

UNIVERSITY OF GHANA
COLLEGE OF HEALTH SCIENCES
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HEALTHCARE WORKERS' PERCEPTION OF QUALITY OF ROUTINE CARE
DURING COVID-19 PANDEMIC AT THE GREATER ACCRA REGIONAL
HOSPITAL.

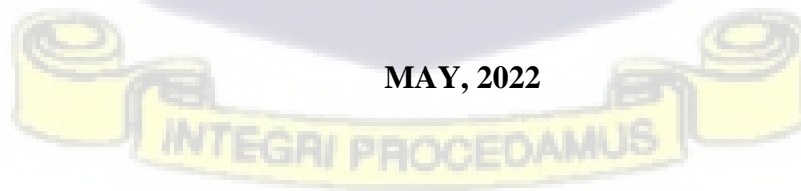
BY

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THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF
GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE.

MAY, 2022



DECLARATION

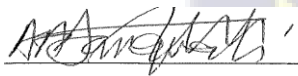
I, Anita Esi Kittoe, confirm that this dissertation presented towards the award of Masters in Public Health degree is my original work and has not been presented for any examination in any other institution. Where references have been used, these have been cited accordingly.



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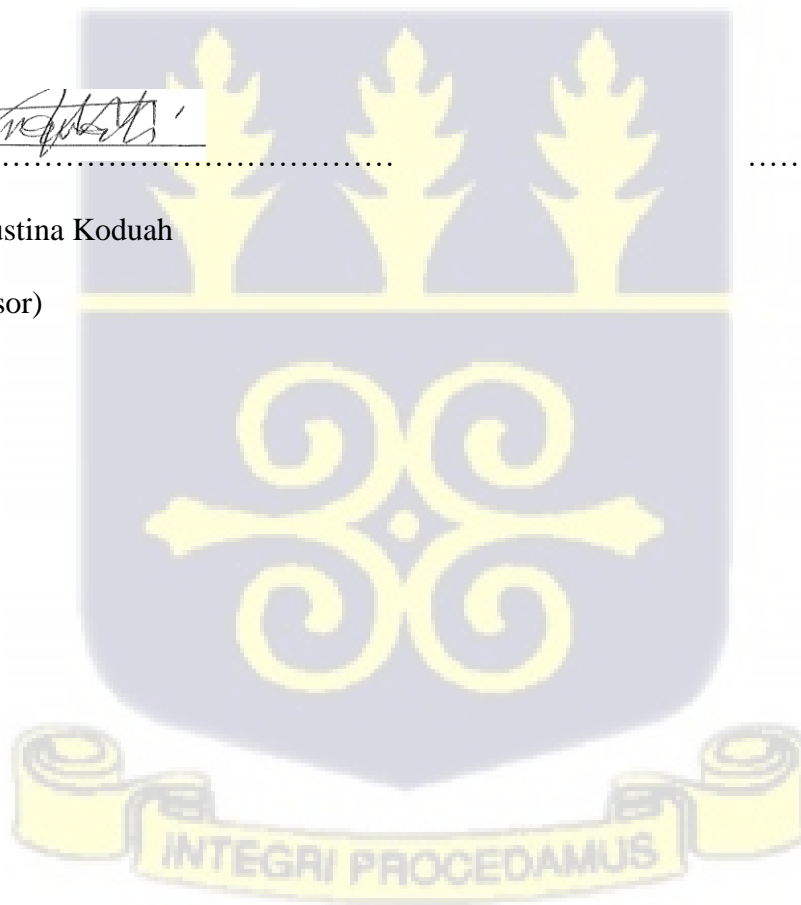
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Dr. Augustina Koduah
(Supervisor)

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Date



DEDICATION

This thesis is dedicated to the Almighty God who ceaselessly watches over my soul and permits all great and good things to happen to me. To my mum and dad, my siblings, Gertrude, Francisca, Derrick and John for all the encouragement and support. Mr. Samuel and Ebenezer Quayson for their immeasurable help and a special one to my niece, Naana Esi Oduro Ocran (NEOO). I love you all.



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We can go fast on our own but we have always reached farthest with positive and resourceful people who are willing, ready and joyful about our progress.

To my supervisor, Dr. Mrs. Augustina Koduah for her consistency and availability at all times in guiding me from the concept building to the successful write-up of this study, words may not be enough to express how grateful I am. Professor Moses Aikins and Dr. Mrs. Genevieve Aryeetey all of the School of Public Health-University of Ghana for their advice and directions during the planning stage of this study as well as Mr. Eric Nsiah-Boateng of the National Health Insurance Authority.

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To the NMIMR 146 fraternity especially Ms. Eunice Amoako and Mr. Kwesi Akowuah Atwere, I am so glad and happy our paths crossed and thankful for all the support during my quest for this MPH degree.

And finally, to staff of the Greater Accra Regional Hospital for their availability and willingness to be part of the study and my MPH colleagues, thank you and God bless you.



DEFINITION OF TERMS

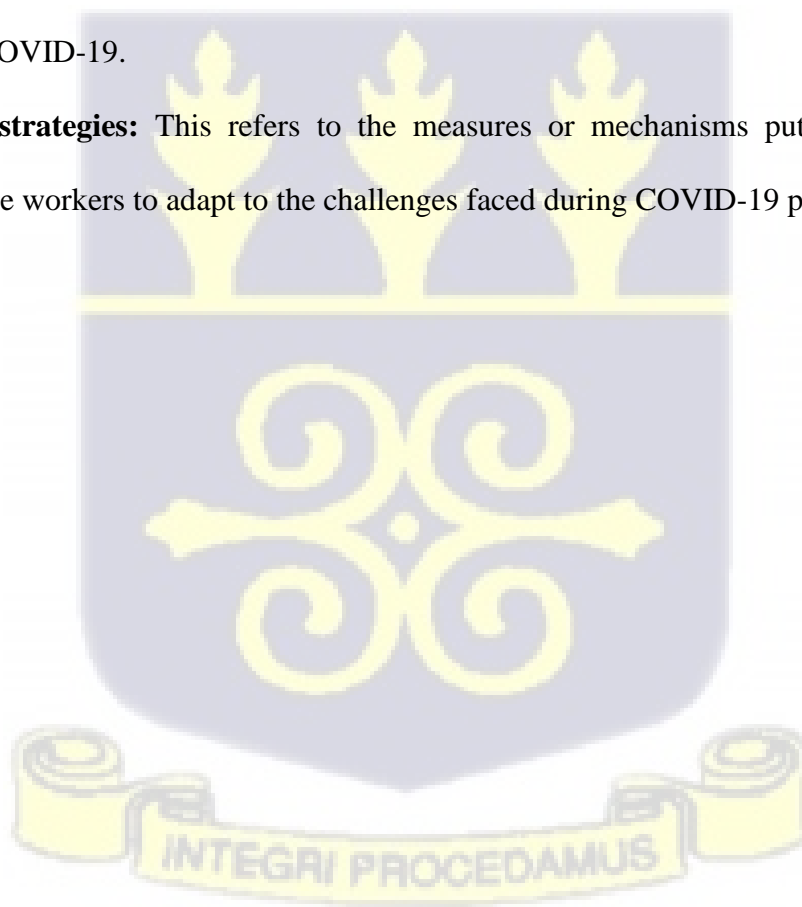
Routine care: This refers to a patient's first point of contact to healthcare to prevent future illness or control health conditions from worsening and treatment thus, optimize successful health outcomes (Halcomb et al., 2020; Post et al., 2014).

Quality of care: Quality of care is the extent to which health care services for people increases the likelihood of desirable health outcomes (IOM, 2013).

Perception of quality of care: This refers to the healthcare workers' opinion on the working environment and the health services delivered to patients accessing routine care during COVID-19.

Challenges: This refers to adverse situations that the healthcare workers experienced during COVID-19.

Coping strategies: This refers to the measures or mechanisms put in place by the healthcare workers to adapt to the challenges faced during COVID-19 pandemic.



ABSTRACT

Background: Coronavirus Disease-2019 is a global pandemic which has claimed the lives of millions of people due to its severity and fast rate of infection through droplets from person-to-person. Though it was first reported in China (SARS-COV 2 and MERS), it has had its toll throughout the world and caused inconsistent flow and placed pressure on the smooth running of healthcare globally including Ghana. Healthcare professionals including routine healthcare workers have been overwhelmed with the emergence of COVID-19 and have faced challenges like psychological trauma, stress, lack and unavailability of personal protective equipment, stigmatization and neglect among others.

Objective: The study assessed healthcare workers' perception of quality of routine care delivery during COVID-19 pandemic in the Greater Accra Regional Hospital.

Methods: The study employed a descriptive cross-sectional design using a qualitative approach. Sixteen in-depth interviews were conducted with the facility healthcare staff. Participants were purposively selected from the emergency, general Out Patient, pediatric, laboratory, pharmacy and family medicine departments. Recorded interviews were semantically transcribed and coded into themes which were deductively developed based on the study objectives. Data was analyzed using the NVivo version 13 software.

Results: Despite the advent of COVID-19, healthcare workers continued to deliver routine healthcare services including checking of vital signs. They also continued to deliver their usual services like emergency, surgical and referral cases during the pandemic. Workers had varied perceptions of the quality of routine healthcare services delivered during this period. With the exception of those few health workers classified as frontline staff, most were not given any motivational incentives. There were also challenges with logistics as

well as increased workload in the delivery of routine services. More so, healthcare workers suffered some psychological and emotional challenges such as stress, fear and panic and others who knew about their profession stigmatized them. Some staff learned how to make sanitizers on their own and also got the opportunity to familiarize themselves with telemedicine as a means of coping with COVID-19.

Conclusion: The findings highlight the need to pay extra attention to routine services even under pandemics as healthcare providers delivering such services are also challenged with psychological, logistics and staff strength issues for the effective delivery of services. There is therefore the need to train people to specifically take care of public emergencies and keep a good staff strength to attend to routine services in such cases. The use of telemedicine or tele-consultation in our health systems in order to reduce the pressure and psychological challenges that mounts on healthcare workers as a result of face-to-face interactions with patients during pandemics is strongly recommended.

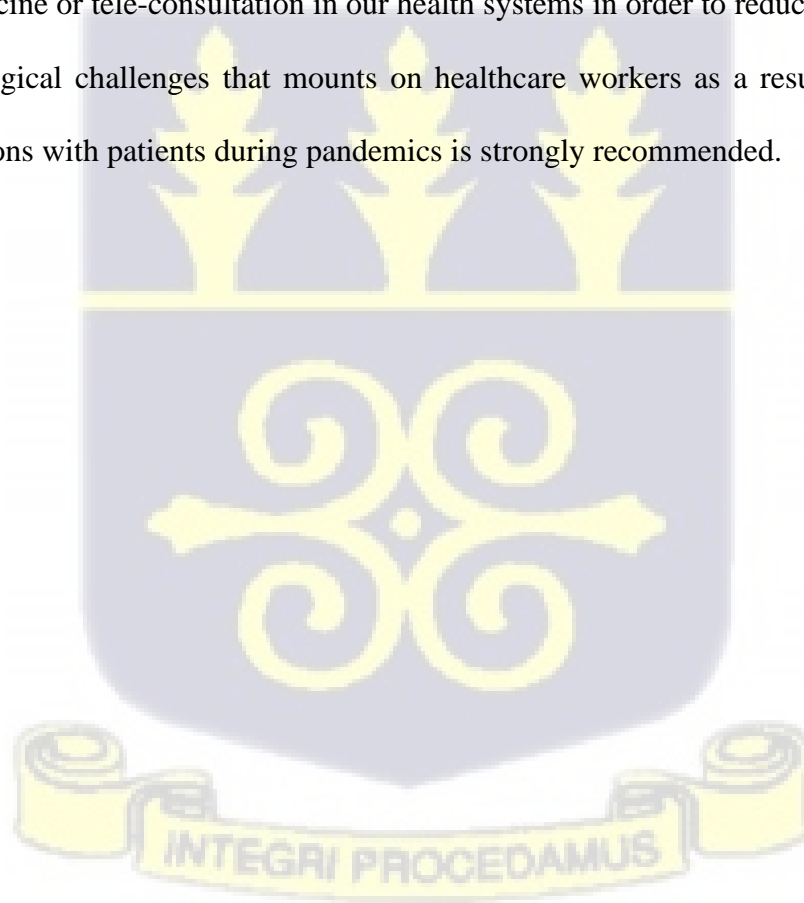


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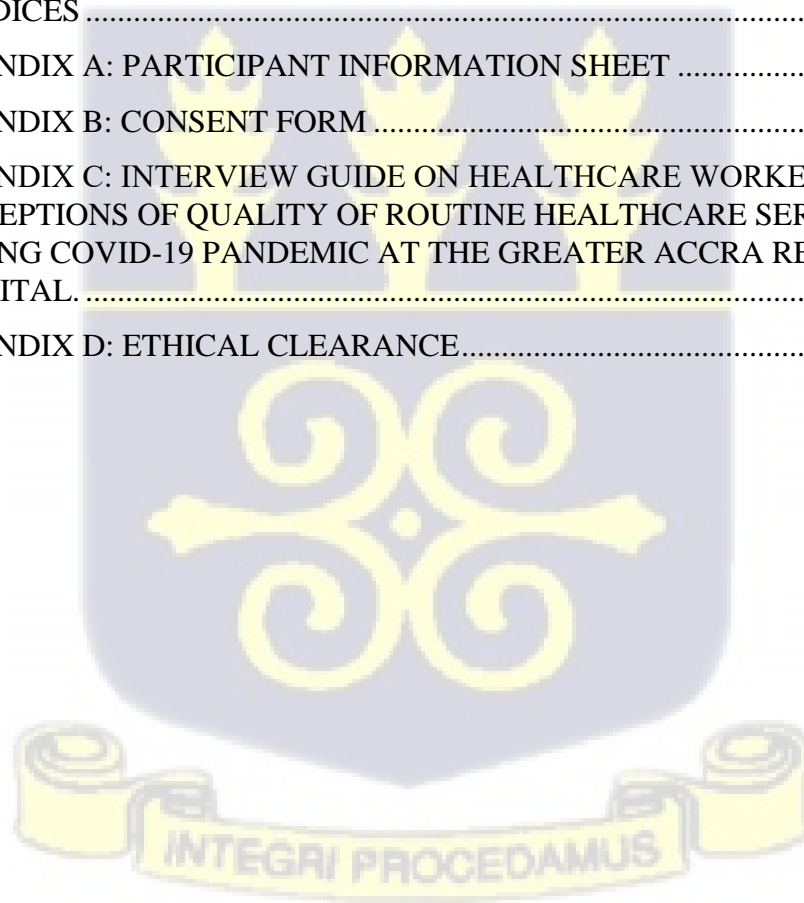
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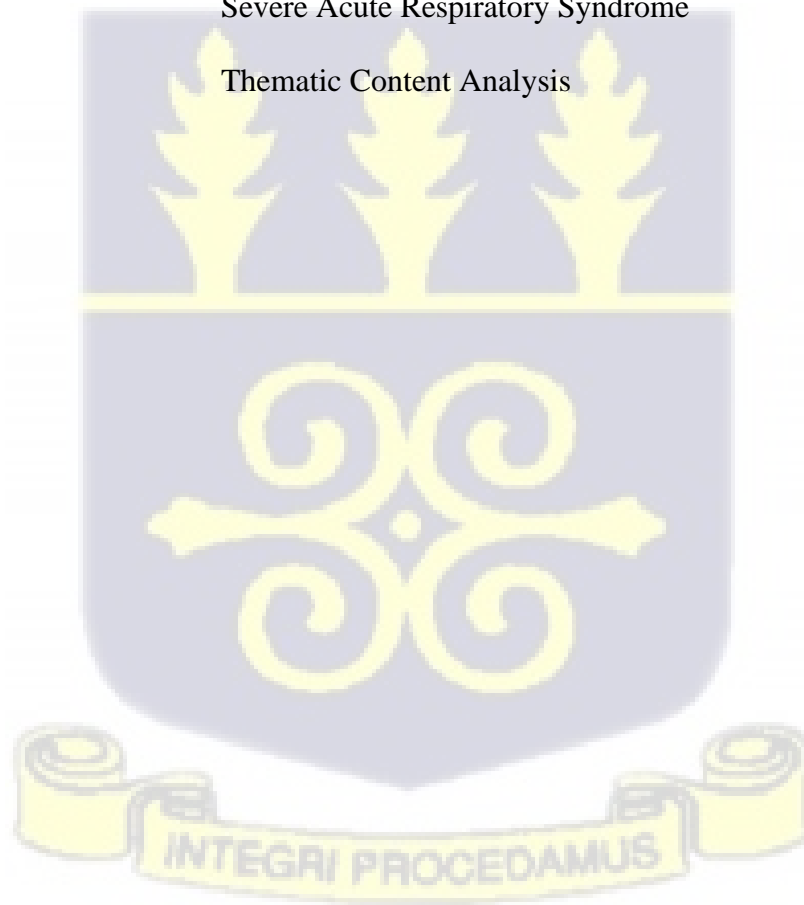
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LIST OF ABBREVIATIONS

COVID-19	Coronavirus Infectious Disease, 2019
CVD	Cardiovascular Disease
GARH	Greater Accra Regional Hospital
GHS-ERC	Ghana Health Service Ethics Review Committee
HCW	Healthcare Workers
MERS	Middle East Respiratory Syndrome
NHIS	National Health Insurance Scheme
PPEs	Personal Protective Equipment
SARS	Severe Acute Respiratory Syndrome
TCA	Thematic Content Analysis



CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND TO THE STUDY

Coronavirus disease, 2019 is a respiratory infection and was first detected in China. Severe Acute Respiratory Syndrome (SARS-CoV-2) which was previous known as 2019 novel coronavirus is spread human-to through human droplets or direct contacts (Lai et al., 2020). It rapidly spread throughout continents and set an unusual demand on healthcare system and delivery globally in March, 2020 (Davis et al., 2022). Globally, cases reported as at 22 June, 2021 was about 177 million (WHO, 2021). Healthcare professionals have been identified as essential in the fight against all forms of viral diseases including COVID-19 (Belfroid et al., 2018). Also, they are those who are actively engaged in the process of providing care for patients with COVID-19 including all other health services (Okediran et al., 2020; Palacio et al., 2020).

