10	Senior Nursing Officer
32	Female	BSc Nursing	4	Nursing Officer
42	Female	Diploma	7	Senior Nursing Officer
45	Female	BSc Nursing	10	Principal Nursing Officer
30	Female	BSc Nursing	7	Nursing Officer

Table 2
Themes and Subthemes.

No.	Main Theme	Subtheme
1	Health facilities preparedness of nurses towards COVID –19	a. Targeted training b. Selection of experienced staff
2.	Nurses' preparedness towards COVID-19	a. Knowledge acquisition b. Information sourcing and sharing.

remarkably when adequate preparations are made (Cocker & Joss, 2016; Chairperson, 2010; Chan and Lam, 2020). Well-trained healthcare personnel, structured hospitals, and proper functioning medical supplies form major constituents of good emergency preparedness. However, Sub-Saharan African countries including Ghana do not have adequate structures to mitigate health-related crises (Afriyie, Asare, Amponsah, & Godman, 2020). It is noted that, the ability of African nations to manage infectious disease outbreaks has mainly been the responsibility of high-income countries (Makoni, 2020).

Certainly, a country like Ghana needs enormous external assistance to contain the current COVID-19 pandemic (Revere et al., 2011; Scott & Errett, 2018; Seyedin & Jamali, 2011; Pupovac, 2002). Nonetheless, the critical roles of local leadership and communities cannot be overstressed. The current crisis provides a unique opportunity for low- and middle-income countries that are affected and those that are not yet affected to make advances on creating culturally and contextually relevant solutions to build resilience and strengthen health systems for outbreak control (Khan et al., 2018; Leinhos, Qari, & Williams-Johnson, 2014). This will require significant investment and support to provide infrastructure, train the right personnel, raise standards of hygiene and protection in communities and healthcare facilities (Lane & McGrady, 2018; Framework, 2020; Hughes, 2013). There should be mechanisms in place for coordination and collaboration across sectors, and to enlist the

people on the frontline in families, communities, and healthcare facilities as allies in the process (Nyarko et al., 2015).

The aftereffects of the 2014–2016 West Africa Ebola Virus Disease outbreak, propelled the WHO to call on all countries to create a strong united system that can be responsive and proactive to any imminent health threat. Sadly, evidence has it that, Ghana is not prepared for such threats (Makoni, 2020; Paintsil & Paintsil, 2020). Resilient systems have been defined as bodies that rapidly obtain data about their environments, speedily adjust their behaviors and structures to changing conditions, communicate effortlessly and thoroughly with others, and generally marshal networks of expertise and material support (Stoto et al., 2017). Ghana needs a practical national hospital and medical emergency response programmes and trained emergency medical personnel (Amu & Nyarko, 2016). In 2012, a study conducted among hospitals in the then ten regions of Ghana on emergency preparedness reported that, the majority of the medical and allied health personnel lacked competence in emergency care. Also, medical supplies were inadequate (Norman, Aikins, Binka, & Nyarko, 2012). The study further stated that, if nothing is done immediately to improve the weak healthcare system in the country, Ghana will observe dangerous outcomes if the country experiences any health emergency. It was then concluded that, Ghana may not survive a massive health emergency if it occurs (Norman et al., 2012). Agreeably, the findings of Nyarko et al. (2015) revealed that, Ghana is not prepared for health emergencies with a certain magnitude just like many African countries.

Nurses and midwives form a majority of the workforce in the healthcare industry and form mainly the frontline health workers who work 24 h to give care, prevent disease complications and preserve lives (WHO, 2019). In the events of an epidemic, the nursing and midwifery professions are the leading workforces at risk of contracting the disease because they work around the clock (Nelson & Lee-Winn, 2020). We deemed it necessary, therefore, to explore nurses' and midwives' perspectives on their preparation towards fighting a pandemic. The aim of this study, therefore, was to describe the perspectives of nurses and midwives in their preparation for emergency management in a crisis given the COVID-19 pandemic.

2. Methods

2.1. Research design

The study used a qualitative exploratory descriptive design to investigate the phenomenon. The approach was deemed appropriate because this is the first time such a phenomenon on a pandemic is being investigated among nurses in Ghana hence, an exploratory descriptive approach is useful (Polit & Beck, 2014).

