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STRIDES OF MIDWIVES IN ZONGO CLINIC, BEREKUM FOR THE PROTECTION OF PREGNANT WOMEN IN A COVID-19 PANDEMIC

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DECLARATION

We hereby declare that this submission is our work towards the Diploma in Midwifery and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of the diploma of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

The aim of this study was to evaluate the safety practices of midwives at Zongo Clinic, Berekum that helped protect pregnant women from COVID-19. Convenience sampling technique was used to select participants for the study. A total of 50 participants were selected for the study. Questionnaire was the instrument used for the collection of data. Data analysis was done with the aid of Microsoft excel. The study found that % of the respondents endorsed that WHO has recommended wearing of nose mask in areas where physical distancing cannot be achieved. This indicates a very good understanding COVID-19 Safety Protocols. The vast majority (86%) of the respondents agreed that hand hygiene becomes compulsory whenever an individual touches the nose mask. A significant majority (72 %) of the respondents agreed that surgical nose mask can protect individuals from COVID-19. A whooping (94%) of the respondents agreed that incorrect usage of nose mask poses a health risk. The study recommended that midwives need to be made aware of the importance of hand hygiene and the negative effects that will be caused when it is not followed. All people who hold administrative positions in hospitals or schools should take the necessary measures to properly observe and implement the guidelines for hand hygiene. The study concluded that respondents had very good knowledge on COVID-19 safety protocols. The leading impact of COVID-19 were effects on public health systems, anxiety and public restrictions. The most important strategies highlighted by respondents were screening of pregnant and hand hygiene.

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ABBREVIATION

ANC	Antenatal Care
PNC	Postnatal Care
HCWs’	Healthcare Workers’
SARS	Severe Acute Respiratory Syndrome
UNICEF	United Nation’s International Childrens’ Emergency Fund
WHO	World Health Organisation

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CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Epidemics and pandemics are often unpredictable by nature. Thus, along with mitigation and suppression strategies, health systems, and in particular, HCWs' preparedness to respond to pandemics are critical to containing disease spread (Dunlop, Howe, Li, & Allen, 2020). Previous studies on epidemics, such as with other Severe Acute Respiratory Syndrome (SARS) and Ebola, have found that preparedness of HCWs are not only essential to effectively containing epidemics, but also in ensuring that they are not pulled from addressing other illnesses that may lead to preventable deaths (Corless, Nardi, & Milstead, 2018).

As professionals who look after women during childbirth, whether it be in their homes or in a hospital, midwives play an important role in monitoring and providing care during pregnancy, childbirth, and puerperium. Moreover, and as shown in the bibliography (Levine & Lowe, 2015), the professional competences of midwives, their knowledge, skills and attitude can improve the childbirth experience and they can also contribute to the autonomy and empowerment of women during this process, thereby improving results in breastfeeding, the mother–child bond and the women's mood and level of self-care (Sadeghzadeh, Amiri-Farahani, Haghani, & Hasanpoor-Azghady, 2019).

In the aftermath of the Ebola and Zika outbreaks, a 2020 World Bank study reported that countries across the world were inadequately prepared to respond to pandemics. Despite warnings and subsequent efforts to strengthen global pandemic preparedness, many countries

remain underprepared to respond to the novel Coronavirus Disease of 2019 (COVID-19) pandemic due to limited resources, underinvestment, and competing priorities.

At the end of 2019, the emergence of the coronavirus SARS-CoV2 led to profound changes in all aspects of healthcare, placing the planet in a state of alarm. On 31 December 2019, the Wuhan Municipal Health Commission in Wuhan City (province of Hubei, China) informed of 27 cases of pneumonia of unknown aetiology, with a common link to a wholesale seafood, fish and live-animal market in the city of Wuhan (World Bank, 2020).

On January 30th, 2020, the World Health Organisation declared the outbreak of COVID-19 to be a public health emergency of international concern, and subsequently the provision of healthcare services have been significantly disrupted globally. Systems and processes changed within maternity services in order to minimise the risk of COVID-19 transmission to women, their infants and healthcare staff (Onwuzurike, Meadows, & Nour, 2020).

Globally, as of 5:36pm CEST, 13 September 2021, there have been 224,511,226 confirmed cases of COVID-19, including 4,627,540 deaths, reported to WHO. As of 13 September 2021, a total of 5,534,977,637 vaccine doses have been administered. In Ghana, from 3 January 2020 to 5:36pm CEST, 13 September 2021, there have been 123,521 confirmed cases of COVID-19 with 1,096 deaths, reported to WHO. As of 23 August 2021, a total of 1,271,393 vaccine doses have been administered (WHO, 2021).

There is emerging evidence that the onset of the pandemic and pandemic-related restrictions including physical distancing requirements and lockdown requirements have resulted in increased prenatal maternal stress and reduced perceptions of support (Matvienko-Sikar, et al., 2020).

At the start of the pandemic, relatively little attention was paid to delivery rooms since the disease clinically affected the elderly, but it was soon discovered that pregnant women could also become infected, and this created concern about mothers and babies becoming infected by COVID during pregnancy. Currently available state data suggest that 80% of pregnant women experience the illness (Goberna-Tricas, Biurrun-Garrido, Perelló-Iñiguez, & Rodríguez-Garrido, 2021). On 4 May 2020, the International Confederation of Midwives published a document seeking to alert the world health authorities to the lack of attention to women's rights in matters relating to childbirth care that resulted from this health crisis, and to the neglect of midwives and other health professionals who attend to women at childbirth (International Confederation of Midwives, 2020).