Nonetheless, the pandemic has fast evolved and has stressed healthcare systems affecting 211 countries and regions including Ghana (Amu et al., 2022). Current research from different countries have shown that, the pandemic has psychological effects on healthcare workers, as well as indicated a positive emotional response which affected the smooth delivery of routine health care (Liu et al., 2020; Salway et al., 2020; Song et al., 2020; Sun et al., 2020).

The pandemic made these health professionals strategize on how to deliver needed healthcare (Abraham et al., 2021).

For example, prenatal care in the United State consists of fewer in-person visits to the hospital as pregnant women are encouraged to use blood pressure cuffs and scales in their houses if they happen to have them. Studies had encouraged some healthcare workers to reduce the overall number of in-person visits to five visit (Baum et al., 2021; Bokolo, 2020; Wosik et al., 2021). Other services such as physical examination, ultrasound had been merged into a single visit whilst relying on telehealth for additional check-ups (Murphy, 2020). It must be stated that, in Africa and Ghana precisely, we do not have the requisite infrastructure to engage in reliable telehealth.

In Africa, countries like Mozambique had had to limit the number of prescribed prenatal visits to three instead of the WHO's recommended of eight visits (Murphy, 2020). Of course, concerns have been raised that, this could lead to negative impacts on women's health when they miss out on these crucial visits (Murphy, 2020). African countries have used old tools and approaches in new ways, developed and adapted new technologies, and creatively used limited resources (Oppong et al., 2021). COVID-19, has taught Africa new ways of dealing with healthcare issues, for example, self-diagnostic tools in Angola, contact tracing apps in Ghana and mobile health information tools in Nigeria whilst considering how to maintain the economy to maintain a robust healthcare sector (Oppong et al., 2021). This, to a larger extent has deliberately or inadvertently introduced some significant changes into the running of routine care services (Oppong et al., 2021; WHO, 2020; Wu et al., 2020).

Routine services are those common health needs regularly sought after by clients of health facilities and provided by health providers. They are services given to patients that are safe and helps to avoid health status deterioration but rather optimizes successful

outcomes (Post et al., 2014). Routine health services are the primary healthcare delivered by healthcare professionals to patients or individuals who need and seek healthcare to either prevent or control health conditions from worsening or deteriorating (Halcomb et al., 2022). These range from physician consultancy services, blood pressure and diabetic check-ups among other services. Routine care simply refers to primary care that is preventive in nature (Halcomb et al., 2020; Post et al., 2014). Tests carried out during routine healthcare are done in order to assess the health status of the patient. This basically is aimed at preventing the onset of illness and to study, examine and control the exacerbation of some already existing health conditions. It is apparent that such services could not have been curtailed due to the pandemic as they are equally essential in maintaining a healthy population (WHO, 2020).

Healthcare workers delivering routine healthcare and not attending to COVID-19 patients had their employment threatened or terminated which adversely could go a long way to affect their livelihood, their family and could cause some psychological stress (Halcomb et al., 2022). Studies have shown that healthcare workers faced high levels of depression, anxiety, insomnia, distress or obsessive compulsive disorder (OCD) symptoms which affected service delivery (Chung & Yeung, 2020; Huang & Zhao, 2020; Xu et al., 2020). Also, chronic disease managements and routine checks decreased during COVID-19 (Halcomb et al., 2020).

Majority of affected countries adapted lockdown and restrictions during the peak of the pandemic in their quest to minimize the fast spreading of the virus. It is against this backdrop that this study is designed to explore healthcare workers' perception of quality

of routine healthcare delivery during COVID-19 pandemic at Greater Accra Regional Hospital.

1.1 PROBLEM STATEMENT

Healthcare professionals are essential in the fight against all forms of viral diseases including COVID-19 (Belfroid et al., 2018). However, the outbreak of COVID-19 has placed incredible pressure on the healthcare professionals (Gordon et al., 2020). They are faced with numerous challenges during COVID-19 (Okediran et al., 2020). There is a high workload and multiple psychosocial stressors due to COVID-19 which may affect the mental and emotional health of frontline workers (frontline healthcare workers are the first point of contact for all health concerns to the healthcare system) leading to burnout symptoms (Hossain & Bhattacharya, 2020; Pascarella et al., 2020). Data on the accurate number of healthcare workers who lost their lives as a result of COVID-19 infection maybe limited but a study shows that as at February about 3387 of healthcare workers from China were infected and some had died after a period of time (Beyazadam & Alimoğlu, 2020). This might have propounded the psychological trauma that healthcare workers including those attending to routine services may have faced during the COVID-19 pandemic. These tragedies can go a long way to affect other healthcare workers, their families and the functioning of the health system at large as a huge number of expertise were being infected (Erdem & Lucey, 2021). Healthcare professionals manage critical issues such as lack of hospital facilities, personal protective equipment, exhausting working hours, fear of contagion and spreading the virus which heightened as little knowledge was known about the coronavirus (Palacio et al., 2020). Amidst the pandemic, healthcare workers do not only deliver COVID-19 related services but still deliver routine

services which safeguards the entire population as pandemics persist (WHO, 2020; Wu et al., 2020).

1.2 JUSTIFICATION OF THE STUDY

The COVID-19 pandemic has resulted in an influx of research and media coverage about the impact of the COVID-19 pandemic on healthcare workers and their frontline experiences. It has also stirred some researchers to review the literature of HCWs' experiences from past infectious disease outbreaks and draw comparisons to the COVID-19 pandemic. However, many of these studies have focused specifically on the psychological impact on healthcare workers providing services during infectious disease outbreaks, rather than approaching it more broadly (Busch et al., 2021.; Kisely et al., 2020.; Preti et al., 2020). Arguably, there has not yet been a qualitative research in Ghana exploring the perception of quality of care of routine healthcare delivery during the pandemic. The findings of such a study can help the Ghana health service to rapidly adapt existing protocols and support resources to ensure they are appropriately tailored to the needs of the healthcare workers during pandemics.

The Africa Centre for Disease Control and Prevention in partnership with the WHO and African countries established the Africa Task Force for Novel Coronavirus on February 3, 2020. The Task Force had six strategies including laboratory diagnosis, surveillance (screening at points of entry and cross-border activities), prevention and control of infections in health care facilities; among others. Most countries are enforcing these strategies with assistance from Africa Centre for Disease Control and Prevention, WHO, and development partners. However, as there are for other countries dealing with the COVID-19 epidemic, there are several challenges. In a recent study by Moyo et al., (2022)

on Frontline healthcare workers' experiences of providing care during the COVID-19 pandemic in Bulawayo, Zimbabwe, the study findings revealed inadequate preparation and training of healthcare providers before the commencement of duty, resource-related challenges and a lack of support as significant experiences of healthcare providers. Even though Zimbabwe share similar characteristics with Ghana as both are sub-Saharan countries to study the situation as peculiar to Ghana, this study sets out to specifically explore among healthcare workers in Ghana the challenges to the quality of routine healthcare during the pandemic to identify, document, and address such challenges in view of future pandemics.

In a study by Szcześniak et al., (2020) which looked at “The SARS-CoV-2 and mental health: From biological mechanisms to social consequences”, the study, as part of its conclusion, urged approaching the pandemic based on lessons learnt from previous outbreaks of infectious diseases and biology of other Coronaviruses as they provide the only grounds for developing public mental health strategies. It is thus imperative to also document the coping strategies adopted by healthcare workers in Ghana during this pandemic.

This study needs to be done to serve as an exploratory study for healthcare workers' experiences (strategies adopted to continue providing routine services to patients) at the occurrence of the COVID-19 which was of great public health concern. Since an outbreak of a pandemic disorganizes and disrupts the smooth running of activities particularly in the health sector which includes routine health services, it therefore calls for reorganization of the health system to cater for and meet up with the challenges pandemics pose to health (WHO, 2020).

Findings from the study will help the Government of Ghana and the Ministry of Health specifically to train voluntary or temporary workers who would see to routine services delivery across all health facilities in the country thereby affording them the expertise and skills to contribute to a balanced health system in the presence of unforeseen occurrences like COVID-19 while frontline workers attend to issues of the pandemic. Provision of requisite skills, regular and efficient training of healthcare workers will bridge the gap of the impacts of outbreaks by limiting the high levels of unpreparedness exhibited in the face of such public health emergencies.

The data will be significant for the public, private hospital management and government to prepare interventions in the form of training already existing healthcare workers or volunteers beforehand for any outbreak of communicable diseases and to improve health systems standards in coping with such occurrences.

Additionally, the results from the study will highlight the challenges faced by healthcare workers and their influence on routine care delivery and therefore inform the Ministry of Health and the Ghana Health Service to create an enabling environment to reduce the burden on healthcare workers due to the pandemic. This will help address the already existing health concerns and reduce pressure on healthcare workers during outbreaks. The absence of literature in Ghana was a gap to explore, hence a justification for the study.

1.3 RESEARCH OBJECTIVES

The objectives of the study were divided into general and specific as stated below.

1.3.1 General Objective

The general objective of the study was to explore healthcare workers' perception of the quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital - Ghana.

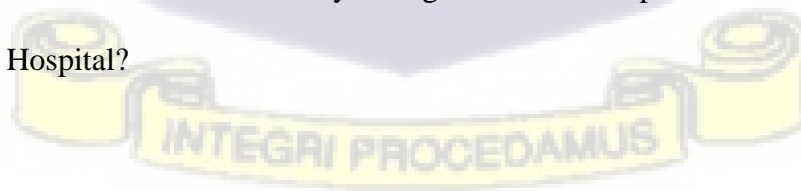
1.3.2 Specific objectives

The following specific objectives were set to address the general objective:

1. To explore healthcare workers' perception of the influence of structural factors on the quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital.
2. To explore healthcare workers' perception of the influence of process factors on the quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital.
3. To explore healthcare workers' perception of challenges to quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital.
4. To explore healthcare workers' perception of coping strategies to the challenges to quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital.

1.3.3 Research questions

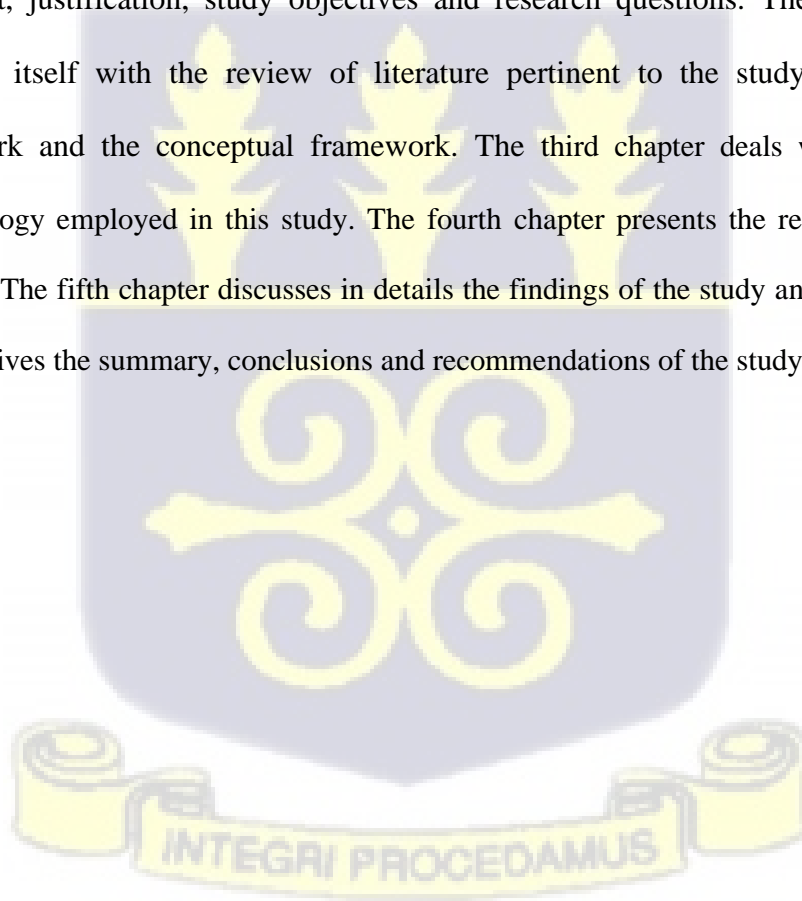
1. What is healthcare workers' perception of the influence of structural factors on the quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital?



2. What is healthcare workers' perception of the influence of process factors on the quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital?
3. What is healthcare workers' perception of challenges to quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital?
4. What is healthcare workers' perception of coping strategies to the challenges to quality of routine healthcare delivery during the COVID-19 pandemic at the Greater Accra Regional Hospital?

1.4 OUTLINE OF THE STUDY

This study is organized into six chapters. Chapter one presents the introduction, problem statement, justification, study objectives and research questions. The second chapter concerns itself with the review of literature pertinent to the study, the theoretical framework and the conceptual framework. The third chapter deals with the research methodology employed in this study. The fourth chapter presents the results of the study findings. The fifth chapter discusses in details the findings of the study and finally the sixth chapter gives the summary, conclusions and recommendations of the study.



CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0 INTRODUCTION

This chapter seeks to thoroughly review studies on quality of routine healthcare. It shall delve into the perception of quality of care, challenges healthcare workers face during routine care delivery and strategies they adopted in coping with those challenges. It will again explain into detail the theoretical and conceptual frameworks that forms the basis of this study.

2.1 QUALITY CARE

Quality of care is elusive in its meaning (Donabedian 2005). It can refer to how well equipped health staff provide health services, the availability of all necessary health care supplies, consumables, equipment, accessibility and availability of health service and a lot more. In simple terms, quality of care aims at achieving and sustaining universal healthcare, for improving health outcomes (Escribano-Ferrer et al., 2016). Quality of care is often top-most on the agenda of policymakers nationally and internationally (Busse et al., 2019).

Quality of care defined by Donabedian is “the ability to achieve desirable objectives using legitimate means” while the Institute of Medicine also defines the quality of care as the extent to which health care services for people increases the likelihood of desirable health outcomes (Donabedian, 1980; IOM, 2013 & Busse et al., 2019). It is a major factor that could explain the shortfall that has made several countries in Africa including Ghana not meet the SDG 3- Good health and wellbeing. Several studies have examined the quality

of care in Ghana, for example in trauma, hypertension, maternal and neonatal care and malaria and have found some problems of lack of adequate equipment, poor staff attitudes and many others (Lloyd-Sherlock, 2014; Escribano-Ferrer et al., 2016).