2.2. Study setting

This research was conducted in four regions at nine different government-funded hospitals designated for confirmed COVID-19 case management. These settings were purposively selected based on the focus of the study, which was to assess nursing workforce preparedness during the Covid-19 pandemic. These hospitals were the Greater Accra Regional Hospital, the Ga East Hospital, the University of Ghana Hospital, the University of Ghana Medical Centre, the Tema General Hospital, the Komfo Anokye Teaching Hospital, the Kumasi Government Hospital, the Tamale Teaching Hospital, and the Wa Regional Hospital. These hospitals were the first centres set up around the country to receive suspected and confirmed cases of COVID-19.

2.3. Population, sampling, and sample size

The research population included all ranks of nurses who worked at the emergency departments and treatment centres designated for COVID-19 suspected and confirmed cases. Twenty-nine participants

were recruited to participate in this study through purposive and snowball sampling techniques as determined by data saturation (Saunders et al., 2018). Purposive sampling was used to identify key participants. Through the key participants, other participants were recruited by snowballing. In all, four (4) participants were interviewed from the Greater Accra Regional- Hospital, four (4) from the Ga East Hospital, five (5) from the University of Ghana Hospital, two (2) from the University of Ghana Medical Centre, four (4) from the Tema General Hospital, two (2) from the Komfo Anokye Teaching Hospital, three (3) from the Kumasi Government Hospital, two (2) from the Tamale Teaching Hospital and three (3) From the Wa Regional Hospital.

2.4. Inclusion

All nurses and midwives working at the demarcated COVID-19 isolation and treatment centers selected across the country who consent to be part of the study were recruited.

2.5. Exclusion criteria

Student nurses and midwives, and orientation nurses and midwives working at the selected centres were excluded.

2.6. Data collection

Qualitative data was collected through individual in-depth interviews from April to May 2020. To ensure the trustworthiness of the data, the interviews were guided by a set of questions the researchers prepared beforehand. The researchers contacted the nurse managers of the various COVID centres and informed them about the objectives of the study. Their assistance was sought to help recruit participants for the study. Before the data were collected, the researchers first established rapport with participants and acknowledged them. Participants who consented to participate in this research were engaged in a one-on-one individual telephone interview. Each Interview lasted between 30 min to one hour. All the interviews were conducted in English and audio recorded with participants' permission. During the interviews, participants were asked to share their experiences regarding their preparedness to ensure safety and wellbeing in the face of the novel coronavirus pandemic. Some of the questions asked include: *How have you prepared to face COVID-19 cases? Please tell me what you have been doing since you heard of this disease? Kindly share with me how you stay informed in this crisis, and; What management strategies did you partake in?* Data collection ended at saturation when no new concepts relevant to the study objectives emerged (Fusch & Ness, 2015).

2.7. Data analysis

Audio-recorded interviews were transcribed verbatim. The transcriptions began after the first interview and this continued concurrently with subsequent data collection. Data were processed anonymously with ID numbers to ensure the confidentiality of participants. All authors read the transcripts severally to familiarize themselves with the data. The transcripts were then coded by three of the authors independently using content analysis (Graneheim, Lindgren, & Lundman, 2017). The coding frames were guided by the interview guide developed. NVivo computer software version 11 was used to manage the data (Bazeley & Jackson, 2013). All five researchers reviewed the coded transcripts separately. Similar codes were grouped to form subthemes while similar subthemes were grouped to form main themes. The authors met to review the themes and subthemes that were generated until a consensus was reached on emerging themes and subthemes.

2.8. Rigour

In ensuring the trustworthiness of the study, the authors established

a cordial relationship with the participants preceding data collection, this was to put participants at ease so that, they could speak freely. All the interviews were conducted via telephone due to the lockdown imposition in the country. During the interviews, the researchers probed participants' responses and sought for clarifications to reaffirm their narrations. The audios were recorded; the data were transcribed verbatim to increase the accuracy of participants' narrations which further increased the dependability of the findings. Participants had enough time during the interview to share extensively their take on the phenomenon. Seven (7) transcripts were sent back to participants who agreed to read their transcripts. The researchers discussed ensuring that data collected were accurate, complete, well interpreted, and findings denoted exactly what participants shared when they were being interviewed. The authors kept an audit trail and used verbatim quotations to denote what participants said and, to tried to avoid biases and subjectivities in the study.