In Australia, antenatal assessments have been moved to telehealth appointments using phone interviewing; with minimal contact appointments reserved for pregnancy care in later gestations, or for women who have complex health conditions (Queensland Clinical Guidelines, 2020). Face to face antenatal education programs across Australia have discontinued. The decision impacted access to information in a format that has traditionally included women and their birth support partners, preparing them for pregnancy, labour, birth, and early parenting (Pascuzzi, 2020). Limitations have been placed on the number of support people permitted to be present during labour and birth; in many settings, women have been required to nominate only one support person which has caused concern for women and their partners (Megalokonomous, 2020).

Evidence from similar health emergencies, most notably the Ebola outbreak in West Africa, has shown that such mitigating measures as well as the disease itself could have a detrimental

impact on women and girls. The Ebola outbreak led to a 75% increase in maternal mortality in West Africa. This evidence suggests that COVID-19 will have a similar effect on women and girls (Esegbona-Adeigbe, 2020).

In 2017, approximately 810 women around the world died every day from preventable causes related to pregnancy and childbirth. Maternal health services (MHS), which include antenatal, labor and delivery, and postnatal care, can play a crucial role in preventing and/or treating maternal health problems (Pant, Koirala, & Subedi, 2020). However, the "obstetric" population is vulnerable, as different stages of pregnancy involve multiple interactions with the healthcare system; therefore, assisting the childbearing population presents unique challenges during the coronavirus pandemic. Postpartum hemorrhage, maternal sepsis, preeclampsia, and premature rupture of the membranes are the most common COVID-19-induced adverse events reported among pregnant women (Chen, et al., 2020).

Telehealth and phone triage for antenatal clinics using the available resources have been elusive in rural areas. Women suffering from medical conditions or those with poor obstetric histories together with those in emergency situations are advised to come to hospital. Adverse infant outcomes (e.g., preterm birth) have been reported amongst some pregnant women who tested positive for COVID-19 (Chen, et al., 2020).

In Ghana, with less than one hospital bed and 0.2 physicians per 1,000 people (United Nations Economic Commission for Africa, 2020), the country’s constrained health system presents challenges to slowing the spread of the epidemic and in maintaining an overburdened healthcare infrastructure (Craig, Kalanxhi, & Hauck, 2020).

Evidence from four Low- and Middle- Income Countries with poor maternal and newborn child health indices suggests that current coronavirus pandemic focused approach could lead to more than 30% additional maternal and newborn deaths due to reduced access to relevant essential services such as family planning, antenatal care (ANC) and adequately supervised community and facility-based deliveries (Stein, Ward, & Cantelmo, 2020). Another study based on data from 118 Low- and Middle- Income Countries estimated that the disruption in utilisation of maternal and newborn child health services from the pandemic will increase under-5 mortality by 9·8-44·7% and maternal mortality by 8·3-38·6% per month, depending on the degree of disruption (Roberton, et al., 2020).

In 2017, maternal mortality ratio for Ghana was 308 deaths per 100,000 live births. Maternal mortality ratio of Ghana fell gradually from 398 deaths per 100,000 live births in 2003 to 308 deaths per 100,000 live births in 2017 (Ghana Health Service, 2021).

In Ghana, midwives are not just health workers, they are also mothers, sisters, neighbors, and trusted companions of women during pregnancy and childbirth (Attramah, 2021). Ghana has one of the highest numbers of COVID-19 cases and deaths in West Africa, and the pandemic continues to disrupt every facet of everyday life while also testing the resilience of the country's health system. Despite early and decisive measures to limit the spread of the virus, new and more contagious variants of the virus have plunged the country into a second wave, and health systems are now bracing for the third (Ghana Health Service, 2021).

A study in Ghana revealed over one third (62%) missed an antenatal clinic appointment; public transport was seriously restricted during lockdown and virtual appointments were not possible (Moyer, et al., 2021). As not all pregnant women with clinically confirmed COVID-

19 presented with fever or other clinical symptoms, it was essential to maintain a high degree of vigilance and follow strict hygiene, disinfection, and isolation protocols when caring for the women (Chen, et al., 2020). The provision of more handwashing and sanitization opportunities at the maternal health service provision centers and refresher training of staff on IPC practices is one positive impact likely to emanate from this pandemic (Abdul-Mumin, Agbozo, Abubakari, & Jahn, 2020).

The damaging effect of COVID-19 makes it critical for prying into the steps taken by midwives for the protection of pregnant women in a covid-19 pandemic.

1.1 Problem Statement

COVID-19 pandemic has led to compulsory lockdown, curfews and containment of activity of all people across the globe. This was done to promote physical distancing thereby preventing community spread of the virus and for preparedness of the healthcare facilities to deal with the pandemic. This resulted in limitation of utilisation of the healthcare facilities by one and all including pregnant women (Goyal, Singh, & Melana, 2020).

The majority of pregnant women and newborns represent a unique population and are mostly healthy, but few may experience life events that bring physical, emotional, functional and social challenges and needs, requiring safe and personalised care during the current COVID-19 pandemic (Zaigham & Andersson, 2020). There are palpable fears of COVID-19 effects on pregnancy, although not much information is available to support this (Lopes de Sousa, Carvalho, & Oliviera, 2020). Over this time, the priority in pregnant women's care has been to reduce the transmission of COVID-19 and provide safe care to those susceptible to COVID-19 (Ncube, 2021).

The general advice given to pregnant women is similar to that of the rest of the population. It includes social distancing, proper and frequent hand washing with soap and water, and use of sanitizers and continued attendance of antenatal care advised by their healthcare providers (Walker, Whittaker, & Watson, 2020).