2.1.1 Quality of routine healthcare

Routine health care is simply usual health care and it's also known as preventive care which ranges from regular check-ups, consultation and health counselling, etc. according to the L.A. Care Health Plan. Routine health care helps in early detection and treatment of chronic diseases like hypertension, cancer, diabetes and many other health conditions (Samuelson, 2021). Health related behaviors, beliefs and knowledge influences peoples' willingness to seek routine health care (Anderson, 1995). Individuals who are skeptical about their medical care have a reduced chance of seeking health care and vice versa. Similarly, knowledge on one's health status or the need for consistent health care increases one's likelihood to seek routine healthcare (Fiscella et al., 2002).

2.2 HEALTHCARE WORKERS' PERCEPTION OF THE INFLUENCE OF STRUCTURAL FACTORS ON THE QUALITY OF ROUTINE HEALTHCARE

In a study to examine the experiences of frontline healthcare workers during the COVID-19 pandemic in Nigeria, emerged themes showed that, healthcare workers experienced challenges working in the COVID-19 environment and working with limited personal protective equipment. These structural factors influenced healthcare workers' willingness to attend to patients who were seeking routine health care. The fear to contract the coronavirus interfered with service delivery (Okediran et al., 2020).

Vindrola-Padros et al., (2020) explored the perceptions and experiences of healthcare workers in relation to COVID-19 and care delivery models implemented to deal with the

pandemic in UK. Results showed that, limited personal protective equipment and lack of routine testing increased distress and anxiety among healthcare workers. And even when personal protective equipment (PPEs) were available, it was in incorrect size and created discomfort as it accumulated a lot of heat in it. However, respondents reported the establishment of well-being support structures that helped them cope with the coronavirus situation.

In consonance with the above study, Billings et al., (2021) explored the experiences of frontline healthcare workers and their views about support during COVID-19 and previous pandemics. Results showed that, inconsistent flow of information on COVID-19, insufficient resources and inadequate personal protective equipment hampered service delivery. There was also high workloads and long shifts that stressed the healthcare workers while many experienced stigmatizations.

2.3 HEALTHCARE WORKERS' PERCEPTION OF THE INFLUENCE OF PROCESS FACTORS ON THE QUALITY OF ROUTINE HEALTHCARE

Amador et al., (2020) evaluated the impact of COVID-19 pandemic on cancer patients in Spain. Results showed that, 44 out of the 78 departments implemented adapted protocols of which 44 (86.4%) performed COVID-19 triage. Twenty-six out of the 44 departments carried out on-site polymerase chain reaction tests for clinically suspected cases. There was a decrease in number of new cancer patients, total and mean number of biopsies. There was also a decrease in the number of patients visiting particular cancer care departments, radiation therapy and mean number of patients included in clinical trials. In total, the pandemic caused about 21% decrease in newly diagnosed patients. This is a major impact of the pandemic on routine health care delivery. The likelihood of mortality and morbidity in late diagnosis of chronic health conditions cannot be downplayed.

In another study, Kamposioras et al., (2020) investigated the perception of service changes impinged by COVID-19 on colorectal cancer patients. A survey was conducted to assess the patients' perception, experience of telephone or video consultation and the impact of COVID-19 on their mental health. Results showed that, majority (112) used telephone consultation while 6 used video consultation. Assessment scans (10%) were either delayed or cancelled and scan results were discussed on phone. Majority of them (90%) felt secured going to the hospital despite the COVID-19 while one-third of them were troubled about the negative impact of the pandemic on their cancer care and 80% were scared getting exposed. Lastly, patients still preferred face-to-face consultation (40%) and also preferred given the option to choose their future consultations (38%).

A study determined the impact of COVID-19 restrictions on routine immunization coverage in Karachi-Pakistan. The researchers compared data obtained 6 months before lockdown and data obtained after 6 months of the lockdown period. The total number of immunization for the baseline period was 701324 while 92492 of children were immunized during the lockdown. There was a drop in the mean number of daily immunization by 52.8% during the baseline compared to during the lockdown and was sharper at the early weeks of the lockdown. Averagely, 2734 children missed their daily routine immunization during the lockdown however, there was a steady increase in immunization coverage when the lockdown was lifted (Chandir et al., 2020).

Consistent with the above, Lusambili et al., (2020) explored the impact of COVID-19 on access to and utilization of reproductive, maternal, newborn and child healthcare among refugee women in urban Kenya, among 25 facility and community healthcare workers and 10 and 5 women attending antenatal and postnatal care services. Findings showed that,

pregnant women were more likely to use home services for delivery with the help of traditional birth attendants because of the fear of contracting the virus as they would be exposed to it at the health facility however this is not a sure way to protect and improve the chances of survival for both the mother and the baby. Economic challenges and lack of migrant-inclusive health system policies were other factors influencing deliveries at home and reduced use of health services.

Kim (2018) explored nurses' experiences of care for patients with Middle East respiratory syndrome (MERS)-coronavirus in South Korea, an in-depth with 12 (twelve) nurses. Results showed that some of the nurses who were ready to help in MERS wards, had to participate compulsorily and others were hesitant, trying to avoid going to work at the wards. Some nurses felt a call to duty and were positive in contributing for the wellbeing of the patients.

2.4 HEALTHCARE WORKERS' PERCEPTION OF CHALLENGES TO THE QUALITY OF ROUTINE HEALTHCARE

Lee et al., (2018) assessed the psychological impact of the Middle East Respiratory Syndrome (MERS) pandemic on healthcare workers and quarantined hemodialysis patients. Impacts of Event Scale-Review was statistically significant indicating that, healthcare workers who performed MERS-related duties exhibited a higher risk of post-traumatic stress disorder symptoms which persisted even after home quarantine. Healthcare workers being stressed which persisted even after quarantine means a reduced number of healthcare workers available for service delivery. This affected routine healthcare delivery with reduced staff number delivering services and the few available pressured.

Again, the emergence of the COVID-19 reduced patient-provider interactions and had a detrimental effect on health status of population especially patients having chronic conditions. This is a clear indication that the usual patient-provider communication was interfered with and affected the health status of patients. Among the chronic diseases, it was reported that Diabetes was the most affected by the COVID-19 with other impacts on chronic obstructive pulmonary diseases, hypertension, asthma, cancer, heart diseases while mental conditions of patients worsened (Chudasama et al., 2020).

Routine care for chronic diseases had been monitored through virtual-care framework affecting 40% of hospital admission for patients with stroke and acute myocardial infections with the occurrence of shortages of medicines to manage such conditions and change in lifestyle. Emergency visits by non-COVID-19 patients were also significantly affected (Kendzerska et al., 2021). Reduced monitoring for chronic diseases could lead to morbidity and in worse case mortality. This therefore heightens the detrimental effect of COVID-19 on chronic disease managements.

Javaid et al., (2021) explored the perception of women prenatal care during COVID-19 and the effect of the changes on pregnant women in the United States. Results showed that, there were emotional challenges, structural changes to the health system, behavioral changes and had impact on the perceived quality of care. Women showed anxiety and fear in accessing prenatal care as a result of the impact of COVID-19 on prenatal and delivery care. Reduced number of prenatal visits, adhering to COVID-19 protocols and changes in the provision of care also impacted the perception of care given to the women as in-person visits were cancelled or postponed.

2.5 HEALTHCARE WORKERS' PERCEPTION OF COPING STRATEGIES TO CHALLENGES TO THE QUALITY OF ROUTINE HEALTHCARE

A study assessed the impact of COVID-19 on routine care for chronic diseases from the healthcare workers' perspectives of 202 healthcare workers from Europe, South America, Asia, Africa, North America and Oceania (Chudasama et al., 2020). Results showed that, majority (80%) of healthcare workers were using either telephone or zoom for consultations and telemedicine and had adapted to the way of service delivery. Home visits and appointments cancellation for outpatients became the usual while only 14% continued face-to-face care for consultations. COVID-19 elevated the use of telemedicine while the traditional face-to-face was drastically reduced. This was a measure to reduce the spread of the coronavirus.

In Nigeria, a study conducted reported that though the pandemic had caused a lot of fear and trauma to the population, it however made health care workers devised strategies to cope with the challenges that the pandemic posed to them in their quest to provide healthcare services. Respondents felt the pandemic was a call to responsibility; their ability to stand up to their duties and the feeling that their effort was of immense help to their country (Okediran et al., 2020). This could be as a result of adopted strategies that health care workers were confident in shielding them from getting infected.

In consonance with the above study, Fung et al., (2020) evaluated pediatric type 1 diabetes telehealth visits during the COVID-19 and explored patients' perspectives of the usage of the visits. Results showed that, telephone and virtual visits were highly usable during the COVID-19 period. In general, majority of the respondents showed preference for future telehealth services while others also showed interest for continuous face-to-face health services delivery after COVID-19. However, there were no association between the determinants for influencing the type of visits over others.

A similar study examined the effects of the health system's response to the COVID-19 on chronic disease management. Results showed that, as a result of governmental restrictions on healthcare visits, the face-to-face care for people with chronic diseases decreased while telemedicine was elevated or highly utilized during the COVID-19 period due to the fear of getting exposed to the virus (Kendzerska et al., 2021).

Zhao et al., (2020) explored the experiences of 358 breast cancer patients on the Breast and Thyroid Surgery department at the outpatient and in-patient programmes at the epicenter of Wuhan, China. Additionally, breast cancer patients that visited the chemotherapy department were successively analyzed to explore their experiences of the strategies that were meted out to them. Results from the study showed a revolution of telemedicine through websites and phones. Through "Wechat" cancer patients in the Centre received routine follow-up as consultation was provided online. There were online prescriptions for patients who needed oral medications like oral chemotherapy drugs and patients who still needed face-to-face consultation and prescriptions were advised to adhere strictly to COVID-19 protocols and examined before getting access to the facility. Withal, patients who required surgery and periodic chemotherapy were taken through COVID-19 screening before they were granted admission to receive inpatient services

2.6 THEORETICAL FRAMEWORK: QUALITY OF HEALTHCARE MODEL

To understand the phenomenon under study the Donabedian Quality Healthcare Model (2005) was used in addition to the conceptual framework of the study. Avedis Donabedian developed the original model in 1966 and the model continues to be the dominant paradigm for assessing the quality of health care (Donabedian, 1966). The model provides a framework for examining health services and evaluating quality of health care.

According to the model, information about quality of care can be drawn from three categories: “structure,” “process,” and “outcomes.” Structure describes the context in which care is delivered, including hospital buildings, staff, financing, and equipment. Process denotes the patient-provider communication throughout the delivery of healthcare it might include waiting time, accessibility, motivation staff attitude, etc. Finally, outcomes refer to the effects of healthcare on the health status of patients and populations (Donabedian, 2005). The implication of the model is that, the structure measures have an effect on process measures, which in turn affect outcome measures.

With the emergence of COVID-19 which destabilized the healthcare system created an environment that was not friendly and favourable to healthcare workers and patients. By this, the policy on the strict adherence to COVID-19 protocols caused an environment which harboured a lot of fear as some if not most of the healthcare workers began to get infected with the coronavirus (Nguyen et al., 2020). The fast spread of the virus is believed to have heightened intensive preventive measures across countries and especially in healthcare facilities.

These structural indicators might affect the delivery of services, the process. It can reduce or increase waiting time. A healthcare provider may decide to see patients less than the usual time for the fear of getting infected if more interactions are entertained. It may again reduce hands-on examination for patients by healthcare workers and they may also distant themselves from patients. Healthcare workers receiving no or little motivation for working during COVID-19 may display lackadaisical attitude to work.

As hands-on examination reduces and waiting time prolonged, it may affect the health status of patients especially emergency and chronic conditions.

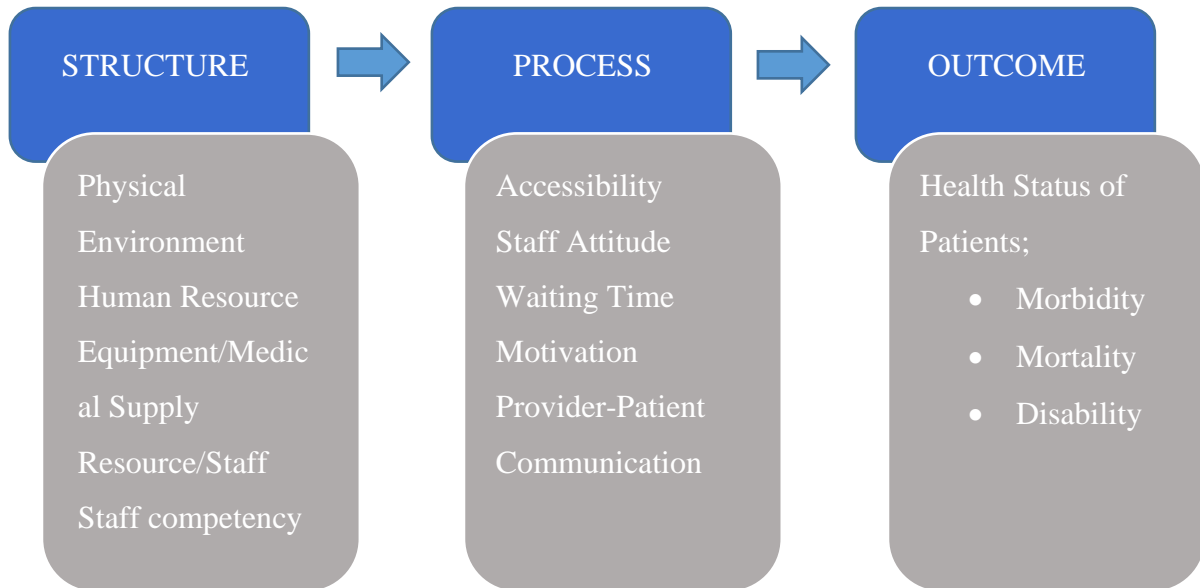


Figure 2.6.1: Donabedian Quality of Healthcare Model (2005)

2.7 CONCEPTUAL FRAMEWORK: HEALTHCARE WORKERS' PERCEPTION OF QUALITY OF ROUTINE HEALTHCARE

The structural factors that influence the quality of health care are the environment, Equipment/medical supply, human resources, staff competency and many more. These factors have the tendency to influence the quality of health care. For instance, the competence of healthcare workers determines their ability and expertise in healthcare delivery. Therefore, with unqualified personnel at work, there is the possibility of not giving appropriate healthcare services to patients (Kieft et al., 2014; Donabedian, 2005). Using the above example, an unqualified healthcare worker may have a poor attitude towards work and display a very weak patient-provider interaction. The experiences of healthcare workers are a function of some underlying or predisposing factors. Predisposing factors include the background characteristics. The background characteristics of the healthcare worker can also influence their attitude towards work and patients (Ghana Statistical Service, 2010). Background characteristics again can influence the type of routine service delivered by the healthcare worker (Mosadeghrad, 2014).

The process factors and type of routine care delivered by healthcare worker can influence their perception of quality of care, their challenges faced and their coping strategies adopted to the challenges encountered which can further affect the health status of the population/patients.