3. Ethics considerations

Ethics approval was obtained from the Ethics Review Committee of the Nursing and Midwifery Council of Ghana (IRC NO. N&MCIRC/0000002). Research information on this study was communicated and explained to research participants and informed consent was obtained before data collection. Respondents were informed that, they had the right to withdraw from the study at any point, without fear of punitive measure or punishment. Anonymity was maintained by assigning participants with special codes and confidentiality was also maintained (by) making sure all audio tapes, transcribed data, field notes, and documented information given by the participants were stored and data encrypted. Access to the data is restricted to the research team alone. The researchers anticipated the risk of psychological discomfort associated with memories of past or present experiences of nursing in crises and made prior arrangements for a Clinical Psychologist to provide mental health support for the participants. However, no psychological therapy was offered as no one broke down emotionally during the interview.

4. Result

A total of 29 nurses who work in the various COVID-19 centers across the country were recruited to take part in the study. Two major themes and four subthemes were generated from the data. The two main themes were 1. Health facilities' preparedness of nurses towards COVID-19, with the following subthemes: targeted training, selection of experienced staff, and 2. nurses' preparedness towards COVID-19 with subthemes; knowledge acquisition, and information sourcing and sharing. All the participants interviewed were nurses though the study targeted both nurses and midwives. Most of the participants were females in senior nursing positions. Below, is the detailed demographic characteristics of participants.

4.1. Health facilities preparedness of staff towards COVID-19

This theme describes the kind of preparations institutional heads made for nurses to support them in anticipation of combating COVID-19 cases. The theme had two subthemes: targeted training and selection of experienced staff. Before Ghana recording, its first case of the Coronavirus, health care professionals were purposively taken through series of training. Aside from the training, nurses who were involved in caring for COVID-19 cases in Ghana were experienced staff with diverse nursing backgrounds. The nurses recruited for this study have practised nursing for 4 to 18yrs. Some were critical care nurses, emergency nurses, psychiatry nurses, and registered general nurses who are infection prevention and control (IPC) trainers or coordinators. Some have worked in infectious disease units for years and have accumulated several experiences on how to care for people with highly infectious disease

conditions. Some of the participants were also nurses who took part in the management of the deadly Ebola disease that broke out in Sierra Leone, and other West African countries. Others had similar experiences in caring for people who do contract cholera and other infectious disease conditions that are endemic in Ghana.

4.1.1. Targeted training

According to the study participants, they first had training of trainers, and these trainers were supposed to train more people in preparation for COVID-19, but the sudden spread of the virus led to these trainers becoming the frontline Health staff. The training focused on infection prevention, donning and doffing of personal protective equipment (PPEs), and case management.

“What happened was that we volunteered to take up the COVID-19 training as trainers’ training, so we were supposed to have the training and then come back to train some more people to get us all ready for the management of the COVID-19 cases then so we found ourselves in it just after the training because cases have started coming up and then we quickly have to get in and start supporting” NIC-A4

The training of nurses and midwives started in December 2019 when China first recorded its cases and the focus was on infection prevention protocols and management of cases. The nursing and midwifery council of Ghana together with the Non-Governmental Organization took turns to train nurses to fight the pandemic.

“We’ve had training on infection prevention and control and then the donning and the doffing of the PPEs and then the management of the cases in the ICU. ...we’ve had sessions, it started from December...the infection prevention and control started from December then in January we did same and then NMC in collaboration with an NGO and also trained all the nurses on the donning and the doffing of the PPEs” NIC-B2

“No, we had a training last month and then three weeks ago, we had a training on managing the cases in the ICU. The training was about how to manage the COVID-19 cases in the ICU” (NIC-B3)

Some facilities had about two to three training sessions after Ghana started recording positive cases to get knowledge on the virus.

“Yes, I think ...when we recorded one case I was added to the group, I was at the essential group centre we were taking care of people living with HIV and diseases so we were trained on how to don and use the PPEs” NIC- E2

“It was when we had the outbreak that we were given some training at the hospital by our public health team about 2, 3 times before we joined the frontline and ...working” NIC-D1

In addition to the series of training given to the nurses, some also had psychological preparation and orientation to an established model setting prepared for COVID-19 case management. This brought about a strong feeling of how an ideal COVID-19 treatment setting should look like.

“It wasn’t easy at all, we started with series of training on infection prevention protocol, so we had the chance to have a Clinical Psychologist to psyche us before we started managing the patients”. NIC-C2

“I think it was last month I don’t remember the exact date but it was last month. Then we went to Ga East to have a training and they orientated us on the setup, how to set up for the pandemic...we went to see how they have set-up so that we could make some changes or improve upon ours”. NIC-B2

4.1.2. Selection of experienced staff

The long years of experience of the nurses in Ghana who volunteered to be frontline health workers gave them the courage to take up such a challenging task and accepted the responsibility to care for cases of COVID-19

“I am a Principal Nursing Officer and I think I have worked for almost 18 years” NIC-A4

“Okay, I have worked for 6 years” NIC-C2

“This is my seventh year of working” NIC-J1

“That will be from 2016 till now so about 4 years now.” NIC-D1

“Yes, I have had some experience of nursing, since 2009, so probably 9 years of clinical experience”. NIC-B2

Some of the participants have also worked in different hospital settings and wards at different places in the country.

“I have worked at the Surgical Department, the Medical ward, the Emergency unit and had the chance to work at the Paediatric Ward” NIC-C2

“Yes, I have worked at the Theatre Recovery unit, then from there to the Paediatric Surgical Ward, then from there I was made an In-charge at the Fevers’ unit yes”. NIC-E3

“I worked for 7 years at Agogo hospital, then 7 years at the Pentecost Hospital, and now I am working at the Ga East Municipal Hospital since January 2020; Being a General Nurse gives you the opportunity to be reshuffled to any of the departments in a hospital so I have been at the Medical Unit, the Surgical Unit, the Paediatric Unit, the Emergency Unit and then I have also run HIV clinic for continuous 5 years”. NIC-C1

Apart from the years of experience, the nurses believed they were prepared to face the virus based on the kind of programmes they pursued and the diverse work experiences they have accumulated over the years. The team had emergency nurses and critical care nurses with different years of experience.

“I am a trained emergency nurse, and that training has, in fact, redefined my nursing career in totality, ...it has made me so confident that there is virtually nothing that I will be challenged with that I will feel like I am incapacitated or something”. NIC-H1

The Critical Care Nurses in the team believed that they are trained to manage life-threatening cases like COVID-19 and are focused to care for such cases.

“I am a critical care nurse and I think in Critical Care ...we are trained to manage life-threatening situations so we are always ready, so anytime anything comes, if you are available and you are called anytime you have the training and the readiness to give out your best” NIC-A4

“My team, the ICU team is very energetic, we are very focused and we have lots of experience because most of us are coming from different, other hospitals and we met at UGMC, lots of senior people are there to take us through the things, so my ICU team, ... are very experienced, very focused, and very smart” NIC-B2

Some of the participants also had multiple experiences to share. Some took part in caring for highly infectious disease conditions and thought they were also in the best position to face COVID-19 because they have the insider experience and dared to face COVID-19 due to their experiences with other equally infectious diseases like Ebola and Cholera.

“...I was part of the team that went to Sierra Leone during the Ebola epidemic. So, after the Ebola, I was sent to the infectious diseases unit and then back to the psychiatric unit So I’m currently working at the ICU...I think the Ebola gave me more information about infectious diseases and it also strengthened me because when Covid came I can say I’ve never been afraid because I know if you do the right thing, you’ll go and come back and you won’t be infected. And I think it is from the experience I have from the Ebola thing”. NIC-J1

“Pandemic no, but an epidemic, yes...we worked during the cholera outbreak time at La General Hospital” (NIC-B2)

4.2. Nurses' preparedness towards COVID-19

This theme embodies the personal preparations the nurses themselves made toward fighting the virus. Two subthemes arose and they include knowledge acquisition, and information sourcing, and sharing. The nurses made individual efforts to seek knowledge of the virus as to how it behaves, its mode of spread, management strategies, and new studies was done on the virus to empower themselves. To gain more knowledge and prepare better, the nurses sourced information from different sources and shared the information gotten among themselves using WhatsApp platforms. Various health facilities across the country set up different WhatsApp platforms for Nurses who volunteered to be frontline healthcare workers to look out for information on COVID-19 periodic updates. The participants indicated that they looked out for information on the World Health Organisation's website, Ghana Health Service's website, Wikipedia, Nursing and Midwifery Council's platform, Medscape, world meter, and individual nurses' institutional platforms.

4.2.1. Knowledge acquisition

Participants narrated how they acquired knowledge and understood COVID-19. They learned about the nature of the disease and what scientists have said about the disease in terms of advances made to combat it. Participants' descriptions also included the nature of the virus, how it was discovered, and mode of spread and preventive protocols.

"It is now a pandemic and is mostly spread through contact with an infected person which is through sneezing and coughing without covering the nose or mouth so most at times we ensure that we the staff there always maintain social distance among us," NIC E2

"COVID 19 is a pandemic, it affects the lungs and ...has symptoms of cough, shortness of breath, difficulty in breathing and present itself as pneumonia so now if we get any pneumonia case, we treat it as COVID-19 until it is proven not to be COVID-19 ...we keep social and physical distance two meters apart if we are in an overcrowded space, and we put on a face mask. At the clinical areas, we clean surfaces with 0.5% chlorine solution, and wash our hands with 0.05% chlorine solution". NIC-B2

Participants sourced information on the nature of the virus, its mode of spread, and the different signs and symptoms people exhibit when affected.

"I know it is an infection that is caused by a virus called the SARS COVID-2, SARS Coronavirus 2 causes the Covid-19 infection, the incubation period for the virus is between two and fourteen days, and the basic symptoms are sore throat, cough, fever proceeding with difficulty in breathing and fibrosis of the lung tissue in extremes cases. Through reading, I got to know there are some symptoms that are not very common like diarrhoea" NIC-A4

"It started from Wuhan, China which was discovered on 31st December 2019. It was declared a pandemic... by WHO. they are a group of viruses with different strains. It spreads when droplets settle on fomites and your hand picks them. Then, you can get it through your mouth, nose, or eyes. It normally affects the lungs ...others are also asymptomatic when they have the virus". NIC-D1

Some participants learned about researches being done in the area of COVID-19 management and treatment of choice and protocols put in place for use.

"Initially scientists didn't actually know exactly the mode of transmission and the pathogenesis, they didn't know anything about it, but they thought it was just an acute respiratory syndrome ...but then eventually it's now coming out that it's even more like a blood condition ...they have done trials that suggested that azithromycin and hydroxychloroquine combination was the most effective management for it so far. NIC-H1

4.2.2. Information sourcing and sharing

The nurses and midwives prepared themselves based on the information they obtained from countries that first experienced the virus via news and the internet.

"It wasn't easy ... from the information we had outside, it is like the disease was killing people and personally I was afraid ...but if only you follow the management protocols and the infection prevention protocols, you will be fine but it was not easy". NIC-C2

The nurses' sources of information included; news broadcasts, WhatsApp platforms, Medscape, WHO website, YouTube, Worldometer, Wikipedia, workmates, and superiors.

"We have a page, a WhatsApp page where we are given information. we do our personal research also on the internet. I normally follow every news item, like on research about the virus so I get myself updated on all that is happening". NIC-D1

Some had doctors at their workplaces linking them to sites where they could get information and updates.

"...I go on the internet, and the WHO platform for updates, we have created a page and some doctors put some links on it for us to learn". NIC-E2

"I use world meter for updates and then the Ghana health service page". NIC-B2

Aside from looking for information, nurses also took the opportunity to do a simulation to rehearse how they will nurse actual COVID-19 cases in their facilities.

"we chat, learn, and discuss trending issues on COVID-19. When we didn't have cases, we did simulations to see how we were going to do things in a case when we get cases... we did this over and over and got to know each other and understand our work environment. (NIC-B2)

In addition to accessing the information on the WHO platform, participants also followed the Nursing and Midwifery Council's platform, for information and updates on COVID-19.

"At times I follow the NMC, that's the WCEA. The NMC of Ghana has a platform...and they have uploaded some courses on the coronavirus pandemic, so I do follow them there. Also, at times I go to the WHO site and there are other sites" NIC-H1

5. Discussion

Nurses in this study, had health facility preparations together with individualized preparations toward the combat of covid 19 in Ghana. The nurses needed to prepare adequately and act swiftly with the requisite knowledge, skills, abilities, and a determined mind to function. This study intended to explore nurses' and midwives' preparedness towards combating COVID-19 in Ghana.

The findings revealed that, all the participants recruited were only nurses who volunteered to work as COVID-19 frontline health workers. By way of preparation, they received some emergency training from their facilities. The training focused on infection prevention and control, and case management. In the same way, health workers in China are prepared to fight the virus through similar training (Zhang, 2020). This finding corroborates with the findings of Leinhos et al. (2014) and Fernandez et al. (2020). These studies reported that training for healthcare staff was integral to the management of health crises. They asserted that, refresher training sharpens healthcare personnel's skills and keeps them updated on emergency management and current trends.

On the contrary, the World Health Organization (WHO) maintains that, institutional structural strengthening and the constitution of emergency response teams is the best way to get prepared for emergencies and not spontaneous personnel training (World Health

Organization. (2020), 2020) as revealed in this current study. This contrast exists probably because African countries do not experience emergencies such as a hurricane, major floods, widespread cases of flu and many other difficulties, as is experienced in the developed countries (Dewan, 2015; Padli, Habibullah, & Baharom, 2018). As such, the urgency with which preparations are made toward the management of emergencies differs. Participants in this study were not adequately prepared for the management of COVID-19 cases in Ghana, like many low-income countries.

The findings revealed that, experienced nurses volunteered to help fight against the Coronavirus in Ghana. Work experience gives a person the opportunity to build confidence for future challenges and to apply skills acquired. Drawing from the experiences acquired, while caring for patients during the Ebola outbreak in Sierra Leone, and other African countries, together with caring for Cholera patients and other infectious disease conditions (which are endemic) in Ghana, the nurses in this study were courageous and confident to volunteer to care for COVID-19 patients in Ghana. Other studies have reported similar findings and these authors identified the work experience of the health care personnel as a vital influence on the management of emergencies (Khan et al., 2018; Leinhos et al., 2014; Nyarko et al., 2015; Pusch, Bedane, Agosti, Carletto, Tiwari, Parvez, & Nkoka, 2016). Most organizations are built on the backs of experienced workers.

Ghanaian nurses obtained information on COVID-19 and learned about the dynamics of the virus, from multiple platforms including: WhatsApp, Medscape, Wikipedia, WHO, and Ghana Health Service platforms. In as much as sourcing for information is good, in times like this, not all the sources where they had the information are credible. Therefore, much of the information obtained might just be ordinary misconceptions and might not reflect the truth. This finding is in tandem with that of Aharon, Ruban, and Dubovi (2020) who found that nurses rarely used scientific standards to evaluate inconsistent information on COVID-19 in Israel. Also, Brennen, Simon, Howard, and Nielsen (2020) found that, during the pandemic, there has been misinformation from even higher authorities to the lower level and vice versa. The coronavirus infection is new to the world, and therefore information from one source only may not give the full picture, so in looking for information, one needs to evaluate the various sources and select the best.

6. Conclusion

Although studies have shown that, healthcare preparedness towards an emergency goes beyond just training. It includes well-structured health facilities and proper functioning of medical supplies, nurses in Ghana who are accepted to care for COVID-19 cases are prepared to do so through training and capacity building. There is the need, therefore, for the Ghana College of Nurses and Midwives to train nurses in emergency and disaster nursing specialties and specialty in infectious disease management.

CRedit authorship contribution statement

MI and JBPP wrote the original draft of the manuscript and methodology. L A did the conceptualization of the topic and writing review and editing. LAO and MAA did data curation. AAB who's name has been omitted from the manuscript did formal analysis.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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