1.2 General objective

To evaluate the safety practices of midwives at Zongo Clinic, Berekum that helped protect pregnant women from COVID-19.

1.3 Specific Objectives

1. To investigate the knowledge of midwives on COVID-19 safety protocols.
2. To find out the impact of COVID-19 on maternal health service provision.
3. To find out the strategies by midwives to safeguard pregnant women during COVID-19.

1.4 Operational Definition of Terms

Knowledge: defined as having adequate understanding about safety protocols.

Impact: defined as the influence or effect of COVID-19 on maternal health service provision.

Strategies: defined as a plan to safeguard pregnant women during COVID-19.

Midwife: a woman who is trained to assist women in childbirth

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains review of relevant literature related to the research topic. A well-structured literature review begins with broad or general information, then narrows the focus to those studies most closely related to the research problem.

2.1 Overview

The COVID-19 pandemic is posing considerable challenges for countries to maintain the provision of high quality, essential maternal and newborn health services (UNICEF, 2020). Pregnant women and mothers with newborns may experience difficulties accessing services

due to transport disruptions and lockdown measures or be reluctant to come to health facilities due to fear of infection (UNICEF, 2020). Thus, a modest decline of 10% in coverage of pregnancy related and newborn health-care services were reported due to pandemics. This would result in 28,000 maternal deaths (Ncube, 2021).

2.2 Knowledge of Midwives on COVID-19 Safety Protocols

Globally, people are advised to observe physical distancing and good hygiene habits amidst the pandemic, health experts have constantly reminded that the simple practice of handwashing with soap and clean water is also one of the most effective ways to prevent the spread of germs and viruses (World Health Organization, 2021). Since June 2020, World Health Organization has recommended that healthy people wear nonmedical masks to control the spread of COVID-19, for example, in settings where physical distancing cannot be achieved (World Health Organization., 2020). Nuwagaba et al. (2020), it was reported in their study that proper hand hygiene was identified as one of the simplest most cost-effective Covid-19 control and prevention measures. It is therefore very important to understand the compliance of the community to hand hygiene.

A study was conducted in Pakistan to assess the knowledge and practices of obstetricians and midwives about personal protective equipment during COVID-19. A total of 452 respondents completed the survey. A self-administered questionnaire was designed for the study. Among the respondents, 280 were obstetricians and 172 were midwives. The study found that most (85%) participants had adequate knowledge of personal protective equipment and preventive measures. Total correct responses were 81.67%, midwives 80.3% and obstetricians 82.53%. Only 27% knew that the reuse of any item is not adequate without decontamination, which

should be done by trained staff. Only half of the respondents knew that respirator/ mask use for prolonged periods increases the risk of touching the mask and if such contact occurs hand hygiene becomes mandatory. Only 56.6% knew that disposable lab coats or impermeable plastic aprons should only be used for a small duration of contact with a patient. The study concluded that participants had good knowledge and practices regarding PPE (Izhar, Husain, Tahir, & Husain, 2020).

A phenomenological study was conducted by Labrague et al., (2017) in Southern Nigeria among student nurses at the clinical learning environment to determine their knowledge on hand washing. A purposive sampling method was employed to recruit 109 participants for the study. Findings revealed a low-to-moderate knowledge of and compliance with hand hygiene among nursing students. In addition, there were significantly higher rates of hand hygiene other compliance in nursing students when compared to medical students.

In a quantitative cross-sectional study among 506 domestic visitors to the prophets Mosque in Al Madinah city by Mahdi et al., (2020), the researches sought to find the hand hygiene knowledge, perception, and practices among domestic visitors to the prophet's Mosque. Findings revealed that a quarter (24.5%) of the participants had a poor knowledge on hand hygiene. Nearly three-quarters (74.3%) had a medium knowledge, and a small proportion (1.3%) had a high knowledge level on hand hygiene.

An exploratory study in Nigeria was conducted to assess the knowledge of nurses on hand hygiene at St. Catherine's Specialist Hospital, Abuja. A total of 200 respondents were recruited through probability based stratified sampling. The findings showed that nurses' knowledge on hand-hygiene was moderate (84%) among the total study sample population.

Again, 15% of the participants had poor knowledge and 1% had good knowledge (Mersha, et al., 2021).

A study was conducted to examine the hand hygiene knowledge, beliefs, and practices of Italian nursing and medical students with the aim of informing undergraduate curricula, a questionnaire was administered to convenience sample of 117 nursing and 119 medical students in a large university in Rome, Italy. The result of the study showed that nursing students' hand hygiene knowledge, compliance and self-reported hand hygiene practices were significantly higher than those of medical students (Van De Mortel, Kermode, Progano, & Sansoni, 2018).

A study in Ethiopia found that of the total of 408 respondents, (76.5%) of them had poor knowledge about face mask. Almost all (85.8%) and (89.7%) of the health professional know surgical mask can protect from COVID19 and correct use of surgical face mask (White facing in), respectively. Two hundred fifty-four (62.3%) and (56.4%) of the participants know the lyres of the surgical mask (three layers) and the layer which acts as a filter media (middle layer), respectively. Concerning the type of mask, for protection against COVID-19, (67.6) of the participants were responded to the correct answer. Less than half (48%) of them know the duration of surgical mask use (8 hours) (Tadesse, Tesfaye, Alemu, & Haileselassie, 2020).