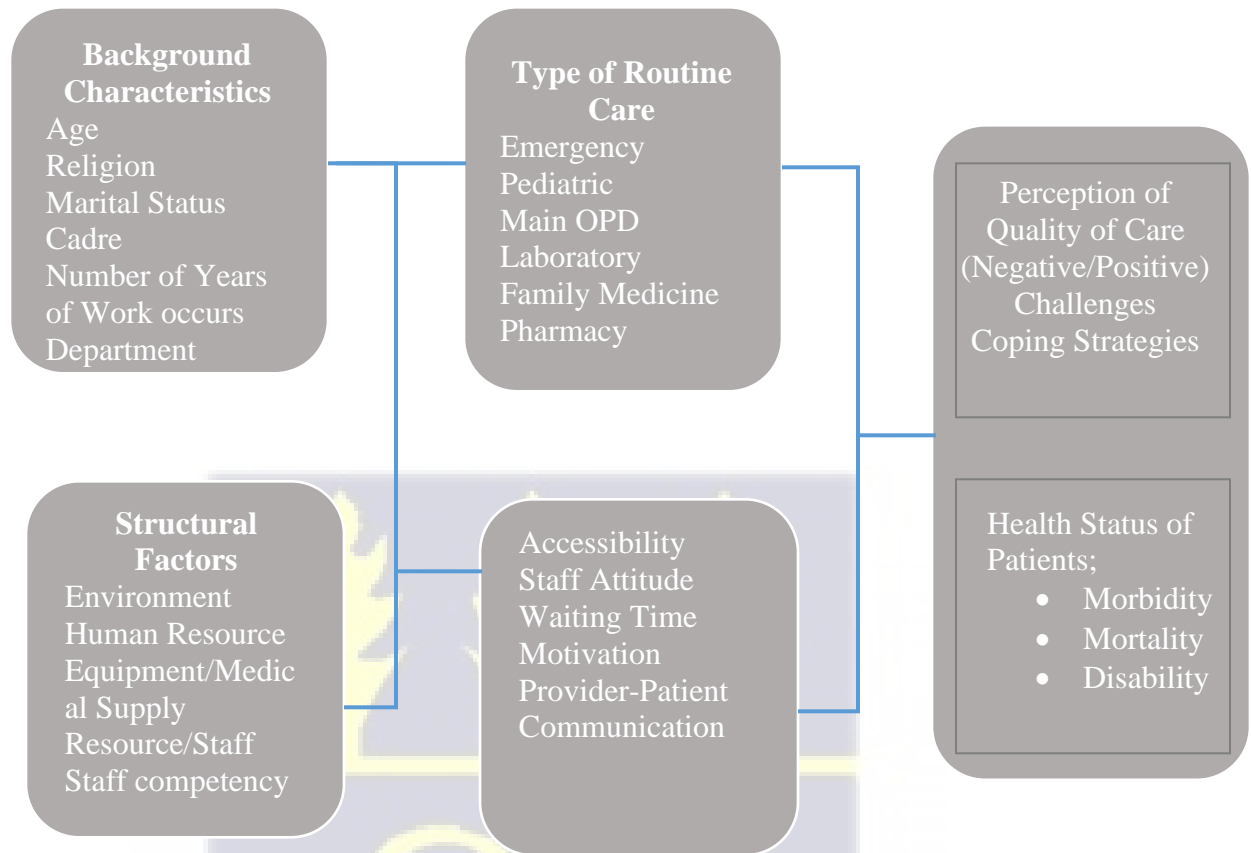


Figure 2.7.1 Conceptual Framework: Healthcare Workers' Perception of Quality of Routine HealthCare

2.8 SUMMARY OF THE CHAPTER

This chapter defined and analyzed quality of care and routine quality of care. The chapter also took into consideration review of literature concerning perception of quality routine healthcare. With detailed discussion of the Donabedian Healthcare model which concerns itself with the structures and processes involved in healthcare delivery and their outcome.

It finally touched on the conceptual framework which was designed to further explain the theoretical framework in line with this study. The subsequent chapter addresses the methodology adopted, data collection and data analysis for the study.



CHAPTER THREE

METHODS

3.0 INTRODUCTION

In this chapter, the methodology that led to the results are discussed. It includes the study design, study area, study population, sampling method, data collection method, data management and analysis. It also explains the ethical issues considered for the study.

3.1 PHILOSOPHYCAL ASSUMPTION

The study adopted the qualitative method approach using semi-structured in-depth interview guide because the researcher had no clear idea initially as to the responses that the interviewees provided. The interpretative approach to science which assumes that reality or practice has several meanings underlie the choice of research method applied (Elliott et al., 2005). Again, a qualitative approach because little is known about healthcare workers' perception of quality of routine care during COVID-19 and using the qualitative approach is very expedient to explore and delve deeper into the perception of the healthcare workers in their own words (Creswell & Poth, 2016).

3.2 STUDY DESIGN

This study used a descriptive cross-sectional facility-based approach which was designed to explore healthcare workers' experiences in delivering routine healthcare services during COVID-19 at the Greater Accra Regional Hospital formerly Ridge Hospital during the peak of the pandemic between March 2020-March 2021. This is a case study because it focuses on developing an in-depth description and analysis of healthcare workers' perception of quality of routine healthcare during COVID-19 at the Greater Accra Regional Hospital. COVID-19 is a new phenomenon that has affected the world at large

and little is known about healthcare workers' perception of the quality of care in Greater Accra Regional Hospital and therefore using case study to unearth the perception of the quality of care very appropriate for this study (Ciotti et al., 2020; Creswell & Poth, 2016). All healthcare workers' who provided routine healthcare services at the in-patient and outpatient departments during this period were eligible participants of this study. Data on the kind of routine services delivered, the influence of structural and process factors, healthcare workers' perception of the quality of care, challenges faced and strategies adopted by healthcare workers during the period were obtained through in-depth interviews while adhering to all COVID-19 protocols.

3.3 STUDY AREA

The greater Accra region was the most affected region in Ghana and therefore, the region was chosen as well as the Greater Accra Regional Hospital for the conduct of this study (Statista, 2020).

Geography and Demography

The Greater Accra Region has a land area of 1.45 of the country's total land area with a total land surface of 3,245 square Kilometres. It has majority of its population being Akan (39.7%) and Ga-Dangme (27.4%) with 44.6% being Christians (Ghana Statistical Service, 2010). (*About GAR – Page 5 – Greater Accra Region, n.d.*)

The Greater Accra Region is the second most populated region in Ghana and has a population of 4,010,054 which accounts for 15.4% of Ghana's population with 48.3% males and 51.7% females. More than 60% of its population are between ages 15-59 years. As at 18th May, 2020, the overall cases of COVID-19 in Ghana was 161,325 and Greater

Accra was the most affected region with about 55% of all the recorded cases in the country (Ghana Statistical Service, 2010; Statista, 2020; Ghana Health Service, 2021).

Economic Status

The Greater Accra Region has 2,428,054 of its working population economically active with 2,114,880 employed. Majority of the economically active population engage in sales and service occupations. More than 50% of the economically active population are self-employed while 32.6% are employees. Also, more than 50% of the employed population are males however, more females (62.6%) are self-employed than males (32.6%). The major occupation of the region is agriculture, animal husbandry, fishing and hunting and then sales work (Ghana Statistical Service, 2021).

Healthcare Provision

With 10 administrative health sub-districts, the Greater Accra Region has 6 district hospitals, 70 hospitals, 176 Community Based Planning and Services (CHPS), 277 clinics, 20 Health centre, 86 Midwife/maternity facilities, 12 Polyclinics and 2 Psychiatric hospitals. Of these types of health facilities, 1581 are government, 41 are Christian Health Association of Ghana (CHAG), 13 Quasi government and 52 private. The Greater Accra Region has a doctor population ratio of 2744 and nurse population ratio of 7722 (Ghana Health Service, 2015).

Greater Accra Regional Hospital

Greater Accra Regional Hospital (GARH/Ridge Hospital) is situated in Greater Accra Region. GARH was built in 1929 to provide healthcare for the British in the colonial era and became a district hospital after Ghana's independence in 1957. It is currently being transformed into a modern 620-bed capacity hospital due to the fast-growing population

in the country. GARH is located in the Osu-Klottey Sub-Metro of the Accra Metropolitan Area and has a total land area of about 15.65 acres (Ghana Statistical Service, 2010). Greater Accra Regional Hospital (GARH) administers routine services, emergency services, laboratory public health and other services as well as designated as one of the few treatment centres for COVID-19 (Sarkodie et al., 2021). For this reason, it was randomly selected from the three treatment centres (Ga East Municipal Hospital, Greater Accra Regional Hospital, and Tema General Hospital). The names of the three facilities were written in a plain A4 sheets and folded in the same way and kept in a container which was shaken several times. The researcher then randomly picked one of the three folded sheets which happened to be the Greater Accra Regional Hospital thus the selection of the facility for the study.



Below is the map of Greater Accra Region showing the Greater Accra Regional Hospital;

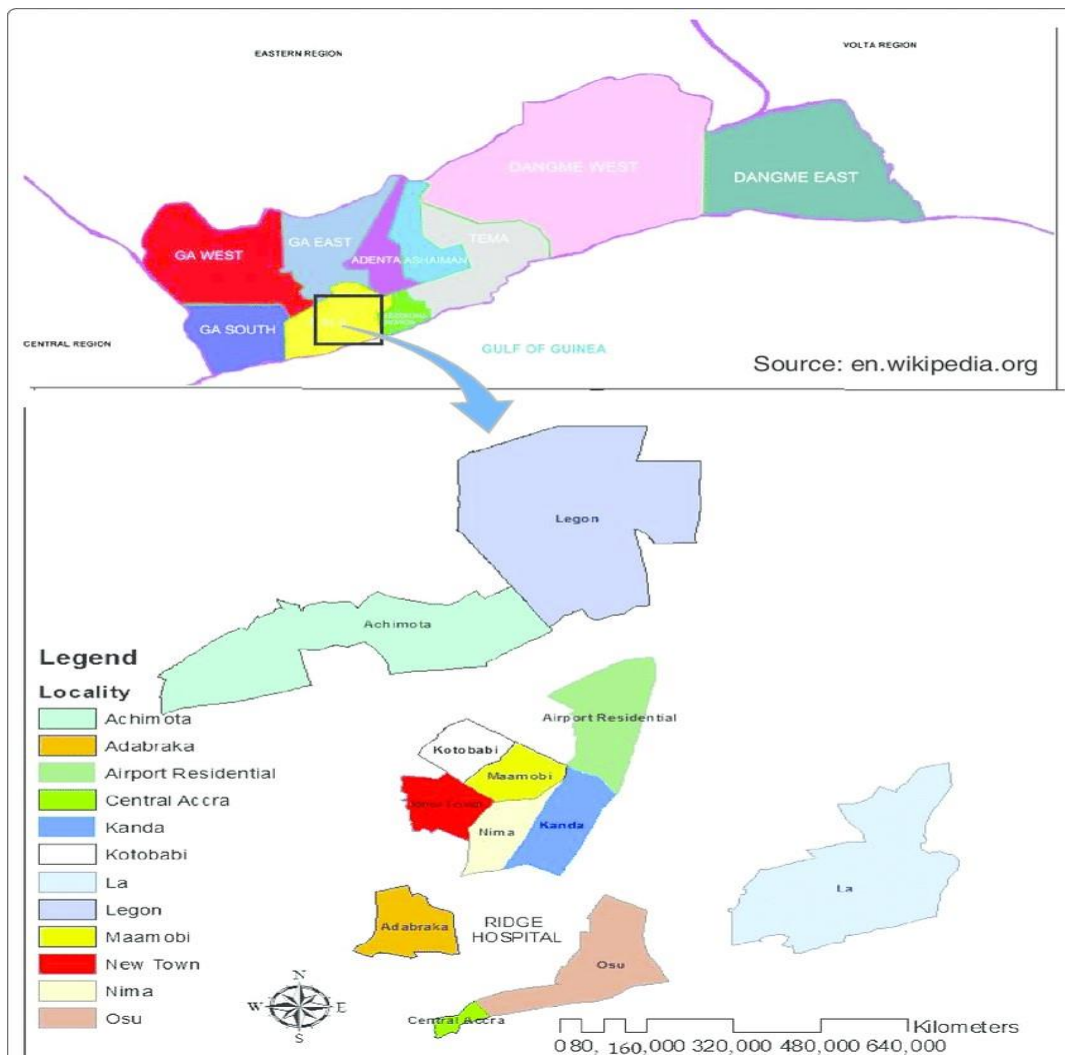


Fig. 3.3 Map of Greater Accra Region showing the localities within the catchment areas of the Greater Accra Regional Hospital.

3.4 STUDY POPULATION

The study population included healthcare workers both males and females who were delivering routine services in the main outpatient, emergency, pharmacy, pediatric, family medicine and laboratory departments at the Greater Accra Regional Hospital in Greater Accra Region during COVID-19.

3.4.1 Inclusion criteria

All healthcare workers (e.g. doctors, nurses, laboratory technicians, pharmacists, etc.) at GARH who were responsible for delivering routine healthcare for the main OPD, emergency, pediatric, pharmacy and laboratory departments were included.

3.4.2 Exclusion criteria

The exclusion criteria included:

- Healthcare workers who refused or declined participation.
- Healthcare workers who were too busy to engage at the time of the interview.
- Healthcare workers who were available after saturation.

3.5 SAMPLING STRATEGIES

This section presents the methods applied to sample participants in the study.

3.5.1 Sample size

Qualitative studies usually work best when smaller sample sizes are used because of the concept of saturation. According to Guest et al., (2006), about 92% saturation is reached when 12 interviews are conducted while Francis et al., (2010) posits that, most themes are identified within 6-7 interviews and saturation is reached at the 17 interview in one study. For this basis, the study recruited sixteen (16) healthcare workers from GARH and conducted interviews to elicit responses in tandem with the objectives of the study. Interviews were stopped when data saturation was reached; thus a point where no new ideas or emerged from participant responses (Glaser & Strauss, 1967; Vasileiou et al., 2018).

3.5.2 Sampling methods

Purposive sampling technique is a deliberate technique used in selecting participants based on specific qualities, experience, depth of knowledge, position, etc. in order to obtain appropriate information to achieve the study's objectives (Palinkas et al., 2015).

By this, the study purposefully selected sixteen (16) healthcare workers delivering routine care in the selected health facility in Greater Accra Region. Health care workers who worked during the COVID-19 pandemic were sort after. The research officer of the facility helped to list such healthcare workers in the 6 departments for the researcher and purposively, these health care workers were sampled.

- Main OPD- Four (4) healthcare workers were purposively sampled from the main Out-Patient Department of the Greater Accra Regional Hospital.
- Emergency Department- Four (4) healthcare workers were purposively sampled from the emergency department of the Greater Accra Regional Hospital.
- Pediatric Department- Three (3) healthcare workers were purposively sampled from the pediatric department of the Greater Accra Regional Hospital.
- Pharmacy Department- Two (2) healthcare workers were purposively sampled from the main pharmacy department of the Greater Accra Regional Hospital.
- Laboratory Department- Two (2) healthcare workers were purposively sampled from the laboratory department of the Greater Accra Regional Hospital.
- Family Medicine-One (1) healthcare workers was purposively sampled from the family medicine department of the Greater Accra Regional Hospital.

3.6 DATA COLLECTION METHOD

A total of sixteen (16) participants were recruited for the study where data was collected using face-to-face in-depth interviews for fifteen (15) respondents with one (1) through

zoom interview, using a semi-structured interview guide. A semi-structured in-depth interviews were employed for data collection because it was envisaged to be the most appropriate means to explore the perceptions of healthcare workers to produce results which were in tandem with the study objectives. Semi-structured in-depth interview because, it allowed the researcher to probe and ask follow-up questions to not coerce interviewees but to allow interviewees to freely share on the topic openly and broadly their perceptions in line with the study objectives.

In-Depth interviews

Interviews were scheduled and conducted out at the premises of the GARH facility; particularly in the offices of healthcare workers and available enclosed noise-free places in cases where offices were not accessible. Except one which was carried out via zoom, all other 15 interviews were face-to-face. Interviews were conducted in English, but the local Twi language was employed in explanations that respondents felt comfortable to make their expressions in. Averagely, an interview lasted for 30minutes.

Semi-structured interviews

This semi-structured interview guide [see appendix iii] to direct interviews during discussion was developed per the research questions. Respondents' age, sex, marital status, educational level, cadre or position, department (working area) and years of experience were noted in field note before the recording of the interviews started. Broad data generating questions were asked first and were followed up with probing statements like "why", "how", "tell me more", to enhance the depth of discussion. The interview guide had 6 different sections (Background characteristics, Perception of quality of care, Challenges posed by COVID-19, coping strategies, Support and General

Recommendations) with each section having an average of four (4) questions. Two (2) research assistants helped in the data collection, interview guides were thoroughly fine-tuned to accurately meet the aims of the study, the use of properly functioning recorders, and the demographic information of interviewees were documented as well. Healthcare workers who were delivering routine care at the Greater Accra Regional Hospital were interviewed on scheduled days at an enclosed noise-free area. Data was collected from 28th October 2021-16th November, 2021. Admittedly, some interview sessions were postponed a couple of times because some healthcare workers had very tight schedules which conflicted with the agreed interview schedules.

3.6.1 Quality assurance

Adequate measures were put in place to safeguard and assure data accuracy and quality without any bias. Two research assistants were employed and the two (2) research assistants were taken through the interview guide thoroughly for them to understand the items on the guide and the study objectives.

3.6.2 Rigour in qualitative data

No personal values were allowed to influence the data collection process and findings derived. Data was objectively recorded and transcribed verbatim (Seale & Silverman, 1997). This helped to ensure rigour in the study depicting a clear picture of healthcare workers perception of the quality of routine care during COVID-19 (Buchanan, 1992) And also, data obtained were systemically coded (Thematic analysis) with the help of the NVivo software version 13 which helped to ensure systematic analysis of the data.

3.7 DATA MANAGEMENT AND ANALYSIS

This section involves data processing and data analysis were recorded interviews were transcribed and analyzed thematically. Here, raw data are transformed into meaningful information using codes which are further developed into themes; meanings are developed from particular to general themes.

3.7.1 Data entry and processing

Since all interviews were conducted in English, the recorded interviews were transcribed by the principal investigator and the two (2) research assistants verbatim. Except in cases where Twi was used for some explanations, the principal investigator and the research assistants transcribed to English and together played and re-played the audios for 2-3 times to ensure that meanings were not altered during transcription and to ensure that transcripts reflected all that participants really meant. All recorded audios from the interviews were transcribed into word text version and checked with an interview guide to ensure that every piece of the data was validated. Responses were then grouped into the different themes; Kind of routine services, Perception of quality of care which influences structural and process factors, Challenges faced under COVID-19 and Coping strategies adapted to during COVID-19. The free trial NVivo software version 13 was used to confirm themes identified by use of the recurring words and phrases and were accurately reported. Codes were used to identify interviewees when quoted for example, MD-1-MD-3 means medical doctor, PMC-1-PMC-1 means pharmacist, LBTR-1-LBTR-2 means laboratory scientist and NRS-1-NRS-9 means nurses. And then, illustrative quotes and descriptive narratives were used to present the results.

3.7.2 Data analysis

Applying the conceptual framework, the top-down analytic strategy was used. The Thematic Content Analysis (TCA) technique was used in identifying, analyzing and reporting themes within data (Braun & Clarke, 2006);

Familiarizing with the data: all the responses were read over and over thoroughly by the principal investigator and the 2 research assistants before coding.

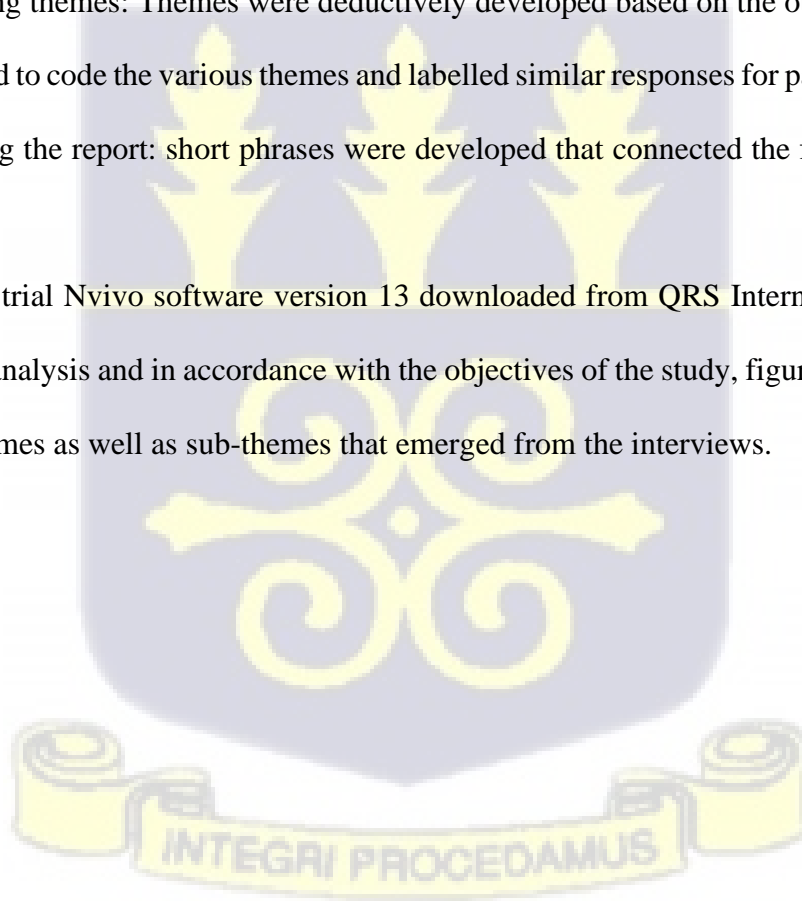
Generating initial codes: codebook (figure 3) was devised; using multiple coders (i.e. Principal investigator and two (2) peers), each entry was coded with as many codes as possible and discrepancies were worked on until all were successfully resolved.

Searching for themes: similar ideas or very different ideas shared by respondents which were relevant to research questions were coded.

Reviewing themes: Themes were deductively developed based on the objectives (Letters were used to code the various themes and labelled similar responses for particular themes).

Producing the report: short phrases were developed that connected the framework to the findings.

The free trial Nvivo software version 13 downloaded from QRS International was used for data analysis and in accordance with the objectives of the study, figure 3 illustrates the main themes as well as sub-themes that emerged from the interviews.



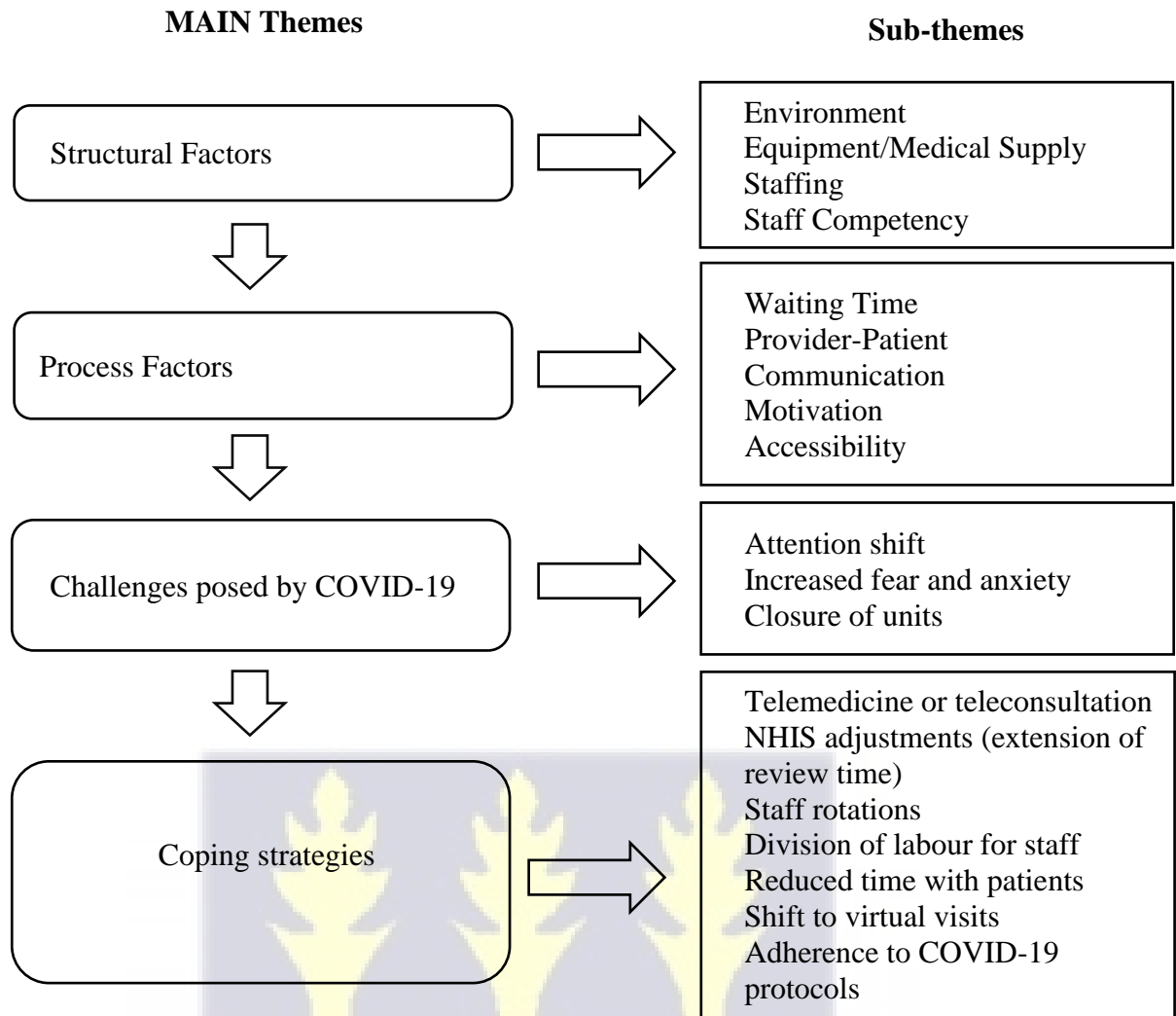


Fig. 4.2. Main Themes and Sub-Themes (Codebook)

3.8 ETHICAL CONSIDERATIONS

This chapter presents how ethical clearance was obtained before the conduct of the study as well as some ethical issues that were taken into considerations.

Ethical clearance

Research ethics are basically standards that determines what to do and what not to do in safeguarding the rights, safety and wellbeing of research participants. It is therefore very

important that regulatory bodies or institutions exist to balance competing rights, needs and interests of researchers and study participants (Page & Nyeboer, 2017).

Ethical clearance was obtained from the Ghana Health Service Ethics Review Committee (GHSERC) as a requirement to undertake a study among healthcare workers with reference number **21/443**. It took two (2) months before clearance to conduct the study was given.

Permission from study site

After ethical clearance was given for the conduct of this study, the researcher sought permission from the Greater Accra Regional Hospital presenting the ethical clearance letter and an introductory letter from the Health Policy, Planning and Management of the School of Public Health University of Ghana, Legon. Permission was given after necessary payments were made and data collection started right after that.

Participants' consent

Participants' consent (see appendix ii) were taken before data collection. The purpose of the study was explained to respondents. All respondents were made to sign a written informed consent except the interview conducted via zoom where consent form was sent to participant via mail and the signed form sent to the interviewer via mail. Respondents were allowed to ask any question about the study before an interview started.

Benefits and risk

Respondents' participation in this research did not warrant any material compensation, however, letters of appreciation were written to thank them for their participation. With their participation, they will be helping researchers in Ghana to understand the influence of COVID-19 on routine care delivery. Even though respondents did not benefit

immediately or directly from the study or in material forms, their responses were of great benefit to policymakers, to inform them on measures or strategies to adapt or adopt to safeguard Healthcare Workers in case of unprepared and unforeseen health problems or diseases as well as increase preparedness during future pandemics for other non-pandemic diseases or routine care services.

Respondents were not exposed to any physical risk as far as this study was concerned. However, there could be psychological stressors and anxiety during the period of the study, particularly during the interviews.

Interviews may cause anxiety, nervousness, fear and other psychological stress to participants. Therefore, participants were made to relax and to understand that the interview would be a friendly one and not strict and scary. They were encouraged to be free and open to be able to share their experiences with the research team.

Confidentiality and anonymity

Respondents were assured of the confidentiality of all information that they provided. Their identities are kept unknown and in situations that they would be referenced, their privacy would be strictly confidential. Respondents' privacies were assured as no identity would be traced to any of the interview transcripts and interference from others were very much avoided.

Voluntary withdrawal

Participation in the research was voluntary and respondents had to decide whether or not to participate or withdraw their consent at any time without any penalty which were explained to respondents in languages understandable to them before conducting interviews.

Compensation

There was no payment whether physical or in-kind to respondents. However, their involvement in the study (time and information given) were highly recognized and appreciated.

COVID-19 protocols

All COVID-19 protocols such as use of sanitizers, face masks, physical distancing among others were adhered to in order to ensure participants safety and welfare.

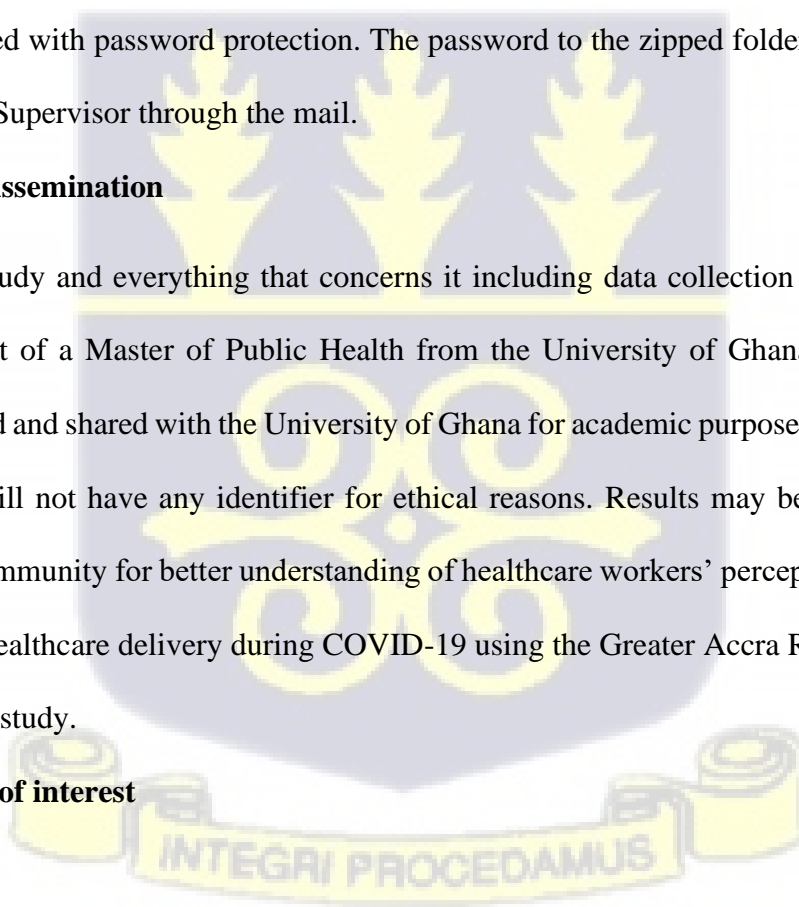
Data storage, security and usage

Audio recordings of interviews conducted were all uploaded unto google drive and the link shared via mail with the Supervisor. Transcripts and codebook were kept in a folder and zipped with password protection. The password to the zipped folder was also shared with the Supervisor through the mail.

Result dissemination

As the study and everything that concerns it including data collection was for a partial fulfilment of a Master of Public Health from the University of Ghana, results will be submitted and shared with the University of Ghana for academic purposes. All data/results shared will not have any identifier for ethical reasons. Results may be shared with the larger community for better understanding of healthcare workers' perception of quality of routine healthcare delivery during COVID-19 using the Greater Accra Regional Hospital as a case study.

Conflict of interest



The principal investigator had no conflict of interest regarding the conduct of this study. The study was for partial fulfilment of a Master of Public Health Degree from the University of Ghana.

Funding

This study was solely funded by the researcher with no financial support from any individual, body or organization.

3.9 SUMMARY OF THE CHAPTER

The purpose of the study was to assess the healthcare workers' perception of quality routine healthcare delivery during COVID-19 and this set to guide the method used in this research (Patton, 2002). Using a qualitative approach for this study, a semi-structured interview guide was designed and used for the data collection. Since this was a case study (descriptive cross-sectional facility based study) at the Greater Accra Regional Hospital, interviews were conducted at 6 departments of the facility with the following health staff; medical doctors, pharmacists, laboratory scientists and nurses. Using the purposive sampling method to deliberately select participants because of their availability at post during COVID-19, position and their in-depth knowledge on the subject.

To obtain the rich knowledge of participants, in-depth interviews were conducted; conversations with interviewees either face-to-face or via zoom. In-depth interviews were geared towards the researcher's need for data and were scheduled and took place at the interviewees' place of choice. Adhering to all COVID-19 protocols, interviews were conducted in English except one in Twi. Data collected were transcribed verbatim (English interviews), with the Twi interview translated into English before transcribing and then they were analyzed thematically. Approval was sought from the Ghana Health

Service Ethical Review Committee and together with an introductory letter from the University of Ghana School of Public Health, these documents were presented to the Research Office of the Greater Accra Regional Hospital for permission to carry on with the study at the facility.

The subsequent chapter discusses the findings of the study, giving detailed explanation using the theoretical framework.