2.3 Impact of COVID-19 on Maternal Health Service Provision

The pandemic has affected every sector of human life including religious activities, funerals, businesses, education, public healthcare systems, and sociocultural events (World Bank, 2020). Maternal healthcare service comprises a wide range of health services provided to

mothers before pregnancy, during pregnancy, during labour, and after giving birth. These health services include: preconception care, antenatal care (ANC), prevention of mother-to-child transmission (PMTCT) of HIV, safe delivery (intrapartum care), postnatal care (PNC), and emergency obstetric care/management of obstetric complications (Nesane, Maputie, & Shilubane, 2016). A recent study done in the US reported that ANC coverage reductions of 39.3-51.9%, due to the pandemic (Ncube, 2021). Disruption of maternity services and diversion of resources away from essential pregnancy care, because of prioritizing the COVID-19 response, increased risks of maternal morbidity and mortality (Esegbona-Adeigbe, 2020). Anxiety and obsessive-compulsive symptoms in pregnant women were found to be increased during the current SARS-CoV-2 pandemic (Yassa, Yassa, & Yirmibeş, 2020).

In Kenya, there have been reports of decreased antenatal attendance, immunisations, and hospital deliveries, along with an increase in stillbirths during COVID-19 (Mwobobia, 2020). In addition, fear of contracting COVID-19 has kept many women from attending reproductive health services. Women reported similar sentiments concerning fear of infection risk at health facilities during the recent Ebola pandemic (United Nations Population Fund, 2020).

A facility-based cross-sectional study was conducted among pregnant women who attended ANC in the selected health facilities in northeast Ethiopia, which is from south Wollo zone and Oromia special zone. A total of 389 women were included in the study with a simple random sampling technique. The study revealed that 216 (55.5%) respondents missed or were late to start ANC services during the COVID-19 pandemic period. Of these, 23 (5.9%) were

due to deploying of maternal workers to COVID-19. The majority of respondents (122, 56.48%) reported it was due to fear of COVID-19 infection, followed by interruption and diversion of maternal services to COVID-19 (72, 33.33%). Similarly, 66 (17%) of the respondents reported they did not attend due to the stay at home principle and 28 (7.2%) reported it was due to costly transportation during the lockdown period. The study concluded that encouraging women's educational status, prioritizing maternal health services during COVID-19, and improving the quality of ANC service should be emphasized more (Tadesse, 2020).

An online survey was conducted in Ireland between June and July 2020. Pregnant women, aged over 18 years were recruited. A qualitative content analysis, with an inductive approach was employed. All data were analysed using IBM SPSS Version 26. Women reported that restrictions implemented in the maternity services limited their face-to face interactions with healthcare professionals and meant their partners could not attend antenatal appointments or support them in the postpartum period in the maternity setting. The lack of information on COVID-19 and pregnancy meant women had greater uncertainty about pregnancy and birth (Meaney, Leitao, Olander, & Pope, 2020).

A study conducted in Essipon Health Center, Sekondi, Ghana reported COVID-19 pandemic has presented the health team with a new challenge: maintaining essential health care services for expectant and new mothers during a pandemic. A few weeks after the country confirmed its first cases of COVID-19, the midwives were alarmed by the drop in the number of clients reporting to the facility for care, especially expectant mothers (Attramah, 2021).

2.4 Strategies by Midwives to Safeguard Pregnant Women During COVID-19.

All over the world, midwives are stepping up to the COVID-19 challenge. With UNFPA support, midwives in hard-hit countries are working round the clock to provide care for women and babies. They say they will never abandon their patients (United Nations Population Fund, 2020).

Scientists and public health officials are accelerating efforts to prevent, treat, and control COVID-19. However, minimizing exposure to SARS-CoV-2 remains the only stratagem to reduce the risk of infection. Social isolation presents additional challenges, as current maternal and child health (MCH) guidelines advocate for women to attend regular antenatal (ANC) visits and deliver in health facilities. Despite the implementation of social distancing measures in hospitals, emerging evidence indicates that contagion is worse when healthcare is centralized (Zaigham & Andersson, 2020).

Most women attending maternity services are healthy and are advised to maintain stringent social distancing (Dunlop, et al., 2020). Women who are self-isolating because someone in their household had possible symptoms of COVID-19 should defer their routine antenatal visit for 14 days, provided there is no emergency. If urgent care is required, she should visit the hospital and obstetric treatment should not be delayed by the healthcare provider (Esegbona-Adeigbe, 2020).

Staff should adhere to PPE guidelines and make every effort to observe social distancing measures at work, even when not patient facing. This includes handwashing, eating in designated areas and maintaining a distance of 2 m between colleagues, where practical.

A study was conducted in one hospital in Wuhan, China on strategies to protect against COVID-19 during the third trimester of pregnancy. The study reported that as part of the measures to protect pregnant women clinical staff strictly adhered to SARS-Cov-2 disinfection and isolation guidelines, including disinfecting all equipment and floors, and complying with isolation and transfer protocols for women, equipment, and when sending specimens (intra and inter-departmental). Disposable supplies were used when available. Stethoscopes, infusion pumps, sphygmomanometers, thermometers, and other items used for multiple patients were disinfected frequently. The study concluded that the care strategies implemented prevented complications and nosocomial infection in the third trimester of pregnancy, thus ensured the safety of women and their infants (Liu, et al., 2021).

A study conducted in Essipon Health Center, Sekondi, Ghana reported that the health center had two specialized water buckets, called Veronica buckets; a simple handwashing station that includes a bucket and a basin on top of a wooden stand available for incoming clients to wash their hands with soap under running water, and a nurse screens clients at entry for COVID-19 symptoms (Attramah, 2021).

A study in Ghana reported that an estimated 18.0% of women wore a face mask always or often. The proportion of women who practiced handwashing or sanitised their hands with alcohol-based sanitisers was 31.7%, whilst 22.0% practiced social distancing always/often (Apanga & Kumbeni, 2021).

CHAPTER THREE

MATERIALS AND METHODS

3.0 Introduction

This chapter deals with the area of the study, population of study, study design, sampling techniques, data collection method and instrument, data analysis techniques, ethical consideration and the limitations of the study.

3.1 Study area

The study was conducted at Berekum Zongo clinic. Berekum Zongo clinic is situated inside Berekum in the Bono Region of Ghana. Berekum Zongo clinic is a government owned facility. The major catchment area of the facility is Berekum Municipality. The clinic provides general services and it is National Health Insurance Scheme (NHIS) accredited. Due to the strategic location of the clinic patients from other parts of Berekum visits the clinic. The clinic offers general medical services, antenatal and postnatal services and some laboratory investigations.

3.2 The study population

The target population of the study were midwives working at Berekum Zongo clinic whiles the accessible population were midwives at the labour unit and antenatal clinic.

3.3 Study design

A cross sectional study design was adopted for the study. This design was adopted because it looks at a population at a single point in time. It also allows the comparison of many different variables at the same time.

3.4 Sampling technique and size

A convenience sampling technique was used to select participants for the study. Participant recruitment will be voluntary. A total of 50 participants was used for the study.

3.5 Data collection methods and instruments

Written questionnaires with both open and close ended questions were used in the exercise to collect the information from the respondents. Structured questionnaire was administered to health professionals who work at maternity unit, labour ward and antenatal clinic. The questionnaire will be cross – checked for accuracy. The answered questionnaire were kept in files and safely stored until they are analyzed.

3.6 Data analysis technique

All returned questionnaires were checked for missing data. Questionnaires that were left blank or half-filled were excluded. Data was entered and analyzed using Microsoft excel and results were presented in the form of frequencies and percentages.

3.7 Ethical consideration

Permission to conduct the study was given by the administrator of Zongo Clinic, Berekum. The research team believed that maintaining the confidentiality and anonymity of the participants is crucial to this study. Informed consent was obtained after comprehensive explanation of the purpose and procedure of the study to the participants. Participants were informed about their right to withdraw or refuse to be part of the study at any point in the course of the interview and that would not affect them negatively and were assured of confidentiality of all information that was obtained. Furthermore, the identities of the participants were disclosed, and only aggregate data were reported.

3.8 Limitations of the Study

The study was limited by the time period allocated for the completion of the study. Secondly, because of time limit and inadequate financial resources the study was conducted with a small sample size.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0 Data Presentation & Analysis

This chapter deals with analysis of data collected from the field of study and the results obtained from the analysis. The study findings are presented in tables and figures based on the demographic characteristics and specific objectives.

4.1 Socio-demographic Information

Understanding the socio-demographic characteristics of respondents is highly essential in assessing self-medication among health care workers. This section aims to provide a comprehensive analysis of the socio-demographic characteristics of the 50 midwives who participated in the study. The following analysis highlights the percentages and makes informed comparisons across various socio-demographic variables.

The age distribution revealed that 52% (n=26) were between the ages of less than 30 years. The second-largest age group comprised 34% (n=17) of the respondents, who ranged from 30

to 40 years and comparatively smaller proportions were observed for respondents aged above 40 years (14%, n=7).

Marital status played a crucial role in the socio-demographic profile of the respondents in the study. Among these participants, 58% (n=29), stated that they were married, while 38% (n=19) reported being single. The smallest proportion belonged to the divorced category, with only 4% (n=2) of the participants identifying as divorced.

The study also assessed the working departments of the midwives. Among the respondents, 58% (n=29) indicated they were labour followed by antenatal 28% (n=14) and maternity 14% (n=7).

Analyzing the educational backgrounds of the participants provides insights into their educational attainment levels. The majority, 72% (n=36) of the midwives were diploma holders followed by degree holders 28% (n=14).

Regarding working experience, almost half, 48% (n=29) of the respondents had 5 to 10 years of working experience. Nearly one third (34%, n=17) of the midwives had less than 5 years of working experience. Only (8%, n=4) of the midwives had more than 10 years of working experience.

Table 4. 1: Summary of socio-demographic characteristics of respondents

Variable	**Categories**	**Frequency (n)**	**Percentage (%)**
Age (Years)	<30	26	52
	30-40	17	34
	>40	7	14
	Total	**50**	**100**
Marital status	Married	29	58
	Single	19	38
	Divorced	2	4

	Total	**50**	**100**
Working department	Labour	29	58
	Antenatal	14	28
	Maternity	7	14
	Total	**50**	**100**
Educational level	Diploma	36	72
	Degree	14	28
	Other	0	0
	Total	**50**	**100**
Work experience (Years)	<5	17	34
	5-10	29	48
	>10	4	8
	Total	**50**	**100**

4.2 Knowledge of Midwives on COVID-19 Safety Protocols

Table 4. 2: Distribution of knowledge of midwives on COVID-19 Safety Protocols

Statement		**Agree**	**Disagree**	**Don't know**
WHO has recommended wearing of nose mask in areas where physical distancing cannot be achieved?	n	44	4	2
	%	88	8	4

Hand hygiene becomes compulsory whenever an individual touches the nose mask	n	43	2	5
	%	86	4	10
Surgical nose mask can protect individuals from COVID-19	n	36	10	4
	%	72	20	8
Incorrect usage of nose mask poses a health risk	n	47	0	3
	%	94	0	6
One way of reducing COVID 19 transmission is to promote good hand hygiene practices	n	39	4	7
	%	78	8	14
Proper hand hygiene is carried out with soap under running water	n	48	0	2
	%	96	0	4

To analyze the data provided in Table 4.2, let's delve into the insights derived from the knowledge of midwives on COVID-19 Safety Protocols.

1. WHO has recommended wearing of nose mask in areas where physical distancing cannot be achieved:

- Agree: 88%

- Disagree: 8%

- Don’t know: 4%

The data reveals that 88% of the respondents endorsed that WHO has recommended wearing of nose mask in areas where physical distancing cannot be achieved. This indicates a very good understanding COVID-19 Safety Protocols. The percentage of disagreement (8%) indicates that some respondents had reservations about this suggestion, while a smaller fraction (4%) did not know.

2. Hand hygiene becomes compulsory whenever an individual touches the nose mask:

- Agree: 86%

- Disagree: 10%

- Don’t know: 4%

The vast majority (86%) of the respondents agreed that hand hygiene becomes compulsory whenever an individual touches the nose mask. The relatively low percentage of disagreement (10%) suggests a general acceptance of the importance of hand hygiene. A small percentage (4%) of the respondents did not know.

3. Surgical nose mask can protect individuals from COVID-19:

- Agree: 72%

- Disagree: 20%

- Don’t know: 8%

A significant majority (72 %) of the respondents agreed that surgical nose mask can protect individuals from COVID-19. The low percentage of disagreement (20%) suggests a strong endorsement of the fact that surgical nose mask can protect individuals from COVID-19.

However, a small proportion (8%) did not about the connection between surgical nose mask and its protection from COVID-19.

4. Incorrect usage of nose mask poses a health risk:

- Agree: 94%

- Disagree: 0%

- Don’t know: 6%

A whooping (94%) of the respondents agreed that incorrect usage of nose mask poses a health risk.

5. One way of reducing COVID 19 transmission is to promote good hand hygiene practices:

- Agree: 78%

- Disagree: 8%

- Don’t know: 14%

A significant majority (78%) of the respondents agreed that one way of reducing COVID 19 transmission is to promote good hand hygiene practices. A small section (14%) did not know about how to reduce COVID 19 transmission. The low percentage of disagreement (8%) suggests a strong endorsement of the fact that one way of reducing COVID 19 transmission is to promote good hand hygiene practices.

6. Proper hand hygiene is carried out with soap under running water:

- Agree: 96%

- Disagree: 0%

- Don’t know: 4%

A whooping (96%) of the respondents agreed that proper hand hygiene is carried out with soap under running water. A small percentage (4%) did not know whether proper hand hygiene is carried out with soap under running water.

4.3 Impact of COVID-19 on Maternal Health Service

Table 4. 3: Distribution respondents’ impact of COVID-19 on Maternal Health Service

Statement		**Agree**	**Disagree**	**Not sure**
COVID-19 pandemic has had effect on public healthcare systems	n	43	2	5
	%	86	4	10
COVID-19 has increased the risk of maternal morbidity	n	36	10	4
	%	72	20	8
Pregnant women were anxious during the peak of the pandemic	n	47	0	3
	%	94	0	6
Fear of contracting COVID-19 kept women from attending ANC	n	39	4	7
	%	78	8	14
COVID-19 restrictions prevented women from attending hospital to seek for healthcare	n	48	0	2
	%	96	0	4

To analyze the data provided in Table 4.2, let's delve into the insights derived from the respondents' impact of COVID-19 on Maternal Health Service.

1. COVID-19 pandemic has had effect on public healthcare systems:

- Agree: 86%

- Disagree: 10%

- Don't know: 4%

The vast majority (86%) of the respondents agreed that COVID-19 pandemic has had effect on public healthcare systems. The relatively low percentage of disagreement (10%) suggests a general acceptance of the effect COVID-19 has had on public healthcare systems. A small percentage (4%) of the respondents did not know.

2. COVID-19 has increased the risk of maternal morbidity:

- Agree: 72%

- Disagree: 20%

- Don't know: 8%

A significant majority (72 %) of the respondents agreed that COVID-19 has increased the risk of maternal morbidity. The low percentage of disagreement (20%) suggests a strong endorsement of the fact that COVID-19 has increased the risk of maternal morbidity.

3. Pregnant women were anxious during the peak of the pandemic:

- Agree: 94%

- Disagree: 0%

- Don’t know: 6%

A whooping (94%) of the respondents agreed that pregnant women were anxious during the peak of the pandemic.

4. Fear of contracting COVID-19 kept women from attending ANC:

- Agree: 78%

- Disagree: 8%

- Don’t know: 14%

A significant majority (78%) of the respondents agreed that fear of contracting COVID-19 kept women from attending ANC. A small section (14%) did not know whether fear of contracting COVID-19 kept women from attending ANC. The low percentage of disagreement (8%) suggests a strong endorsement of the fact that fear of contracting COVID-19 kept women from attending ANC.

5. COVID-19 restrictions prevented women from attending hospital to seek for healthcare:

- Agree: 96%

- Disagree: 0%

- Don’t know: 4%

A whooping (96%) of the respondents agreed that COVID-19 restrictions prevented women from attending hospital to seek for healthcare.

4.4 Strategies to Protect Pregnant Women During COVID-19

Table 4. 4: Distribution of respondents' strategies to protect pregnant women during COVID-19

Statement		**Yes**	**No**
Physical distancing has been ensured during ANC visits and bed lay outs in the wards	n	47	3
	%	94	6
Women have been told to defer their routine ANC visit for 14 days if a close relative had possible COVID-19 symptoms	n	36	14
	%	72	28
Devices used on patients such as thermometers, stethoscopes and sphygmomanometers were frequently disinfected	n	49	1
	%	98	2

Veronica buckets have been provided for incoming clients to wash their hands with soap under running water	n	50	0
	%	100	0
Screening of pregnant clients at entry points for COVID-19 symptoms	n	50	0
	%	100	0

Table 4.4 illustrates the distribution of respondents' strategies to protect pregnant women during COVID-19.

All (100%) the respondents agreed that screening of pregnant clients at entry points for COVID-19 symptoms is a strategy for protecting pregnant women during COVID-19. All (100%) the respondents agreed that veronica buckets have been provided for incoming clients to wash their hands with soap under running water is a strategy for protecting pregnant women during COVID-19. Almost all (98%) the respondents endorsed that devices used on patients such as thermometers, stethoscopes and sphygmomanometers were frequently disinfected so as to protect pregnant women during COVID-19. Majority (72%) of the respondents were told to defer their routine ANC visit for 14 days if a close relative had possible COVID-19 symptoms so as to limit the spread of the virus. Vast majority (94%) of the respondents indicated that physical distancing has been ensured during ANC visits to protect pregnant women during COVID-19.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS, RECOMMENDATIONS

5.0 Introduction

The findings are briefly discussed with references to support the study. The chapter also includes the conclusions drawn from the various findings of the study and finally makes recommendations to help curtail the situation at hand.

5.1 Discussions

5.1.1 Knowledge of Midwives on COVID-19 Safety Protocols

In the current study, the data reveals that 88% of the respondents endorsed that WHO has recommended wearing of nose mask in areas where physical distancing cannot be achieved. This indicates a very good understanding COVID-19 Safety Protocols. Similarly, WHO (2020) has recommended that healthy people wear nonmedical masks to control the spread of COVID-19, for example, in settings where physical distancing cannot be achieved.

The current study found that vast majority (86%) of the respondents agreed that hand hygiene becomes compulsory whenever an individual touches the nose mask. Equally, Mahdi et al. (2020) found that most participants 65.8% believed cleansing hands with antiseptic/antibacterial soap and water is a very effective hand hygiene method.

The current study found that significant majority (78%) of the respondents agreed that one way of reducing COVID 19 transmission is to promote good hand hygiene practices. Correspondingly, WHO (2020) reported that as COVID-19 can spread through contact with contaminated surfaces, hand hygiene remains a fundamental control and prevention measure and is strongly recommended to curb its transmission, especially in the absence of a clinically approved vaccine or antiviral prophylaxis. Again, Dwipayanti et al. (2021) added that 61.3% of respondents perceived handwashing as an effective measure to prevent COVID-19 and other diseases.

A whooping (96%) of the respondents agreed that proper hand hygiene is carried out with soap under running water. Similarly, according to the American Center for Disease Control

and Prevention (2020), proper handwashing is washing your hands with soap under clean running water.

5.1.2 Impact of COVID-19 on Maternal Health Service

The current study found that vast majority (86%) of the respondents agreed that COVID-19 pandemic has had effect on public healthcare systems. Correspondingly, World Bank (2020) reported that the pandemic has affected every sector of human life including religious activities, funerals, businesses, education, public healthcare systems, and sociocultural events.

The current study found that significant majority (72 %) of the respondents agreed that COVID-19 has increased the risk of maternal morbidity. Similarly, Esegbona-Adeigbe (2020) reported that disruption of maternity services and diversion of resources away from essential pregnancy care, because of prioritizing the COVID-19 response, increased risks of maternal morbidity and mortality

In the current study, a whooping (94%) of the respondents agreed that pregnant women were anxious during the peak of the pandemic. Equally, Yassa et al. (2020) reported an increase in anxiety and obsessive-compulsive symptoms in pregnant women during the current SARS-CoV-2 pandemic.

In the current study, a significant majority (78%) of the respondents agreed that fear of contracting COVID-19 kept women from attending ANC. Similarly, United Nations Population Fund (2020) reported that fear of contracting COVID-19 has kept many women from attending reproductive health services.

In the current study, a whooping (96%) of the respondents agreed that COVID-19 restrictions prevented women from attending hospital to seek for healthcare. Similarly, Tadesse (2020) found that 66 (17%) of the respondents reported they did not attend due to the stay at home principle and 28 (7.2%) reported it was due to costly transportation during the lockdown period.

5.1.3 Strategies to Protect Pregnant Women During COVID-19

The current study found that all (100%) the respondents agreed that screening of pregnant clients at entry points for COVID-19 symptoms is a strategy for protecting pregnant women during COVID-19. All (100%) the respondents agreed that veronica buckets have been provided for incoming clients to wash their hands with soap under running water is a strategy for protecting pregnant women during COVID-19. Almost all (98%) the respondents endorsed that devices used on patients such as thermometers, stethoscopes and sphygmomanometers were frequently disinfected so as to protect pregnant women during COVID-19. Similarly, A study conducted Attramah (2021) found that the health center had two specialized water buckets, called Veronica buckets; a simple handwashing station that includes a bucket and a basin on top of a wooden stand available for incoming clients to wash their hands with soap under running water, and a nurse screens clients at entry for COVID-19 symptoms.

5.2 Conclusion

The study concluded that respondents had very good knowledge on COVID-19 safety protocols. The leading impact of COVID-19 were effects on public health systems, anxiety

and public restrictions. The most important strategies highlighted by respondents were screening of pregnant and hand hygiene.

5.3 Recommendation

Based on the findings of the study the following recommendations were made;

1. Midwives need to be made aware of the importance of hand hygiene and the negative effects that will be caused when it is not followed.
2. All people who hold administrative positions in hospitals or schools should take the necessary measures to properly observe and implement the guidelines for hand hygiene.
3. Hospitals and institutions should avoid the use of bar soaps in hand hygiene since they can harbor bacteria.
4. Further studies should be conducted to assess the influence of socio-demographic characteristics on the knowledge of midwives on COVID-19.

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QUESTIONNAIRE

Dear Respondent,

This questionnaire is designed to collect data on the topic: ‘‘strides of midwives in Zongo Clinic, Berekum for the protection of pregnant women in a COVID-19 pandemic’’.

You are kindly requested to answer the questions below by indicating a tick or writing the appropriate answered when needed. Confidentially will be observed therefore your name will not be disclosed in this research. Please answer the questions as frank and possible.

Thank you.

Participant Consent: Yes [ ] No [ ]

Instruction: Please Tick [√] The Appropriate Box Where Applicable.

SECTION A: DEMOGRAPHIC DATA

1. Age

   a. <30 years []

   b. 30 – 40 years []

   c. >40 years []

2. Marital status

   a. Single []

   b. Married []

   c. Divorced []

3. Working department

a. Labour []

b. Antenatal []

c. Maternity []

4. Educational level
   a. Diploma []
   b. Degree []
   c. Other (specify): …….
5. Work experience (Years)
   a. <5 []
   b. 5-10 []
   c. >10 []

SECTION B: KNOWLEDGE OF MIDWIVES ON COVID-19 SAFETY PROTOCOLS.

6. WHO has recommended wearing of nose mask in areas where physical distancing cannot be achieved?

   a. Agree [] b. Disagree [] c. Don't know []
7. Hand hygiene becomes compulsory whenever an individual touches the nose mask.

   a. Agree [] b. Disagree [] c. Don't know []
8. Surgical nose mask can protect individuals from COVID-19

   a. Agree [] b. Disagree [] c. Don't know []
9. Incorrect usage of nose mask poses a health risk

a. Agree [] b. Disagree [] c. Don't know []

10. One way of reducing COVID 19 transmission is to promote good hand hygiene practices

    a. Agree [] b. Disagree [] c. Don't know []

11. Proper hand hygiene is carried out with soap under running water

    a. Agree [] b. Disagree [] c. Don't know []

SECTION C: IMPACT OF COVID-19 ON MATERNAL HEALTH SERVICE

12. COVID-19 pandemic has had effect on public healthcare systems

    a. Agree [] b. Disagree [] c. Not sure []

13. COVID-19 has increased the risk of maternal morbidity

    a. Agree [] b. Disagree [] c. Not sure []

14. Pregnant women were anxious during the peak of the pandemic

    a. Agree [] b. Disagree [] c. Not sure []

15. Fear of contracting COVID-19 kept women from attending ANC.

    a. Agree [] b. Disagree [] c. Not sure []

16. COVID-19 restrictions prevented women from attending hospital to seek for healthcare

    a. Agree [] b. Disagree [] c. Not sure []

SECTION D: STRATEGIES TO PROTECT PREGNANT WOMEN DURING COVID-19

17. Physical distancing has been ensured during ANC visits

    a. Yes [] b. No []

18. Women have been told to defer their routine ANC visit for 14 days if a close relative had possible COVID-19 symptoms.

    a. Yes [] b. No []

19. Devices used on patients such as thermometers, stethoscopes and sphygmomanometers were frequently disinfected

    a. Yes [] b. No []

20. Veronica buckets have been provided for incoming clients to wash their hands with soap under running water

    a. Yes [] b. No []

21. Screening of pregnant clients at entry points for COVID-19 symptoms.

    a. Yes [] b. No []

RESEACH TOPIC

STRIDES OF MIDWIVES IN ZONGO CLINIC, BEREKUM FOR THE PROTECTION OF PREGNANT WOMEN IN A COVID 19 PANDEMIC.

STUDENTS NAME

1. ADU AMPONSAH GIFTY
2. OBENG KISSIWAA JESSICA
3. OBUOBI FAUSTINA

THE SUPERVISOR

NAME: MS. CELESTINE AHIAWORNU

SIGNATURE .....

THE MANAGER,

ZONGO CLINIC

POST OFFICE BOX 63

BEREKUM.

NATIONAL CATHOLIC HEALTH SERVICE (DIOCESE OF SUNYANI)
HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE
BEREKUM

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Berekum, B/A
Ghana, W/Africa
Tel. 0352222124
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Our Ref. .....
Your Ref. HFNMTC/GC/011/080723

Date ...August 07, 2023.....

The Hospital Administrator
Zongo Clinic
P.O. Box 63
Berekum

Dear Administrator,

PERMISSION TO CONDUCT RESEARCH

I wish to introduce to you the under listed names of final year students of the College:

1. **Adu Amponsah Gifty**
2. **Obeng Kissiwaa Jessica**
3. **Obuobi Faustina**

As part of the pre –requisite for the award of Diploma in Midwifery they are to conduct a research study, on the topics 'Strides of Midwives in Zongo Clinic, Berekum for the Protection of Pregnant Women in a COVID – 19 Pandemic'.

I would be grateful if you could assist them with any material or help they may need to accomplish this task.

Thank you.

Yours sincerely

.....
Celestine Ahiawornu
Supervisor

For: **Principal**