CHAPTER FOUR

RESULTS

4.0 INTRODUCTION

This chapter presents results from the study which is divided into 5 sections; background of the interviewees, healthcare workers' perception of the influence of structural factors on the quality of care, influence of process factors on the quality care, challenges and coping strategies to the challenges of quality routine care delivery during COVID-19. The chapter gives detailed analysis of all data collected according to the four (4) main themes developed based on the study objectives which were supported by verbatim quotes from interviewees. Data was analyzed in tandem with the study objectives and the conceptual framework.

4.1 BACKGROUND OF INTERVIEWEES

A total of 16 healthcare professionals participated in the study to assess healthcare workers' perception of quality of routine service delivery during COVID-19 pandemic. Five of respondents were male and 11 of them were females totaling the 16 interviews conducted. The mean age of respondents was 41.75years with 33years and 52years being the minimum and maximum years respectively. Majority of respondents (15 out of 16) were married with 1 unmarried. All participants have had a form of higher education ranging from certificate (1), diploma (2), degree (5) to postgraduate (8). The respondents were from 6 different departments consisting of; 4 Emergency, 4 Main OPD, 2 Laboratory, 2 Pharmacy, 3 Pediatric and 1 Family Medicine. Mean number of years of

work was 15.5 number of years of work with eight (8) years and twenty-four (24) years being the minimum and maximum years of work respectively.

Table 4.1. Background of Interviewees(N=16)

Type of Interviewee	N
Healthcare workers' age	
40years and below	9
Above 40years	7
Sex	
Male	5
Female	11
Marital status	
Married	15
Not married	1
Highest level of education	
College and less	8
Masters	5
Postgraduate	3
Cadre	
Nurses	9
Laboratory scientist	2
Pharmacist	2
Doctors	3
Department	
Main OPD	4
Emergency	4
Pharmacy	2
Pediatric	3
Laboratory	2
Family Medicine	1
Number of years of work	
Less than 10years	3
10-20years	10
Above 20years	3

4.2 HEALTHCARE WORKERS’ PERCEPTION OF THE INFLUENCE OF STRUCTURAL FACTORS ON THE QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

The table below presents the routine services delivered by healthcare workers in the main OPD, emergency, pharmacy, pediatric, laboratory and family medicine departments during COVID-19. Healthcare workers reiterated the fact that the type of routine services they usually deliver did not in any way change except for the procedures that they went through before service delivery that changed.

Staff Department	Routine Service
Main OPD	Surgical and medical cases Eg. checking vitals for patients with Hernia, diabetes, hypertension, etc.
Emergency	Surgical cases Emergency cases Eg. respiratory distresses, epilepsy, excessive seizures and other medical condition.
Pharmacy	Emergency cases and referral cases.
Pediatric	Emergency, specialist and ward services.
Laboratory	Investigation at the blood bank, full blood count, sickling test, malaria test, lipid profile and microbiology, etc.
Family Medicine	Acute and emergency cases Reviews

Table 4.2. Routine services delivered by healthcare workers during COVID-19

When interviewees were asked about the type of services they delivered during COVID-19, majority of them said they attended to acute and emergency cases such as diabetes, hypertension, surgical cases, and road traffic accidents which were mostly referral cases since the facility is a referral hospital. On the basis of referral services, the results suggest no major changes in delivery as patients with chronic illness were scheduled for periodic visits. In effect, patients with chronic illnesses who were on a usual 3-months scheduled visits or follow-up at the facility, had had their follow-up time extended to six-months in order to reduce their exposure to the coronavirus. They were also given enough refills to sustain them for that much time. It was only in emergencies when patients needed immediate care or attention that they could visit the facility for healthcare workers to attend to them which was not a complete hands-on healthcare service due to the pandemic:

“We delivered emergency services, ward services.” (MD-1)

“So, the general consensus with the medical society is that we would see acute cases and emergencies right away.” (MD-2)

“We were still attending to our normal cases like the diabetic patients, hypertensive patients and surgical cases. Like the normal cases that we see.” (NRS-8)

“So, the hypertension, the diabetes, malaria cases. All the medical and surgical cases too were coming in.” (NRS-1)

Respondents also faced the unavailability of some logistics needed for the efficient delivery of routine health services to patients. Interviewees had challenges with the procedures in delivering services as well as logistics like personal protective equipment (PPE), sanitizers and drugs that were very salient to be used during the pandemic:

“... Some of the emergency drugs were not readily available at the emergency store. Especially there is a drug we called Suxamethorium Chloriede resenius 100mg/2ml. we use it a lot at the resuscitation unit but we were not having it.” (NRS-8)

“It got to a point, where instead of discarding PPEs after use, at the emergency department. There was a time you had to repeat wearing the PPEs like the gown that we wear, you can't dispose it off.” (NRS-7)

“The challenges we were having were shortages of sanitizers and co.” (PMC-1)

“We were also coming into contact with COVID patients. Those at the COVID Centre know the patient is infected. And the PPEs they were using, though we had our PPEs, the ones they were using were more complex than our PPEs.” (NRS-1)

Quality of care was affected also because as some of the healthcare workers were infected with the virus, per the COVID-19 protocol they had to stay off work or be home-quarantined until their test proved negative to COVID-19. This made the facility to recruit internally some staff from other departments who were available provide routine care services. Some interviewees noted that as a result of relocating unqualified staff for duties that they weren't trained for, routine health care was negatively affected.

“The quality of care, it dwindled a bit because we brought unspecialized nurses to cover for the period when it hit us most.” (MD-3)

There was the challenge of under staffing. The reduced number of staff available during COVID-19 to help with the stress the pandemic posed was noted by most of the interviewees as a challenge. Some of the staff contracted the virus and it therefore reduced few available staff and making others double up with other responsibilities outside their routine health services:

“...a lot in our hands and the nurses are few and most of them are getting the infection. So, workload was becoming hectic for the little that were healthy to work with. Staff strength was a challenge because of the rate of infection.” (NRS-8)

“The challenge was, I had to double up with what I do. I had to do my usual work here and I had to go back to the preparation room to prepare sanitizers.” (PMC-1)

“The staff strength wasn't too good, there was pressure on the staff here because we were caring for both suspected cases and other cases, and with the suspected cases.” (NRS-5)

“Staffing was an issue. There was so much pressure. Let's say a work that two people are supposed to do; one person would do. Staff issue was a challenge.” (LBTR-2)

4.3 HEALTHCARE WORKERS' PERCEPTION OF THE INFLUENCE OF PROCESS FACTORS ON THE QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

This section focused on the healthcare workers' perception of the influence of process factors on the quality of routine care delivered during COVID-19.

There were changes made to the procedures in delivering routine services. Changes in procedures aside the reduced face-to-face attendance to patients was the strict use or adherence to PPE use. All interviewees admitted that though they were healthcare workers and as expected of them to usually make use of PPEs to protect themselves from spillages and droplets from patients or any unwanted stain, they were loose on the use of the PPEs and the regular washing of hands. The change in procedure was therefore that, PPEs had become more or less part of them and that even if patients needed attention, in the absence of PPEs such patients were not attended to. Frequent replacement of gloves, nose masks,

surgical nets and the maintenance of at least a meter distance between patients and healthcare workers were very much adhered to.

Interviewees were further asked how they went about their procedures in delivering the routine services during the pandemic;

“...during COVID, how routine services are delivered are the addition of the masks, I cover my hair with hair net and gown I put on during COVID before engaging or interacting with my patients.” (NRS-6)

“...now whether a patient is classified as COVID patient or not the face mask must be on. So, now there's a change. Any patient you see you do put on face mask.” (NRS-3)

At the OPD and emergency departments, the change in procedure was sorting out patients into groups. Patients who showed signs of COVID-19 were sorted out from the rest of the patients to reduce the spread of the virus. Such patients were screened and detail history taking followed if signs were COVID-19 related. This was not the usual way of delivering routine services but had to be taken into consideration to help prevent person-to-person transmission of the coronavirus.

Other respondents also shared the experiences on the procedure change as patients had to be sorted out to make sure they were not COVID-19 patients before treatments were given and phone consultation was intensified;

“...the procedures changed because... one, the parent of the child will talk to you on phone and you will not physically see the patient... the procedure changed. It was just parents coming and then of course the time patients spent in the consulting room was also reduced.” (MD-1)

“...not being able to practice the way that you normally would. So that was the challenge.” (MD-2)

“Formerly, when they come, we attend to them at a go but now we have to do the sorting out and make sure we screen those who are COVID patients, we pick them out per the vitals that we get and we do detail history taking. This wasn't the usual.” (NRS-8).

On perception, interviewees had varied perceptions of the quality of care. Some interviewees perceived the quality of care to be positive while others perceived the quality of care as negative. The perception of care was viewed from the time spent with patients; Some respondents perceived the quality of care as negative;

“Well I think it wasn't so good. Because looking back, at that time we didn't know what was all about, so it was quite frightening, so I don't think we were able to provide the type of care we were supposed to have provided.” (MD-1)

“I will say it reduced a bit. In terms of I mean spending ample time with the patient. You even want the patient to leave and go.” (NRS-9)

“...the COVID test at that time could take forever to come so even if you request a test the procedure was so cumbersome. So, we couldn't then see a patient if we don't know what the patient is having.” (MD-1)

“...the quality reduced a bit just because when you are practicing medicine you touch, and already you have social distancing and unless you have proper PPE to get closer to your patient to do examination like you would want to.” (MD-2)

Other respondents also perceived a positive quality of care, the quality of services were the same as before COVID-19 and even shot up as a result of the strict adherence to the COVID-19 protocols;

“It did not affect the quality of services...our work here is such that there is continuity. So, a particular shift, whatever you are able to handle it up to, just hand it over to the next shift to continue.” (LBTR-1).

“It was okay and didn't reduce because the management helped us. They provided us with all that we needed to work with so you don't have any excuse...” (NRS-6)

“I think it even shot up... everybody is much more careful, proper use of antiseptic trying to prevent microbial infections, contaminations, from themselves to patients and from patients to them, it should have even increased.” (PMC-1)

“It's still quality. COVID hasn't changed anything when it comes to our service or work. Every patient that comes here with respiratory condition is classified or can be a potential COVID case.” (NRS-3)

For motivation, all interviewees in the various departments except those from the emergency who were made to double up with COVID-19 services (and therefore received some motivation like the healthcare workers' who were attending to COVID-19 patients) made it clear that they were not given incentives as all were directed to the COVID-19 team;

“We didn't receive anything.” (MD-3)

“...they were sharing money for those who were doing COVID...They shared all the money at another place. I never even heard about it... So of course we got a lot of challenges.” (MD-1)

“...you heard some nurses were going on demonstration, some of them were not paid or something. It was improper, because those of us delivering routine service, we are the

people who receive the COVID cases before we take them to the COVID center...”

(PMC-1)

4.4 HEALTHCARE WORKERS’ PERCEPTION OF CHALLENGES TO QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

This is a major section that focuses on the challenges that healthcare workers faced in delivering routine healthcare services to clients during COVID-19. The main interest was to explore challenges that healthcare workers faced during the pandemic. Noted among the challenges that healthcare workers encountered in the delivery of routine care services were closure of units to psychological challenges. The other element of interest in this section was to ascertain the attention that was given to routine care services.

Interviewees were asked about how they perceived the attention given to routine health services. Majority of respondents made it known that there was attention shift to COVID-19 thus, giving less attention to the staff who were attending to routine services in terms of motivation to the staff and logistics distribution for the delivery of routine health services. Interviewees shared their experience on how priority was given to other healthcare workers who were in the COVID-19 team when it came to the request for logistics;

“It’s the process for getting PPEs and they want it for the COVID center because it was not enough, and meanwhile we are keeping COVID patients here and we are not known as a COVID team.” (MD-1)

“...attention was shifted. In the distribution of the PPEs.” (NRS-6).

“Gloves, gowns, even food but they took it to the nurses and doctors at the COVID Centre and the patients. But not we those here ...” (NRS-6)

Psychologically or emotionally, the pandemic caused a lot of fear, panic, stress and anxiety among healthcare workers. Staff were scared to have interactions with patients, and they were scared of contaminating their families. There was the fear of contracting the virus which even heightened as each department recorded numbers of infected healthcare workers and interviewees faced some stigmatization.

“People are scared to come close to you because you have been with people with COVID.” (LBTR-1)

“It was global; it wasn’t just local. So, it’s like psychological sort of distress. It was global.” (MD-2)

“You have kids and family back at home. The moment you get home; they are also scared whether you’ve been infected or not. So psychologically that was a challenge that we were facing. But yet still we come to work and we deliver services.” (NRS-1)

“You are somehow afraid of every patient that comes. So, to see patients, you get afraid whether to see them or not.” (NRS-3)

Other challenges that respondents faced that affected the delivery of routine healthcare services were closure of units and delay in getting COVID-19 tests’ results that made them unwilling to attend to patients;

“And then the COVID test at that time could take forever to come so even if you request a test the procedure was so cumbersome. So we couldn’t then see a patient if we don’t know what the patient is having.” (MD-1)

“...just imagine OPD on hold because a lot of COVID cases have flooded the emergency. So it was like attention was actually on COVID cases...” (NRS-9)

4.5 HEALTHCARE WORKERS' PERCEPTION OF COPING STRATEGIES TO CHALLENGES TO QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

During COVID-19, healthcare workers especially those who deliver routine care services were faced with challenges. Nonetheless, it was expected of them to still continue attending to their responsibilities despite the storms or waves of the pandemic. This coerced them into adopting mechanisms, strategies, measures to help them to deliver their services to patients who were still coming in with cases and those who were being managed. Additionally, they obtained experiences in using adopted measures in making delivery very efficient and convenient.

There were some new experiences that the healthcare workers acquired owing to the fact that they had to strategize and use mechanisms that were not in use or they were subtle. While some learnt how to make large quantities of sanitizer, others gained new knowledge of some drugs and others also got the opportunity to familiarize themselves with telenursing:

“Well I learnt that for instance review for patients sometimes I think we can reduce the review appointment. We can make some on phone, we can make the child go to school and the mother alone will come.” (MD-1)

“What’s good was that, now there is tele-consultation. Seeing a patient by zoom, by WhatsApp. So that was good. So really if you reach people far away, because that service was available. And that you had the chance to do that.” (MD-2)

“A lot... because we were doing telenursing, something we didn’t use to do...” (MD-3)

“...those who come who are not even COVID positive, who will be coughing and those things, some of the drugs like Azidomizine that we are using for the COVID patients, sometimes when you use it for them it also helps.” (NRS-2)

The above experiences acquired by the healthcare professionals were informed by the coping strategies they adopted in delivering routine services during COVID-19. Some of the strategies were Telemedicine, NHIS adjustments, rotations, division of labour, extension of review time, and reduced time with patients, online meetings and prayers:

“One of the strategies we used was division of labour... we had to define roles to ensure that the work was very efficient. We couldn't have allowed a full house coming in to work in the peak of COVID-19.” (PMC-2)

“When I say we changed our strategy that is, being mindful of COVID protocols and all that, we put in some systems in place such as restricting the number of people that we allow into the lab at a time.” (LBTR-1)

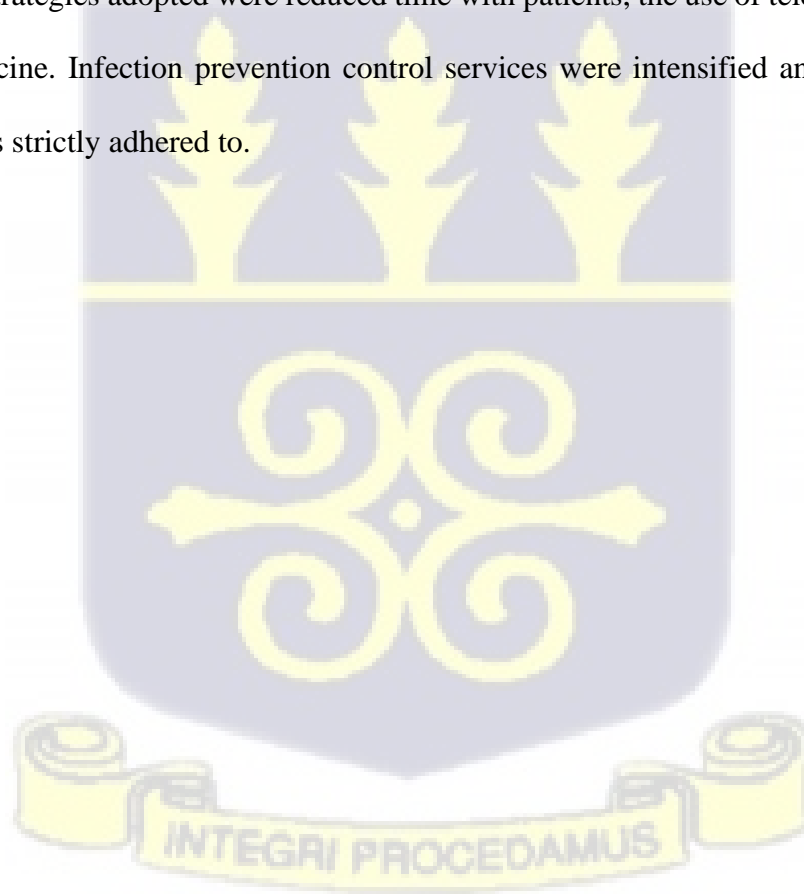
“...the strategy the hospital adopted was telemedicine. We give prescription and then forward it to you to buy. It saved the lives of our patients who are not COVID patients but comes to mingle with COVID patients at the hospital.” (NRS-8)

“...we realized that those who were diabetic were susceptible to the COVID. So, there was a change of management of hypertensive especially. We had a workshop and that has broadened our knowledge a lot of management of hypertensives; replacing labetalol with oral plain efondipine.” (NRS-8)

4.6 Summary of Chapter

The occurrence of the public emergency COVID-19 caused a disturbance in the healthcare system which influenced healthcare workers' perception of the quality of care and affected

some structural and process indicators of the health system. With the rate at which the coronavirus was spreading, there was a modification in the policy of quality of care as hands-on examination of patients were withdrawn or reduced to minimal. Healthcare workers who did not have the expertise for some particular healthcare services were brought on board since some healthcare workers got infected with the virus, and they had to stay-off work for those available to be dispatched to their departments to deliver routine healthcare. There was inadequate supply of some drugs at the emergency department. Routine healthcare workers also noted that there was sharp attention shift from them to healthcare workers who were directly delivering COVID-19 services to patients and by this, they received low or no motivation as indicated and had to struggle for PPEs. Some coping strategies adopted were reduced time with patients, the use of teleconsultation and telemedicine. Infection prevention control services were intensified and all COVID-19 protocols strictly adhered to.



CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 INTRODUCTION.

The chapter discusses the findings of this study which explored healthcare workers' perception of quality of routine healthcare delivery during COVID-19 at the Greater Accra Regional Hospital. The study objectives were discussed in relation to existing literature and in context with the theoretical framework.

5.1 HEALTHCARE WORKERS' PERCEPTION OF THE INFLUENCE OF STRUCTURAL FACTORS ON THE QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

The findings indicated that emergency cases such as surgical cases, road traffic accidents, and also, diabetes, and hypertension among other non-communicable disease management were among the routine health services delivered by healthcare workers during COVID-19 at the GARH. Chudasama et al., (2020), Fung et al., (2020) and Kendzerska et al., (2021) in their studies showed that some routine care delivered during COVID-19 were management of chronic diseases such as diabetes, chronic obstructive pulmonary diseases, hypertension, asthma, cancer, heart diseases and mental health which worsened as a result of COVID-19. The kind of routine services delivered were consistent to the results with this study. These routine services delivered during the COVID-19 period were not in any way different from those delivered before COVID-19.

The findings from this study showed that there was a problem with supply of personal protective equipment which influenced the delivery of routine health care. There was inadequate supply at a point which made healthcare workers re-use the few available PPEs

in other to continue the delivery of routine services. According to the study results, some of the structural factors that influenced the quality of care that the healthcare workers in delivering routine healthcare during COVID-19 at GARH included inadequate logistics especially PPEs. These results are consistent with a similar study which examined the experiences of frontline healthcare workers during the COVID-19 pandemic in Nigeria (Okediran et al., 2020). The respondents indicated that they experienced challenges working in the COVID-19 environment and working with limited personal protective equipment.

Again, this was in consonance with studies to explore the perceptions and experiences of healthcare and frontline workers respectively, results showed that healthcare workers and frontline workers faced the challenge of lack of PPEs. Healthcare workers were also challenged with high workloads, long shifts, anxiety, inconsistent flow of information on COVID-19 and lack of routine COVID-19 testing that increased fear in them (Vindrola-Padros et al., 2020; Billings et al., 2021). These findings can be attributed to health system challenges already prevailing in this part of the world. Understanding routine healthcare workers' perception during COVID-19 is important in sustaining and improving on the quality of care of the health system.

5.2 HEALTHCARE WORKERS' PERCEPTION OF THE INFLUENCE OF PROCESS FACTORS ON THE QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

Healthcare workers' perception of quality of care of routine services delivered during COVID-19 was identified to vary among healthcare workers. Whereas some reported that it was satisfactory others believed that the prevailing condition caused a decline in quality of care. Similar to what has been documented earlier, they explained that the inability to

devote much time to a patient, no or very reduced hands-on examination of cases reported and the reduction in the number of personnel for routine care affected the quality of care. Results from this study where healthcare workers spent less time with patients and reduced patients' visits to the health facility in the quest to reduce patients' exposure to the coronavirus. This relegated consistent examination or check-ups that should be meted out to the patients. This is in consonance with the following studies; Javaid et al., (2021) explored the perception of women of prenatal care during COVID-19 and the effect of the changes on pregnant women in the United States. Results showed that there was reduced number of prenatal visits, adhering to COVID-19 protocols and changes in the provision of care also impacted the perception of care given to the women as in-person visits were canceled or postponed (Javaid et al., 2021). Consistent with the above findings is a study which noted that where restrictions on routine immunization led to a negative perception of the quality of care as routine immunization dropped drastically as a result of the COVID-19 (Chandir et al., 2020).

Additionally, results from this study showed that while some of the healthcare workers were unwilling to go to work and attend to patients, they were scared to contract the coronavirus and therefore were unwilling to be at post were eager to ask to be permitted from work if they happened to have any sign of ailment. However, others felt they owed their patients a duty of care and therefore had to be available to work in the face of COVID-19. This was consistent with other studies (Kim, 2018; Lee et al., 2018; Billings et al., 2021). Even as a lot of healthcare workers were infected, the few available had to double-up with other duties for the efficient functioning of the regional hospital.

5.3 HEALTHCARE WORKERS' PERCEPTION OF CHALLENGES TO QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

Results from this study also showed that especially healthcare workers delivering routine service faced challenges with the acquisition of PPEs as attention was shifted to frontline healthcare workers attending to COVID-19 patients. Interviewees described how they had to struggle in order to get enough PPEs for their routine service delivery. To address this challenge of limited PPEs, the GARH locally manufactured nose masks and sanitizers to cushion its healthcare workers and others had to double-up their normal duties in taking care of other wards and production of PPEs.

There was also closure of units of the Greater Accra Region for instance the Out-Patient Department. This was a measure taken by the facility as the country also placed restrictions on the movement of people as a means of reducing the spread of the coronavirus.

Due to the urgency of the pandemic and the fact that most had little experience working amidst pandemics, strong pressure mounted on them. There was stigmatization from colleagues from other departments and other individuals who were aware of their duties. Families of these nurses also faced discrimination. Findings from this study also shows that healthcare workers who had children had the fear of even getting closer to their children. Lee et al., (2018) reported a study that healthcare workers faced post-traumatic disorder symptoms as a result of the pandemic and that made them to stay off duty for some period of time. Also, Javaid et al., (2021) found in a study that emotional challenges, structural changes to the health system, and behavioral changes had an impact on the perceived quality of care during COVID-19. Women showed anxiety and fear in accessing prenatal care as a result of the impact of COVID-19 on prenatal and delivery care.

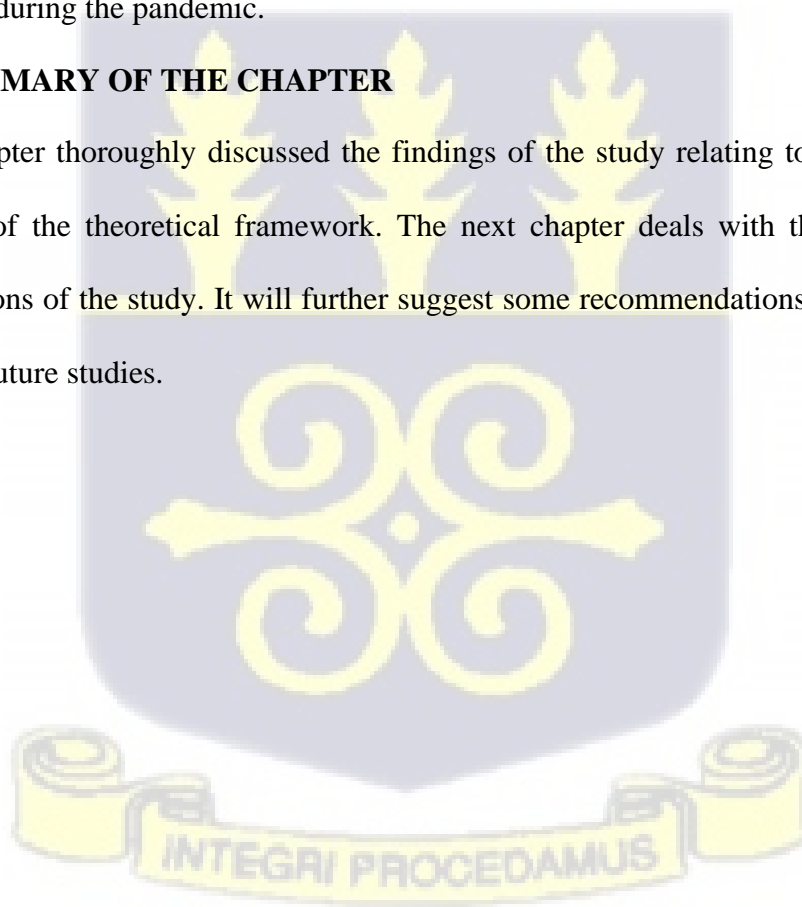
5.4 HEALTHCARE WORKERS' PERCEPTION OF COPING STRATEGIES TO CHALLENGES TO QUALITY OF ROUTINE HEALTHCARE DURING COVID-19 PANDEMIC

The challenges experienced by healthcare workers at the Greater Accra Regional Hospital necessitated some coping strategies. According to the results from this study, some of the coping strategies used by healthcare workers in delivering routine healthcare during COVID-19 were telemedicine, phone consultation and provision of a psychological team. Telemedicine became the new norm where healthcare workers attended to patients virtually except in emergency conditions that patients visited the facility or for refills. As some of the healthcare workers became infected with the virus and recovered, the GARH found it very important to provide psychological assistants for staff as a psychological team was created. And even the few available healthcare workers who were not infected but were psychologically stressed also accessed the psychological services put in place. In a similar study which assessed the impact of COVID-19 on routine care for chronic diseases from the healthcare workers' perspectives, results showed that a majority (80%) of healthcare workers were using either telephone or zoom for consultations and telemedicine and had adapted to the way of service delivery which was consistent with this study. In consonance with the above study, Fung et al., (2020) evaluated pediatric type 1 diabetes telehealth visits during the COVID-19 pandemic and explored patients' perspectives of the usage of the visits. Majority of the respondents showed high preference for the continuous use of telemedicine even after COVID-19. Results showed that telephone and virtual visits were highly usable during the COVID-19 period. Again, a study examined the effects of the health system's response to the COVID-19 on chronic disease management and results showed that, as a result of governmental restrictions on healthcare visits, the face-to-face

care for people with chronic diseases decreased while telemedicine was elevated or highly utilized during the COVID-19 period due to the fear of getting exposed to the virus (Kendzerska et al., 2021). Cancellation of face-to-face visit to telephone visits, telephone consultation, discussion of scan results on phone, telemedicine to reduce contacts and spread of the coronavirus were also reported in earlier studies (Zhao et al., 2020; Kamposioras et al., 2020) which was also consistent with this study. These coping strategies were adapted in order to reduce exposure to the coronavirus both on the part of the healthcare workers and the patients. Scheduled appointments on phones were used for consultation as healthcare workers provided healthcare services virtually. Telemedicine or teleconsultation was elevated during COVID-19 to help patients still receive healthcare services during the pandemic.

5.5 SUMMARY OF THE CHAPTER

This chapter thoroughly discussed the findings of the study relating to literature in the context of the theoretical framework. The next chapter deals with the summary and conclusions of the study. It will further suggest some recommendations to policymakers and for future studies.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 INTRODUCTION

This chapter summarizes the entire study conducted with conclusions on the findings of the study as well as contribution to knowledge, recommendations, limitations to the study with directions for future studies.

6.1 SUMMARY OF THE STUDY

The disturbance in the health systems of countries as a result of COVID-19 pandemic cannot be taken lightly. The greater Accra Regional Hospital which happens to double up as one of the COVID-19 Centres in Ghana still continued to deliver routine care to patients despite the emergence of the COVID-19 pandemic.

The study explored healthcare workers' perception of quality of routine care delivery during COVID-19 pandemic at the Greater Accra Regional Hospital. Specifically, the study explored the perception of structural factors to quality of care, perception of process factors to quality of care, the challenges faced by healthcare workers' during COVID-19 and finally the coping strategies to mitigate or counter the challenges faced in delivering routine healthcare during COVID-19.

This study therefore adopted the qualitative data collection approach where semi-structured interviews were conducted among 16 healthcare workers at the Greater Accra Regional Hospital who were purposefully selected. After interviews were transcribed, they were thematically analyzed to obtain themes that were in context with the theoretical framework for the study and results reported.

Key among the findings include the fact that, some of the healthcare workers who delivered routine care to patients during COVID-19 got infected with the coronavirus, and therefore had to stay-off work. This caused a reduction in the number of available workers for effective and efficient running of the health facility. The reduced number of staff number allowed for others who did not have requisite expertise for some particular health care services to be brought on board to manage cases. This as noted by interviewees reduced the quality of care delivered to patients.

The study also discovered that there was a national shift in attention from routine services to COVID-19. Apart from those categorized as frontline staff by the Ghana Health Service, all other healthcare workers delivering routine services were excluded from some benefits like increment in salary as financial motivation that was given to the frontline workers. Other Departments of the hospitals had to struggle for logistics; teams working on COVID-19 cases were given top-most priority

Again, healthcare workers faced some psychological stress as a result of the pandemic as COVID-19 was a public emergency and they had little knowledge about it. there was fear, anxiety and pressure which mounted on the healthcare workers. Stigmatization also heightened as society, friends and even family distant themselves from them for the fear of getting infected.

Healthcare workers also devised strategies such as the use of telemedicine, phone consultation, and NHIS adjustments among others as coping mechanisms in the period of COVID-19.

6.2 CONCLUSION OF THE STUDY

This section presents conclusions of the study based on the specific objectives as stated in the chapter one as below.

6.2.1 Healthcare workers' perception of the influence of structural factors on the quality of routine healthcare during Covid-19 pandemic at the Greater Accra Regional Hospital

In conclusion, the study reported that healthcare workers were understaffed as a result of some of them getting infected with the virus and thus had to stay off work. Inadequate PPEs was one major issue that healthcare workers encountered. Some drugs that were needed for routine care run-out during the lockdown which affected routine service delivery. Healthcare workers provided same kind of routine care services to patients that used the GARH facility during COVID-19. Also, respondents still delivered routine services to patients during COVID-19 as routine services were not halted despite the number of cases that GARH was recording. Some of the routine services delivered were checking vitals of patients coming in with surgical and medical cases at the OPD, dispensing drugs to patients with emergency and referral cases at the Pharmacy department, surgical and emergency cases at the Emergency department, giving specialist and ward services at the Pediatric department, blood investigation at the Laboratory department and attending to patients coming in for reviews, acute and emergency cases at the Family medicine department.

6.2.2 Healthcare workers' perception of the influence of process factors On the quality of routine healthcare during Covid-19 pandemic at the Greater Accra Regional Hospital

The negative perception of the quality of care was as a result of reduced “hands-on-patients” care that was delivered to patients. It was also reported to be as a result of less time spent with patients as it became needful to reduce provider-patient time spent together. On the other hand, other healthcare workers saw a very positive quality of care given to patients from the perspective of the heightened adherence to infection prevention control measures. Healthcare workers noted that there was no or little motivation given to routine healthcare workers.

6.2.3 Healthcare workers’ perception of challenges to quality of routine healthcare during Covid-19 pandemic at the Greater Accra Regional Hospital

Challenges that healthcare workers delivering routine care services encountered were varied. The availability of few staff placed a lot of pressure on the available staff. There was psychological stress, anxiety and fear of getting infected with the virus and the stigmatization of infecting others with the virus because they work in a health facility. There were other challenges of closure of the OPD and emergency department and flow response to patients as a result of delay of COVID-19 test results. And generally, attention was focused more on healthcare workers attending to COVID-19 patients than those delivering routine health care.

6.2.4 Healthcare Workers’ perception of coping strategies to challenges to quality of routine healthcare during Covid-19 pandemic at the Greater Accra Regional Hospital

There were several coping strategies that the healthcare workers used to cushion themselves during the pandemic in order to enable them still perform their responsibilities. Telemedicine and teleconsultation was a major strategy the facility used where patients

called on phone for consultation or communicated with their healthcare providers via WhatsApp. There was the extension of review times in order to reduce patient's exposure. Appointment-based attendance to patients, rotation and online meetings for healthcare workers, adjustment in NHIS and prayer.

It is therefore expedient to understand healthcare workers in order to cushion the healthcare system to efficiently and effectively be up to task during public emergencies.

6.3 CONTRIBUTION TO KNOWLEDGE

This section presents the contribution of this study to knowledge in the areas of policy and practice, theory and methodology as presented below.

6.3.1 Contribution to policy and practice

This study adds to literature by providing critical perception of the quality of care from the perspective of healthcare workers during COVID-19. Most studies may focus on the general perception of quality of care but this study particular delves into how COVID-19 affected the quality of routine care. This will go a long way to inform all stakeholders on the need adequately safeguard the healthcare system even in the face of pandemics to prioritize routine healthcare and also healthcare workers who deliver such care. And to also sustain the effective adherence to infection prevention control measures.

3.3.2 Contribution to methodology

A qualitative method or quantitative method, or both methods could have been applied and have been applied in similar studies. This was one of the few studies that might have applied only qualitative methods to collect data for analysis on the topic at the Greater Accra Regional Hospital.

Since the study sought to delve deep into the perception, lived experience of healthcare workers and not on measurements or numerical factors, the qualitative method was the best to help obtain the data from the healthcare workers as the researcher did not know the set of answers that the interviewees were going to provide. However, quantitative method could not have provided same results as it employs numbers and accuracy (Rutberg & Bouikidis, 2018; Cleland, 2015).

6.3.3 Contribution to theory

The theory might have been applied in studies elsewhere, but this may be one of the few studies that seem(s) to have been applied in a study to explore healthcare workers' perception of quality of care at the Greater Accra Regional Hospital in the Greater Accra Region. It helps to explain the structure effect on process and finally the outcome of health status from the perspective of healthcare workers at the Greater Accra Regional Hospital.

6.4 RECOMMENDATIONS

Based on the findings identified from this study some gaps have also been identified for the attention of health practitioners, management and policymakers. Therefore, flowing from these conclusions, the study recommends the following:

6.4.1 Ministry of Health/ Ghana Health Service

1. Deliberate measures should be put in place to train healthcare workers particularly as infectious disease specialists. The ad-hoc nature of dealing with challenges in the health sector does not seem to cushion the health system from future happenings. Forming emergency teams only during emergencies and dissolving them afterwards is a temporal solution that can still stress routine care in the face of pandemics.

2. The Ministry of Health should regularly provide financial clearance for the recruitment of new staff to increase staff strength of the various facilities to deal with the growing demand for healthcare workers, which is often worsened by pandemics.
3. Government, through the Ministry of Health should consider having Regional Infectious Disease Centres that will be purposely set aside for infectious diseases in all Regions and not limited to only the populous Regions as it is in the present case.
4. Ghana Health Service and Facility managers should sponsor and train specialists who upon completion will be in-charge of infectious diseases Centres. This will help reduce the pressure that pandemics mount on healthcare workers delivering routine care.
5. The Ghana Health Service should intensify and familiarize its staff with psychological teams in various health facilities to deal with anxieties and uncertainties associated with pandemics.

6.4.2 Management of Greater Accra Regional Hospital

1. Facility managers and the Ghana Health Service should ensure equal support to all healthcare workers during pandemics since all are exposed to such occurrences. Equal attention to all exposed healthcare workers will create a coherent health system as all will be protected and encouraged to respond efficiently to their responsibilities during the fear and anxiety that pandemics pose.

6.4.3 Healthcare providers of the Greater Accra Regional Hospital

1. Infection preventive control measures should be heightened among healthcare workers in their daily healthcare service provision to patients and not only intensified during public health emergencies like COVID-19.

6.5 LIMITATIONS TO THE STUDY

1. This study employed the qualitative research method, which may introduce subjective analysis and conclusions. To minimize this, data was verified with more data source, the data and findings were reviewed by some peers.
2. Using the qualitative research methods, the conclusions made from the findings may not be applicable to other health institutions which delivered routine healthcare services during the pandemic. As qualitative study deals with lived experiences of interviewees which cannot be generalized to other population. However, quantitative study with large sample size would have allowed for some generalization (Palinkas et al., 2015).
3. Recall Bias may have also influenced the responses from healthcare workers. Owing to the fact that, data collections was made during the latter part of 2021 which might have allowed some time from 2020 and resulted in recall bias. So, some respondents had to make reference or recall some instances to be able to share their experiences. However, the internal and external validity was not adversely affected in this study.
4. Saturation was reached by the 16th interviewee which became the study sample for the research thus the small sample size. The study did not also include patients because the study specifically sought to understand the perception of the quality of care from the healthcare workers' perspective.

6.6 DIRECTIONS FOR FUTURE RESEARCH

Future researchers should endeavor to address the following;

Healthcare workers delivering routine care in other facilities that equally received or attended to COVID-19 cases in future studies to know their experiences with delivering routine care vis a vis COVID-19. The study provides a good foundation to explore how

the quality of healthcare delivery is compromised during pandemics that has a toll on healthcare systems.

And there is the need to replicate this study in other facilities and regions in the country for comparative purposes.

Also, a bigger sample size with a quantitative research design (specifically survey) is suggested for future studies to increase the chances of generalization and to give a better picture for analysis (Schreier, 2018).



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APPENDICES

APPENDIX A: PARTICIPANT INFORMATION SHEET

TITLE: HEALTHCARE WORKERS' PERCEPTION OF QUALITY OF ROUTINE CARE DELIVERY DURING COVID-19 PANDEMIC IN GREATER ACCRA REGIONAL HOSPITAL.

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General Information

The corona virus disease (COVID-19) is fast spreading in the world, Ghana inclusive, causing many deaths. The urgency to which affected countries have given to combat the spread and to reduce deaths has shifted attention and reallocation of resources to the pandemic. Routine care services during the period of the pandemic has been minimal due to restrictions and fear of getting exposed and infected with the virus. It is therefore important

to explore the perception of quality of healthcare workers to know how non-COVID-19 patients or cases fared over the period. The information gathered will help to have a balance in service delivery even as COVID'19 persist for all to access. This research is in partial fulfillment of a Masters Degree in Public Health from the University of Ghana.

Nature of the Research

To do this research, a total sample of about 16 healthcare workers will be selected in the **Greater Accra Region specifically the Greater Accra Regional Hospital**. You are one of the selected healthcare workers. If you agree to be part of this research, you will be asked few questions about your perception of quality in delivering routine care during COVID-19 pandemic.

Participant Involvement

Duration of the Study:

The research will last for three months in all however the in-depth interview will take about two weeks with each interview taking about 30-45 minutes of your time. No participant will be interviewed twice.

Potential Risks:

You will not be exposed to any risk as far as this study is concerned. All COVID-19 protocols (eg. Use of sanitizers, face masks, physical distancing, etc.) would be adhered to ensure participants safety and welfare.

Possible Benefits:



If you agree to participate in this research, you will not be given any material compensation, however, your involvement will be recognized and appreciated. You will also be helping researchers in Ghana understand the influence of COVID-19 on routine care delivery. The information will also help policymakers to make provisions for infectious outbreaks that may emerge in future.

Cost:

You will not incur any cost directly or indirectly if you agree to participate in this research.

Compensation:

There would be no payment whether physical or in kind to respondents. However, their involvement in the study (time and information given) would be highly recognized and appreciated.

Confidentiality:

To the best of the researcher's knowledge, information provided will be protected and stored in a safe location. You will not be named in any reports and your name will not be given to any third party.

Voluntary Participation:

Participation in this research is voluntary and you may choose not to participate or withdraw your consent at any time without any penalty.

Outcome

This study needs to be done to provide baseline data on the experiences of healthcare workers (strategies adopted to continue providing routine services to patients) at the emergent occurrence of the COVID-19 which of a great public health concern.

Findings from the study will help the Government of Ghana and the Ministry of health specifically to strengthen the routine services delivery across all health facilities in the country thereby affording them the expertise and skills to contribute to a balanced health system in the presence of unforeseen occurrences like COVID-19

Funding Information:

The Principal Investigator is the sole funder for this project.

Sharing of Participants' Information:

The data obtained is only for the partial fulfilment of a second degree at the School of Public Health-University of Ghana. To the best knowledge of the researcher, the data will not be shared with any organization except for the purpose intended.

Provision of the information and consent for participants:

You will be given a copy of the information sheet and the consent after signing or thumb printing to keep.

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Your Right as a Participant

This research has been reviewed and approved by the Ethical Review Committee of the Ghana Health Service (GHS-ERC). If you have any questions about your rights as a research participant you can contact the ERC Office between the hours of 8am-5pm through Nana Abena Apatu,

Phone: 0503539896, email: ethics.research@ghsmail.org



APPENDIX B: CONSENT FORM

STUDY TITLE: Healthcare workers' perception of quality of routine care delivery during COVID-19 pandemic in Greater Accra Regional Hospital.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (Twi, Fante, English). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

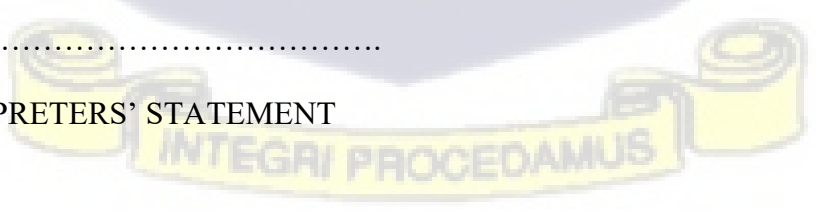
I voluntarily agree to be part of this research.

Name of Participant.....

Participants' SignatureOR Thumb Print.....

Date:.....

INTERPRETERS' STATEMENT



I interpreted the purpose and contents of the Participants' Information Sheet to the aforementioned participant to the best of my ability in the (Twi, Fante, English) language to his proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter.....

Signature of Interpreter..... OR Thumb Print

Date:.....

Contact Details.....

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (Twi, Fante, English).

I confirm that he/she was given the opportunity to ask questions and seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:.....

Signature..... OR Thumb Print

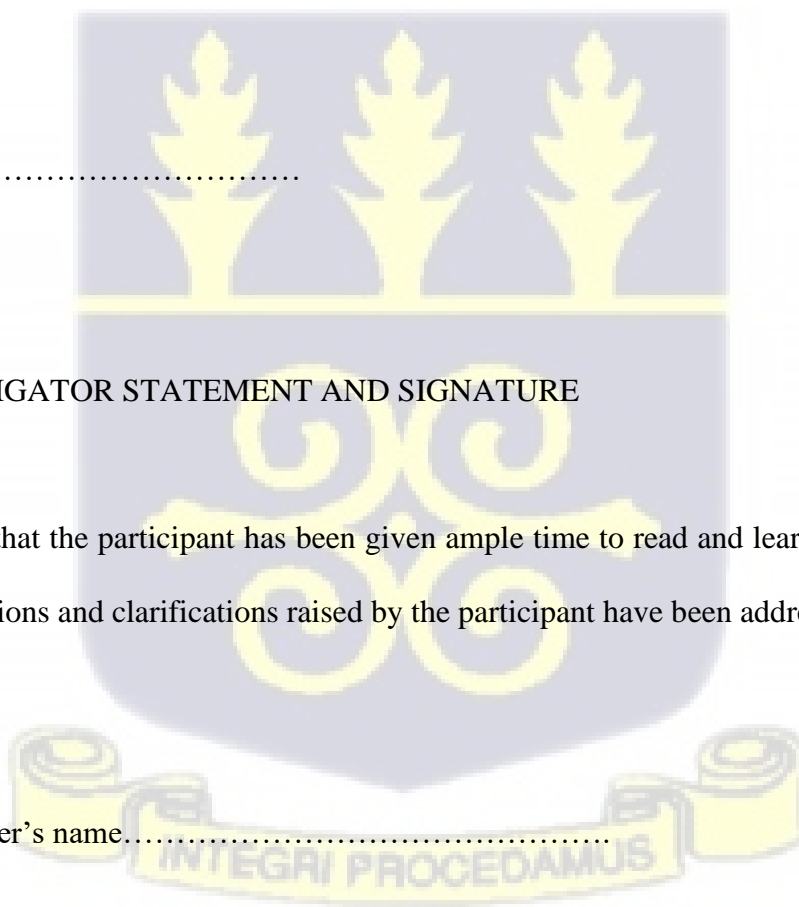
Date:.....

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study.

All questions and clarifications raised by the participant have been addressed.

Researcher's name.....



Signature

Date.....



APPENDIX C: INTERVIEW GUIDE ON HEALTHCARE WORKERS' PERCEPTIONS OF QUALITY OF ROUTINE HEALTHCARE SERVICES DURING COVID-19 PANDEMIC AT THE GREATER ACCRA REGIONAL HOSPITAL.

BACKGROUND CHARACTERISTICS

- Sex
- Age
- Marital Status
- Level of education
- Cadre or Position
- Years of working
- Department or Unit

QUESTIONS

1. PERCEPTION OF QUALITY OF CARE OR WORKING CONDITIONS

- During COVID-19, healthcare workers do still provide routine services to people, tell me about the routine services that you delivered during COVID-19?
- How do you deliver routine services in this facility or what processes do you go through in delivering services?
- How do you perceive the quality of care under COVID-19 as compared to before COVID-19 pandemic?

2. CHALLENGES POSED BY COVID-19

- How is the provision of healthcare service under COVID-19?

- As a health worker, how has COVID-19 altered the delivery of routine services to your patients during the COVID-19 pandemic?
- How different are the routine services delivered during COVID-19 from before COVID-19 in this facility?
- How different are the procedures or processes of delivering routine services before and during COVID-19 in this facility?
- What are some of the challenges you face when delivering services to patients during this pandemic?

3. COPING STRATEGIES

- What new on-the-job experience have you had regarding service delivery in this COVID-19 period, tell me more about the factors that have informed or influenced your experience?
- How have the experiences helped or affected the delivery of services in this facility?
- What are some of the strategies you adopted in delivering healthcare to patients? What measures did you put in place to enhance healthcare delivery during this pandemic?

4. SUPPORT

- Have you received any support (training or material) from any individual, group, organization or agency to aid routine care during the pandemic?
- Probe: What help have did you receive from the health system managers in your facility to aid service delivery during this pandemic? (probe)
- What are some of the measures they put in place to improve the delivery of routine care?

5. GENERAL THOUGHTS AND RECOMMENDATIONS

- In your opinion, how do you see the attention given to routine care during COVID-19?
- What additional measures will you suggest or can be put in place to improve routine healthcare delivery during this pandemic?
- What do you suggest to healthcare managers/MOH/GHS to do to improve routine care during public emergencies like COVID-19 recommendations and how should they be done?



APPENDIX D: ETHICAL CLEARANCE

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

*In case of reply the
number and date of this
Letter should be quoted.*



My Ref. GHS/RDD/ERC/Admin/App/21/443
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Fax + 233-302-685424
Email: ethics.research@ghsmail.org
15th October, 2021

Anita Esi Kittoe
University of Ghana
Noguchi Memorial Institute for Medical Research.
P. O. Box Lg 581
Legon-Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC 037/09/21
Study Title	Health care workers' experiences with routine health care delivery during COVID-19 in Greater Accra.
Approval Date	15 th October, 2021
Expiry Date	14 th October, 2022
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED... 
Dr. James Akazili
(Head, Ethics & Research Management Department)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra