SCHOOL OF NURSING AND MIDWIFERY

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

FACTORS INFLUENCING NEW-BORN RESUSCITATION PRACTICES AMONG NURSES AND MIDWIVES IN THE EASTERN REGION, GHANA

BY

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PHILOSOPHY DEGREE IN PAEDIATRIC NURSING

JANUARY, 2022

DECLARATION

I, Yvonne Dorcas Berko do thereby declare that with the exemption of references made from other studies and authors which I have duly acknowledged, the entire write up is my original work which has been supervised.

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ABSTRACT

The study explored the factors that influence New-born resuscitation (NR) practices among nurses and midwives in the Eastern Region of Ghana. The focus of the thesis was to describe the attitudes and explain the beliefs and perceptions (subjective norms) of nurses and midwives towards New-born resuscitation. The study sought out to identify the behavioural intentions of nurses and midwives and examined the practices (behaviour) of new-born resuscitation among nurses and midwives. This was a qualitative study and was carried out using face-to-face, in-depth semi-structured interviews. Seventeen nurses and midwives who work in the Neonatal Intensive Care Units and Maternity wards from the Nsawam Government Hospital and the Regional Hospital, Koforidua were interviewed.

The study found that good knowledge and understanding of NR had a positive impact on the attitude of nurses and midwives. Also, people of referents and the family had a great influence on NR performance. In addition, culture, and religion, directly and indirectly, impacted practice. On the contrary, traditions from the ward and belief in the archaic ways of managing new-borns with breathing difficulties had adverse impact on NR practice. Also, other factors such as lack of training, shortage of human and material resources, inadequate space, poor supervision, and monitoring were identified as barriers to NR performance among the nurses and midwives.

There is the need for regular training, inculcating family centred care in training, monitoring, and provision of the necessary amenities for effective NR which will go a long way to improve the nurse or midwife's behaviours towards NR.

DEDICATION

I dedicate this thesis to my brother and parents: Mr Dennis Bamfo Berko, Mr and Mrs Kumah Berko, my sisters, nieces, and nephew.

ACKNOWLEDGEMENT

I will be eternally grateful to my supervisors, Dr. Florence Naab and Dr. Caroline Badzi, for their kindness and patience. I am extremely grateful for your assistance and counsel. My heartfelt thanks also go to my mother, who has been a pillar of strength and support throughout the entire study.

My profound gratitude also goes to the nurses and midwives at the Regional Hospital Koforidua and the Nsawam Government Hospital, not to mention all the participants who took part in the study. To my colleagues and friends, thank you for your encouraging words during the difficult times; your words pushed me this far.

Also, my heartfelt thanks go to Dr. Menford Owusu Ampomah, Mr. Mark Annan, Agnes Pipim Antwiwaa, and Rukaya Owusu for serving as pillars and angels in disguise. Finally, I would like to thank all the lecturers at the School of Nursing and Midwifery, University of Ghana, Legon, for their mentorship and coaching throughout my studies.

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LIST OF ABBREVIATION

AAP	-	America Academy of Paediatricians
GHS	-	Ghana Health Service
GDHS	-	Ghana Demographic and Health Survey
GMHS	-	Ghana Maternal Health Survey
HBB	-	Helping Babies Breathe
HBM	-	Health Belief Model
LMIC	-	Low-Middle-Income Countries
MEBCI	-	Making Every Baby Count Initiative
NICU	-	Neonatal Intensive Care Unit
NGO	-	Non-Governmental Organisations
NR	-	New-born Resuscitation
PATH	-	Program for Appropriate Technology in Health
SBA	-	Skilled Birth Attendant
TRA	-	Theory of Reasoned Action
WHO	-	World Health Organisation

CHAPTER ONE

INTRODUCTION

1.1 Background

New-born intrapartum complications are a leading cause of new-born mortality worldwide, especially in developing countries. Intrapartum complications, also known as birth asphyxia, manifest as the new-born's inability to initiate or sustain breathing, and account for roughly one-quarter of all new-born deaths (Antonucci et al., 2014; Bailey et al., 2017; Ljungblad et al., 2019; Odjidja, 2017). It is estimated that at least 75% of all perinatal deaths happened within the first week of life, with nearly all these mortalities in low- and middle-income countries (LMICs) (Ljungblad et al., 2019; Mzurikwao, 2018). Intrapartum complications (including asphyxia) account for 24% of neonatal mortality in LMICs and are the world's second leading cause of new-born mortality, trailing only preterm birth deaths. In Ghana, adverse intrapartum events such as birth asphyxia account for roughly 23% of new-born deaths (Alhassan et al., 2019; Gomez et al., 2018). Intrapartum-related complications, including birth asphyxia, are the second leading cause of new-born mortality in Ghana. Additionally, birth asphyxia complications account for most of the cognitive impairment and various forms of mental retardation among children, including cerebral palsy (Abdul-Mumin et al., 2021). The importance of every baby breathing or being breathed for within the first minute of life is critical, because it can help avoid complications on the baby as well as prevent new-born death. Research has indicated that effective new-born resuscitation within the first minute of life, can reduce new-born mortality by 30%, reduce the complications associated with birth asphyxia, and aid in the new-born's early recovery (Chinbuah et al., 2020; Hug et al., 2019; Shikuku et al., 2018). The role of nurses and midwives is crucial in ensuring that every baby breathes within the first minute of life. Nurses and midwives continue to be on the front lines of approximately 80% of deliveries in Ghana and are

frequently the first professionals' new-borns meet on earth. As a result, it is essential to understand the factors that influence NR performance among nurses and midwives within the Ghanaian context, in the clinical setting (Darmstadt et al., 2005).

The World Health Organization (WHO, 2016) recommended, that all countries increase skilled birth attendant (SBA) attendance and care of pregnant women to help reduce maternal and new-born mortality. The WHO defines SBA as a group of health professionals who have been trained in the skills necessary for the management of normal pregnancies, childbirth, and the postnatal period, as well as the management of complications associated with pregnancy and delivery at each stage of this journey for the expectant mother and the neonate, including early referral for prompt attention and care (Bailey et al., 2017)

Darmstadt et al. (2005) estimated that by implementing sixteen (16) simple but cost-effective interventions, an average of fifty-seven (57) per cent of new-born mortalities could be avoided. These include advocating for every single delivery to be performed by an SBA, ensuring clean delivery practices among health providers and SBAs, regular labour surveillance, addressing issues related to intrapartum complications through training. Again, raising awareness about good NR practices and adherence to NR protocols by SBAs, as well as the early detection and treatment of infections. As a result, the importance of SBAs in the prevention of pregnancy and birth complications, including the elimination of new-born deaths, cannot be overstated. A properly trained SBA could be able to reduce new-born mortality during labour, delivery, and the first few hours after birth. Intrapartum-related birth asphyxia and sepsis alone, accounted for more than half of all new-born's deaths worldwide, with intrapartum-related birth asphyxia being the leading cause of stillbirths (Ashish et al., 2020; Bailey et al., 2017; Darmstadt et al., 2005; Kamath-Rayne et al., 2015; Singh et al., 2014).

The American Academy of Paediatrics, in collaboration with other non-governmental organizations, developed a simple but effective logarithm for low-middle-income countries,

to enable health workers to provide quality care to new-borns, reducing both morbidity and mortality related to intrapartum complications, including asphyxia. The program gives providers standardized training, knowledge, and skills in NR, to reduce global perinatal mortality, particularly in under-resourced countries. Since its introduction in 2010, Helping Baby Breathe (HBB) has been taught to approximately 300,000 birth attendants in 77 countries, and is currently being implemented in Sub-Saharan Africa, Asia, and Latin America, including Ghana (Bang et al., 2014; Chinbuah et al., 2020; Mzurikwao et al., 2018; Sepulveda et al., 2003; Shikuku et al., 2018).

Although nurses and midwives in Ghana are knowledgeable about new-born resuscitation and the management of babies with breathing difficulties at birth, we continue to see high rates of new-born mortality due to intrapartum complications (Alhassan et al., 2019). There is also a scarcity of information on why nurses and midwives are unable to put their knowledge of NR into practice. Therefore, using the theory of Reasoned Action as a theoretical framework and structure, the study investigated the factors influencing NR performance among nurses and midwives. The next section will focus on explaining why the study is necessary.

1.2 Problem Statement

In Ghana, intrapartum hypoxia and asphyxia are the leading causes of new-born death (Avoka et.al, 2018; Dadzie et.al, 2021). By 2030, the Sustainable Development Goal (SDG) 3.2, calls for a reduction in neonatal mortality to as low as 12 per 1000 live births and the elimination of all avoidable new-born deaths (Hug et al, 2019; Moro, 2018). If the appropriate intervention is provided, intrapartum morbidity and mortality can be reduced. There has been an increase in the number of deliveries at the various health facilities across the Eastern region of Ghana, with about 51 per cent of babies being delivered under supervision by a skilled birth attendant. However, there are high levels of mortality among

new-borns and higher numbers of stillbirths recorded on daily basis within the region (UN-IGME, 2017). The institutional neonatal mortality rate for the Eastern Regional Hospital, which by far is the biggest and the major referral facility in the region in 2019, was 40.1 per 1000 live births compared to 27.9 per 1000 live births in 2015 (see Appendix G). Additionally, the same facility has seen only a marginal improvement in the cases related to birth asphyxia (see Appendix G). Therefore, if the country wants to achieve SDG 3.2, then more research needs to be done on the factors that hinder or encourage the performance of quality care to the new-born with breathing difficulties. The researcher is an experienced Paediatric Senior Nurse, working in a different facility within the Eastern region. Therefore, the researcher's role in participating in new-born resuscitations prompted the research into the problem.

Nurses and midwives who work within the birth setting of most facilities, form about 80% of the frontline healthcare providers when it comes to the care of the new-born immediately after birth. Their concerns and competencies when it comes to NR are of high importance. The challenges they face on daily basis, their experiences, and other very essential factors concerning the performance of NR matter, if Ghana wants to decrease new-born mortality to 12 per 1000 live births by the year 2030. At the time of this study, there was little to no documented study within the Eastern Region on the challenges nurses and midwives encounter concerning the performance of new-born resuscitation on babies with breathing difficulties immediately after birth, which by far is one of the major causes of admissions and mortalities within the region, hence, the need for this study.

1.3 Purpose of the Study

The purpose of the study was to explore the various factors that influence new-born resuscitation practices among nurses and midwives in the Eastern Region of Ghana.

1.4 Specific Objectives

The specific objectives of the study were derived from the constructs of the theory to

1. Describe the attitudes of nurses and midwives towards new-born resuscitation.
2. Explain the beliefs and perception (subjective norms) of nurses and midwives towards new-born resuscitation.
3. Identify the behavioural intentions of nurses and midwives towards the performance of the new-born resuscitation.
4. Examine the practices (behaviour) of new-born resuscitation among nurses and midwives.

1.5 Research Questions

1. What are the attitudes of nurses and midwives towards new-born resuscitation?
2. How do the beliefs and perceptions (subjective norms) of nurses and midwives affect new-born resuscitation?
3. What are the behavioural intentions of nurses and midwives towards the performance of new-born resuscitation?
4. What are the practices (behaviour) of new-born resuscitation among nurses and midwives?

1.6 Significance of the Study

The Sustainable Development Goal (SDG) 3.2 calls for new-born mortality to be reduced to at least 12 deaths per 1000 live births by 2030. As a result, reducing new-born morbidities and mortalities is critical, and the findings of this study can help improve new-born care, as well as the quality-of-care nurses and midwives provide to babies with breathing difficulties immediately after birth. The findings of the study will serve as an important resource material for stakeholders to see the need to train more paediatric and neonatal nurses, to promote good practices and adherence to NR protocols. The study can also be used as a guide to incorporate

other factors such as religiosity, culture, and family management during NR, into training programs for healthcare professionals.

1.7 Operational Definitions of Terms

For this research, some key terms were explained to avoid confusing with certain terms that were used and other similar terms that might have been used in other studies.

Influences: the motivating factors that enable either a nurse or midwife to perform new-born resuscitation. This can be the effect from others, knowledge, confidence, and previous encounters with new-born resuscitation.

New-born: a baby born within the first 24 hours of life.

Resuscitation: drying, suctioning, stimulation and the use of bag and mask to provide respiratory assistance to a new-born with breathing difficulty.

Practices: the negative or positive action taken by the skilled birth attendant to help the new-born establish and maintain breathing.

Skilled Birth Attendant: nurses and midwives at the labour ward, theatre, and Neonatal Intensive Care Unit (NICU).

Attitude: the performance of NR by the nurse or midwife in relation to how they perceive the procedure as important to the new-born with breathing difficulties. For the purpose of the study and per the model used; attitude precedes behaviour.

Behaviour: the performance of NR by the nurse or midwife on a new-born who needs resuscitation.

1.8 Summary

NR is a very important procedure needed to save the lives of new-borns who needs resuscitation immediately after birth. Nurses and midwives accounts for the majority of health care providers that perform this procedure on new-borns. Research has shown that the ability of the skilled birth attendant (SBA) to help the new-born breathe immediately after birth is essential. The researcher, therefore, explored the factors that influenced their practice at the clinical field. The research questions and objectives were used as the guide to find concrete answers. The chapter, however, discussed the background of the study, problem statements, objectives, and research questions. Furthermore, the researcher clarified the operational definitions of specific terms in the context of the study. The following chapter deliberates on the study's theoretical framework (Theory of Reasoned Action) and reviewed relevant literature on the research topic.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

The aim of this study was to investigate the factors influencing the performance of neonatal resuscitation among nurses and midwives. To achieve this aim, it was essential to first map out the theoretical framework and understand the existing body of literature in relation to both the aim and the proposed research questions, to ensure the primary research questions were appropriately formulated in relation to the existing body of evidence on the topic. This chapter is therefore, divided into two sections: (1) which describes the theoretical framework and (2) reviewing the relevant empirical literature.

Theoretical framework deals with theory relevant to the area or phenomenon under study, whereas literature review deals with academic work or research studies based on a specific topic or phenomenon. This allowed the researcher access to additional relevant information and findings on the area under investigation. And so, both theoretical framework and literature review was conducted for the study. These served as a skeleton for the entire study which directed the course of the entire work. A more vivid description on both the theoretical framework and literature review are discussed comprehensively in the subsequent sections (see section 2.1 and 2.2).

2.1 Search for Theoretical Framework

Several theories were considered by the researcher prior to the selection of the main theory to be used for the study. This was to give room for further elaboration on the most appropriate theory that best defines the intentions of the researcher to get the needed results at the end of the research. The two other theoretical frameworks considered for this study were Deontological Ethics Theory and the Health Belief Model (HBM). Deontology is an ethical theory and dominate decision making in medical care and health care. The concept of deontological ethics was introduced by the philosopher Immanuel Kant (Kant, 1987: 2012; 2015). Kant grounded his duty-based ethical values in relations to universal moral responsibilities. Moreover, Kant, thoughtful that everyone has an integral value, reasons that the autonomy, dignity, and respect about everybody should be accentuated. Deontology consents for plurality of duty-based ethical principles, such as doing no harm, promise keeping, etc. Deontological ethical theory stresses on the human value, emphasising the ideologies of respect for autonomy, beneficence, non-maleficence, and justice. Thus, deontological ethics can help health care professionals understand more the four values, about respect for autonomy, non-maleficence, and justice, as the principles of humanity values, and beneficence as a principle of maximizing human happiness and relieving suffering. Deontological ethics are inclined to be patient-centered; hence, consequences are not used to justify means. Therefore, even though any decisions may not lead to good outcomes for society, conclusions made, grounded on deontological ethics may be apt for an individual. Nevertheless, deontological ethics could cause some frustration and dissatisfaction. Decisions on health issues may cause conflicts in medical ethics and conflicts between healthcare professional and patients/relatives. It is, therefore, not easy for healthcare professionals to find a balance between this ethical approach.

Another theory of consideration for this study was the Health Belief Model (HBM). This theory was developed in the early 1950s by social scientists at the U.S. Public Health Service. This model posits that a person's belief in the effectiveness of a recommended health behaviour or action will predict the likelihood that the person will adopt behaviour. Ultimately, an individual's course of action depends on their perceptions of the benefits and barriers related to the behaviour. Therefore, HBM is more perception-based and does not account for a person's attitudes, beliefs, or other individual determinants that dictate a person's acceptance of behaviour. Both models/theories above, therefore, lacks action-related constructs such as behavioural intentions which are present in the Theory of Reasoned Action (TRA), the adopted theoretical concept for the study. Behavioural intention suggests that behaviour is volitional and that outcomes of actions are optimum when planned and executed consciously. The TRA has a major construct "subjective norms" which places emphasis on the influence of the social environment has on behaviour which is also missing in both deontology and HBM. With all these strengths, the TRA was considered the most appropriate for the study, as it has various constructs that seeks to measure attitude, beliefs, as well as the other factors in the environment, that enables an individual to either put out a positive or negative behaviour.

2.2 Theoretical Framework

Theoretical frameworks are based on well-known theories that have been approved and used widely by numerous researchers and individuals. It also served as the study's blueprint, guiding, and directing the entire research work (Anfara & Mertz, 2015; Kivunja, 2018). Based on what the researcher seeks to find and achieve at the end of the study, a behavioural change model (the Theory of Reason Action) was chosen for the study to enable the researcher understand the factors that influence the performance of NR by the nurse or midwife. As a result, the objectives and literature review of the study were based on the constructs of the theory (Anfara & Mertz, 2015).

Furthermore, through the application of this theory, the researcher gained an understanding of what influences people intrinsically and extrinsically to change a behaviour, as well as the impact people of importance have on the behaviour of others. Additionally, this same theory served as a guide for the interview guide. The subsequent section gives an elaborate discussion on the selected behavioural change model that was used for the study.

2.2.1 The Theory of Reasoned Action

A theory, according to Kerlinger et al (2000), consists of a combination of interrelated propositions, constructs, and definitions that help to explain and predict a phenomenon. Also, it allows for a systematic view of a phenomenon, allowing for the study and assessment of the relationships among constructs of specific phenomenon (attitude and behaviour towards NR) under study. Again, theories are developed from well-thought-out scientific and empirical studies, using both inductive and deductive approaches to conclude on the actual relationship that exists among variables and the connections between them (Kerlinger et al., 2000; Kivunja, 2018).

As a result, during a study, "theories" enable researchers to name what they observe, explain, and comprehend various phenomena to human comprehension and understanding. In a nutshell, a well-defined theory should be testable by other researchers, be logical, coherent, and clear, and have defined variables and constructs (Kivunja, 2018; Stockton, 1974). Hence, the theory of reasoned action was chosen to enable the researcher to understand the actions and behaviours of nurses and midwives toward NR at the clinical site and also serve as the fundamental guide for the entire study (Fishbein & Ajzen, 2011; Stockton, 1974).

The theory of reasoned action (TRA) was propounded by Martin Fishbein and Icek Ajzen in the 1960s. It was derived from a previous study which started as the theory of attitude, leading to the study of attitude and behaviour (Dillard&Pfau, 2002). "The theory of reasoned

action was developed mainly out of frustration with traditional attitude-behaviour research, much of which found weak correlations between attitude measures and performance of volitional behaviours" (Dillard&Pfau, 2002). The major constructs of the theory are attitudes, subjective norms, and behavioural intentions (Ajzen, 1991, 2014; Nisson & Earl, 2020).

Attitudes are the sum of beliefs that people have about a specific behaviour, weighted by an evaluation of these beliefs (Miller, 2005). Attitude towards behaviour is also defined as an individual's positive or negative feelings about performing behaviour (Ajzen, 2014). It is determined through an assessment of one's beliefs regarding the consequences arising from behaviour and an evaluation of the desirability of these consequences.

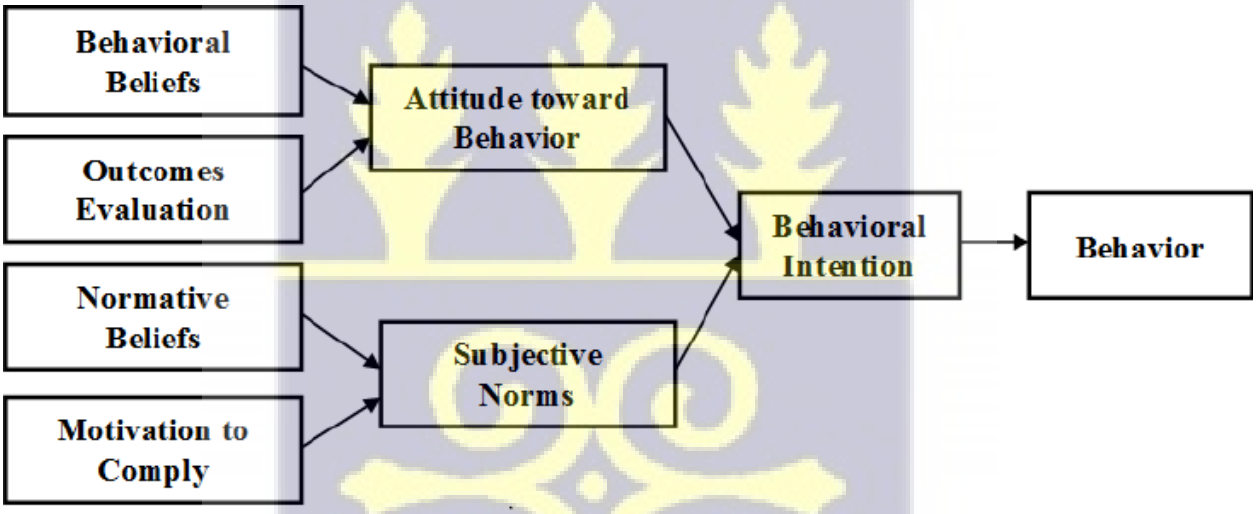
Subjective norms focus on the influence of people in an individual's social environment on his/her behavioural intention (Morris et al., 2012). Thus, the beliefs of people, weighted by the importance one attributes to each of their opinions, will influence his/her behavioural intentions.

Behavioural intention serves both as a function of attitude towards behaviour (whether engaging in the behaviour is regarded as positive or negative) and the effect of subjective norms on actions (example beliefs about whether others think one should engage in a behaviour). Both of which have been found to predict actual behaviour (Kortteisto et al., 2010; Nisson & Earl, 2020). In other words, intention is seen as a motivational factor within the theory; as it entails how one (a nurse or midwife) plans to execute behaviour (performing NR) (Nisson & Earl, 2020).

Behaviour is the actual performance of the action. The theory states that behaviour is under volitional control, hence, good attitude coupled with favourable social environment, whereas bad attitudes and lack of good influence within the environment can also affect behaviour negatively (Dillard & Pfau, 2002; Nisson & Earl, 2020).

The theory of reasoned action has been criticized for several reasons. The theory is limited in its significant risk of confounding between attitudes and norms, since attitudes can often be reframed as norms and vice versa (Dillard & Pfau, 2002). Besides, the assumption of the theory of reasoned action, that when someone forms an intention to act, they will be free to act without limitation is flawed (Morris et al., 2012). In practice, however, constraints such as limited time, ability, organizational or environmental limits and unconscious habits do limit the individual's freedom to act. Below is a diagram (Fig 2.1) showing the constructs of TRA.

Figure 2.1: a diagram showing the various constructs of the Theory of Reasoned Action.



2.3 Application and Justification for the TRA

The nurse or midwife as an individual has attitudes (beliefs) towards their day-to-day practice as healthcare professionals. In context to this study, the nurse or midwife should have beliefs towards a specific behaviour (thus, performance of NR). Such beliefs are therefore likely to generate a positive or negative feelings when there is the need to action (NR). In this study, therefore, the attitude (beliefs) of nurses and midwives were explored, to help understand how their positive or negative feelings impacts on their performance (behaviour) towards NR.

Again, an individual's social environment according to TRA, tends to influence their beliefs and actions towards a specific activity. As nurses and midwives work within a social environment, among a multidisciplinary team and patient relations, their behaviour towards the performance of NR is likely influenced by others. Therefore, the TRA was employed to investigate the extent to which opinion and actions (subjective norms) of others within the social environment of the nurse or midwife effect their behavioural intentions in performing NR.

A persons' actual behaviour towards an action, can be seen as positive or negative in relation to the performance of that specific activity. Again, such actions are influenced by the individual's personal beliefs and that of others within their social environment (subjective norms). It is about how a nurse or midwife strategizes to perform behaviour (performing NR). Therefore, to understand the actual behaviour of the nurse or midwife, in this context, in the performance of NR, TRA helped in explaining such behaviour (behavioural intentions) which is driven by motivational factors, i.e., either positively or negatively motivated or as an influence within the social environment (others).

Furthermore, the nurse or midwife's actions (the actual performance of NR), according to TRA, should be influenced by good personal attitude within a constructive social

environment (subjective norms, i.e., beliefs and actions of others), which impacts on good intentions towards an action (performance of NR) or vice versa. This was explored in detailed in the study.

Despite its criticisms (see above), the theory of reasoned action was considered relevant to this study, and thus adopted as the theoretical framework, as it awakens the realisation that the way nurses and midwives perceive new-born resuscitation ultimately influences their intentions, and subsequently their behaviour towards the procedure and management of the new-born with breathing difficulties (Mulupi et al., 2013). TRA, on the other hand, was chosen for the study because it clearly describes how the views of significant others can influence people's perceptions. This is because the nurse or midwife works in an environment where the exchange of ideas and skills has a significant impact on practice. As a result, there was a need for a model that assesses the impact of others' decisions and behaviours, as well as the implications these factors have on NR performance, making TRA the ideal fit for the study.

In summary, the application of TRA was in juxtaposition with the key findings of the study. Specifically, the theory was used to explain how the practice of new-born resuscitation among nurses and midwives was influenced by their attitude, beliefs, and perceptions (subjective norms) and behavioural intentions.

2.4 Literature Review

To identify the literature relevant to this study, a search was conducted in PubMed, Science Direct, Scopus, Hinari, and Ebscohost and using the Google search engine to identify grey literature as well. The search covered the period 1950-2021. However, literatures that date back in the 1950 were considered relevant to the study because some of the theories considered for the research work originated in the 1950s and 1970s. Also, the following keywords were used in the literature search: "neonatal resuscitation" OR "new-born resuscitation", "Health professionals' attitude towards new-born resuscitation" OR "Attitude of health providers towards new-born resuscitation" OR "Attitude of nurse and midwives towards new-born resuscitation". Others were "behaviour intentions nurses and midwives" "Behaviour of nurses and midwives towards new-born resuscitation" "Practice of new born resuscitation by nurses and midwives" OR "new born resuscitation by nurses" "Practice of new born resuscitation by midwives" or "new born resuscitation by nurses and midwives" "Practice of new born resuscitation by health professionals", "factors influencing new born resuscitation by nurses and midwives", "predictors of new born resuscitation by nurses and midwives". The research was limited to human studies published in the English language. The literature review was organised based on new born resuscitation and the specific objectives of the study which are the attitude of nurses and midwives toward new born resuscitation, beliefs and perceptions (subjective norms) of nurses and midwives towards new-born resuscitation, the practice of new born resuscitation among nurses and midwives, behavioural intention on the practice of new born resuscitation among nurses and midwives and the actual behaviour of nurses and midwives towards new-born resuscitation.

2.4.1 Overview of New-born Resuscitation

New-born Resuscitation (NR) is an emergency intervention at the time of birth to support the airway, breathing, the establishment of smooth, adequate breathing and circulation of the

new-born who has birth asphyxia and other breathing distress (Muneer et al., 2019). Effective NR is possible with the availability of basic equipment and skills in low-resource settings (Hole et al., 2012). The major cause of early new-born death is birth asphyxia, which can be prevented by effective NR (Muneer et al., 2019). However, NR, if performed in a timely and effective manner, drastically reduces deaths, neurological damage, and subsequent disabilities in the new-born who fails to initiate and sustain breathing at birth (Pammi et al., 2016). It is worth acknowledging, however, that the resuscitation of a new-born is more challenging and complicated than that of an adult or even older infant (Bellieni & Buonocore, 2014).

The primary steps taken by nurses and midwives in the resuscitation of new-borns are very vital in the neonatal outcomes, and these include only the practices of suction to take a breath, drying, stimulating, keeping them warm, airway examination and assessment of breathing (Braga et al., 2015; Muneer et al., 2019). Therefore, a delay in the initiation and improper resuscitation technique by health professionals (nurses and midwives), has been found to be a leading cause of millions of new-born deaths, with almost 99 per cent of these deaths occurring in developing countries (Muneer et al., 2019). Subsequently, these occurrences have been attributed to inadequate training and the non-availability of needed equipment in some health facilities, mainly in sub-Saharan Africa (Coffey et al., 2012; Noor et al., 2014; World Health Organization, 2014).

2.4.2 Attitude of Nurses and Midwives towards New-born Resuscitation

New-born resuscitation by health professionals (nurses and midwives) has the potential to save lives and prevent morbidity among the new-borns. However, staff attitude can be a challenge in the performance of NR, to help with their vital involvement for survival of new-borns needing respiratory or cardiac support. These attitudes with it influencing factors could be positive or negative with its relation impact on NR.

The attitude of health professionals (nurses and midwives) towards NR is dependent on their

adequate knowledge on new-born resuscitation. However, the knowledge of midwives in many health facilities, in context of Ghana, has been found to be inadequate in relation to NR (Alhassan et al., 2019). Therefore, adversely influencing on staff participation and commitment to take responsibility and liability, leading to staff averting their contribution in NR. Additionally, the social and professional experiences of nurses and midwives have influence on their attitudes towards NR. Also, their fears and opinions regarding the value of life have tremendous effect on their attitude which directly and indirectly affects their behaviour towards NR (Bellieni & Buonocore, 2009). Therefore, the prevention and identification for the need for resuscitation, and the skilful resuscitation of the asphyxiated new-born, depends on the knowledge and experience of practice by the nurses and midwives, to generate a positive or negative attitude towards the procedure (Ezenduka et al., 2016). The attitude of health professionals influences their choice of action and the appropriate responses to challenges that may surface after the delivery of the new-born (Ezenduka et al., 2016; Jaffré & Lange, 2021)

Positive attitudes of midwives and nurses during an emergency as in the case of asphyxiation of a neonate helps in successful nursing practice and action (Ezenduka et al., 2016). Health professionals with better attitudes are most likely to have higher self-confidence to perform resuscitation on new-borns (Clary-Murinda & Pope, 2016; Clary-Muronda, 2018). The positive attitude of the skilled birth attendant (SBA) toward resuscitation and the availability of necessary equipment, correlates with their level of confidence (Kim et al., 2013). The availability of vital equipment and supplies required for neonatal resuscitation, in health facilities, is found to positively influence the health professionals' ability to perform neonatal resuscitation. Health care givers, working in health facilities which are more equipped with the needed infrastructure, human resource, and the amenities needed to perform new-born resuscitation, have been found to be more confident and astute during situations that needs

prompt care for the survival of a baby with breathing difficulty (World Health Organization, 2014).

Long years of service by skilled birth attendants have been found to increase the confidence level of these individuals, ensuring a positive attitude when it comes to giving prompt and emergency care to critically ill new-borns. Research indicates that such individuals have good judgement levels and traits and could predict emergency situations and perform new-born resuscitation with high level of certainty compared to their counterparts with lesser number of years at the new-born critical care unit, who may be less confident to the process (Mclean et al., 2016). However, a study by Chinbua et al (2020) showed nurses and midwives with long years of service had challenges with adapting to the processes involved in performing NR, according the Helping Baby Breathe (HBB) protocols as compared to the more youthful nurses and midwives with fewer years of experience.

Again, another study has indicated, that family presence during neonatal resuscitation intensifies the confidence level of the health workers, creating a positive attitude, which helps in giving the best of care to the baby with breathing difficulty (Mclean et al., 2016). A study by Agbenohevi (2018) identified some negative attitudes of midwives towards NR, including a delay in time to commence resuscitation of new-borns, use of inadequate methods of resuscitation, and lack of adequate assessment before reviving new-borns. A negative attitude towards the practice of new-born resuscitation by nurses and midwives, is however dangerous, as this can continue to contribute to the occurrence of birth asphyxia and its related problems (Kassab et al., 2014; Khriesat et al., 2017). Challenges staff faces in their work environment, if not talked about, may cause staff to consider dejected, hence leading to negative attitudes towards NR.

Zagd et al. (2013) reported, that most SBAs' attitude towards reluctance to either initiate or withdrawal from new-born resuscitation, can be influenced by the state or condition of the

new-born (i.e., prematurity or a baby born with some form of birth defect). These decisions are mostly influenced by the religious or the cultural believes of the nurse or midwife, as well as the fear of the new-born growing up with some form of complications (Abdel Razeq et al., 2020; Clifford & Hunt, 2010; Khriesat et al., 2017; Lewis, 2017; Nyiringango, 2019; Warrick et al., 2011; Wiener et al., 2013). Furthermore, increased exposure to new-born suffering, mortality, and expectation of poor outcomes, may make health professionals reluctant to perform aggressive resuscitation on a new-born, in cases they view as futile (Lavin et al., 2017). Some health workers may prefer not to perform resuscitation on infants born extremely premature [22weeks]. Some nurses and midwives perceive the new-born age (in weeks) as another crucial threshold in determining whether to perform resuscitation and this also plays an essential role in determining their confidence level as well as their performance. As a result, relative majority will prefer to perform resuscitation on new-borns of 28 and 30 weeks old and beyond (Mcadams et al., 2013). Consequently, the attitude towards NR reflects a nurse/midwife's positive or negative assessment of performing the procedure (Agbenohevi, 2018).

In summary, attitude towards an action is an individual's overall evaluation of the consequences of the behaviour to the performer. Positive attitude by the nurse or midwife improves on the overall performance of NR and the quality of care given to the new-born with breathing difficulties. Various factors such as knowledge, years of experience and compassion for the new-born, were shown to have positive influence on NR, whereas the condition of the new-born, gestational age, lack of the needed logistics and amenities were identified as some precursors that can lead to negative attitudes towards the performance of NR by the nurse or midwife. Again, it was identified that culture and religion had influence on the attitude of the nurse or midwife towards NR. The next section, however, will give a review into how beliefs and perceptions (subjective norms) affect the performance of NR among nurses and midwives.

2.4.3 Beliefs and Perceptions (Subjective Norms) about the Performance of New-born Resuscitation

According to the Theory of Reasoned Action (TRA), subjective norms form the basics on the beliefs and perceptions that an individual skilled birth attendant (SBA) will approve or disapprove of performing a specific task (resuscitation) (Dillard & Pfau, 2002; Fishbein & Ajzen, 2011; Yami, 2015). The theory, on the other hand, explains the impact the social environment has on people's normative beliefs and perceptions towards behaviour. The influence of relations (family, friends, and colleagues) on people's decisions and actions is normative beliefs. Hence, the approval or disapproval of social contacts toward the performance of a specific task has been found to influence behaviour, with some schools of thought indicating a stronger correlation between normative beliefs and behaviour (Nisson & Earl, 2020). As a result, these tend to shape people's perceptions of specific actions and behaviours.

Similarly, several studies have showed the impact senior colleagues, colleagues, and other SBAs within the nurse or midwife's immediate environment have on the performance of the NR. These findings revealed that nurses and midwives learned their NR skills on the job and had more commitment to these practices and skills, than what they learned formally in schools, workshops, and other NR training programs (Khriesat et al., 2017; Shikuku et al., 2018). As a result, even though these actions of harmful practices such as turning the baby upside down, using methylated spirit, rubbing the chest of the hard as well as slapping the back of the new-born, are against the standard protocols on NR, they are still prevalent in most birth settings in low-middle income countries (Kassab et al., 2014; Khriesat et al., 2017; Shikuku et al., 2017)

These goes to explain the influence the social environment has on practice. Poor practice of NR has been a major challenge for most developing countries including Ghana, with most

nurses and midwives not seeing the wrong in their practise (Ezenduka PO et al., 2016; Kinney et al., 2010). Most studies have showed training and refresher courses on NR impact knowledge and skill retention. However, this expertise vanishes over time due to lack of efforts by both individuals and the facility's management to find ways of preserving the knowledge and skills learnt (Olaniyi & Ncama, 2020; Shikuku et al., 2017, 2018). According to Clifford & Hunt (2010), acquired knowledge by health professionals through in-service training and mentorship, influences the belief and perception to perform effective new-born resuscitation. Also, a study by Nyiringango (2019) explained the positive impact health workers mentors at the workplace had on the perception of nurses and midwives on NR. Furthermore, other SBAs believe that lack of supervision serves as a hindrance to using the guidelines on the performance of resuscitation the right way according to laid down protocols (Chinbuah et al., 2020; Root et al., 2019).

Furthermore, Ezenduka et al. (2016) goes on to explain that training of nurses and midwives to specialise in paediatrics, can improve practice, as their study revealed that specialist paediatric nurses had good knowledge and practise on NR compared to their counterpart general nurses and midwives. Indicating the impact specialization in nursing has on practise and skill acquisition. Furthermore, another component observed to have tremendous impact on performance within the social environment of the nurse or midwife was collaborative or teamwork during NR. Team resuscitation has been shown to be a good way of promoting positive practice of NR. The more individuals work together, the higher the chances of learning from each other and correcting each other's errors, which in turn promotes good practice among colleagues. Additionally, teamwork and good communication has been proved to promote confidence among nurses and midwives during the performance of NR (Ljungblad et al., 2020).

Many health professionals (nurses and midwives) perceive as complex, the nature of the

procedural guideline of resuscitation and the additional time required for the application of these in actual practice can be tedious and exhausting (Sami et al., 2017). Hence, they tend to the easy ways of resuscitating the asphyxiated new-born, which are mostly not the approved way and deviates from standard practice. Research has shown that nurses and midwives' readiness to perform NR is influenced by their perception of the ease or difficulty of performing NR during the immediate postnatal period (Nyiringango, 2019; Sami et al., 2017). The implication is that when the beliefs and perceptions of nurses and midwives regarding the performance of NR are highly favourable, they will have a high level of self-control over the performance of resuscitation, and their strong intentions to perform it. Some studies have suggested a more contemporary approach to training SBAs on NR within hospitals and schools. These studies indicated the need for a more practical, applicable, and easy to use method for training through the use of modern technologies, social media and software applications (Ghoman et al., 2020; Ljungblad et al., 2019).

Also, parental wishes have been found to have some influence on the SBAs perception and decision to carry out resuscitation on new-born (Linnard-Palmer & Kools, 2016; Mclean et al., 2016; Thomas, 2015). There are conflicting views about the impact family presence has on the performance of NR. Some SBAs acknowledges the presence of the family as a source of interferences and disturbances during the provision of emergency care to the new-born who needs resuscitation (Harvey & Pattison, 2013; Lewis, 2017). Other SBAs perceive the family presence during the resuscitation time as needed as it encourages and increased professional behaviour (Barreto et al., 2019; Dainty et al., 2021; Mclean et al., 2016). Similarly, health professionals (nurses and midwives) perceive the presence of the family during the resuscitation to have some influence on their intention when performing NR, these some explained as having positive impact on them (Harvey & Pattison, 2013; Schneider et al., 2019).

Furthermore, religion and culture have had an impact on NR in the clinical setting. Studies have shown that these factors have an impact on the decision of both parents and skilled birth attendants to practice NR, particularly in high-risk situations (Superdock et al., 2018). Even though there has been a significant improvement in paediatric and neonatal care in recent years due to the use of sophisticated machines and advanced technologies that aid in both management and diagnosis, faith and belief in God continue to have a significant impact on individuals' beliefs, in healing, when it comes to end-of-life care or in extreme cases such as NR of the new-born (Superdock et al., 2018). As a result, some parents prefer a delay in care or the avoidance of certain important medical procedures which at times can be detrimental to the new-born (Zimmermann et al., 2016).

In summary, the environment of the nurse or midwife has a lot of influence on their decision to carry out a procedure. The review showed various aspects such as the family have influence on the performance of NR by the nurse or midwife. Additionally, mentorship and supervision by colleagues were seen to have influenced the performance of NR, with culture and religion directly and indirectly impacting the care rendered to the asphyxiated new-born. The next section will delve into the behavioural intention of the nurse or midwife towards the performance of NR.

2.4.4 **Behavioural Intention of Nurses and Midwives towards New-Born Resuscitation**

According to Ajzen (2011), attitude toward behaviour is an individual's overall evaluation of behaviour and more favourable attitudes towards a particular behaviour increase behavioural intention. Additionally, behavioural intention is the main precursor to whether an individual will actually perform behaviour. Most of the time, these behaviours are under volitional control (under thought and process); the higher the behavioural intentions (preparations), the better the actions towards the performance of the actual behaviour. Hence, the decision making by health professional, towards new-born resuscitation depends on their positive or negative evaluations of performing the procedure (Dillard&Pfau, 2002; Nisson & Earl, 2020; Yami, 2015)

Generally, a person's intention to adopt a particular behaviour increases with the positivity in the attitude towards (evaluation of the importance of NR) the behaviour and the subjective norms (influence from the social environment of the nurse or midwife) (see above) (Ajzen, 2014; Chen et al., 2017). Additionally, Ajzen (1991) further indicated that the better an individual's attitude toward a specific behaviour is, the stronger that person's behavioural intention is to express the behaviour. This goes to explain that the better a nurse or midwife prepares or anticipate for NR, the higher the chances of them giving the best of care to the new-born that needs support with breathing. Furthermore, other factors such as professional obligation, passion, willingness and the anticipation of new-born resuscitation as an emergency, has been found to influence the preparation towards NR among nurses and midwives (Agbenohevi, 2018; Clary-Murinda & Pope, 2016).

Various studies have suggested that most nurses and midwives fail to properly monitor the expectant mother and foetus (Jaffré & Lange, 2021). There are generally poor behaviours towards early detection of the asphyxiated infant, with most of them being diagnosed when they are already facing the breathing challenges (Chinbuah et al., 2020; Murila et al., 2012).

A study by Chikuse et al., (2012) indicated that even though most skilled birth attendants (SBA) have a general knowledge of birth asphyxia, they fail to identify warning signs of birth asphyxia through patograph use. This is found by Mileder et al., (2014) as due to a lack of health professional adherence to resuscitation guidelines and protocols.

Recommended guidelines can be effected through the development of nursing intervention strategies, such as in-service training, workshops, and conferences, to help improve knowledge which, in turn, promotes improved SBAs behavioural compliance (Alhassan et al., 2019; Kassab et al., 2014; Murila et al., 2012; Reisman et al., 2016; Shikuku et al., 2018). Even though most skilled birth attendants have some form of training and education on NR. Most SBAs fail to adequately prepare for NR; these actions have been found to have serious consequences on the new-born due to delayed care. Any delay in treatment increases the likelihood of future complications ranging from mild neurological difficulties to more serious and permanent defects such as convulsions, epilepsy, and cerebral palsy (Antonucci et al., 2014; Bekele et al., 2021; James & Patel, 2014; Janet et al., 2018; Sousa & Mielke, 2015; World Health Organization, 2014). The theory of reasoned action posits that behavioural intentions are the primary stage before an individual performs behaviour, hence creating and improving positive attitudes towards NR is quite essential, as well as creating a nurturing environment that supports change, and adaptability is needed to improve positive behaviours among the nurse or midwife (Chen et al., 2017; Fishbein & Ajzen, 2011; Nisson & Earl, 2020).

In summary preparation for NR through proper assessment of the unborn baby and expectant mother is some behaviour that depicts readiness for NR performance. Good preparation helps in prompt care and limits future permanent neurological complications on the newborn (Shikuku et al., 2018; Sousa & Mielke, 2015). The next section, however, reviews the practice (behaviour) of nurses and midwives towards NR.

2.4.5 Practise (behaviour) of Nurses and Midwives towards New-Born Resuscitation

Behaviour is the way in which one acts or conducts oneself, especially towards others. The ability of the nurse or midwife to appropriately perform new-born resuscitation on a baby with breathing difficulties is essential. The timely intervention of the skilled birth attendants reduces neonatal mortality significantly and prevents the many complications associated with intrapartum complications including birth asphyxia. A non-randomised controlled trial research conducted in Eastern Kenya, revealed the need to constantly train midwives on neonatal resuscitation as essential. Regular drills and refresher courses help in maintaining the skills obtained by the midwives, and hence generate good behaviours towards the performance of the right intervention needed, to maintain and sustain the life of the baby with breathing difficulties (Opiyo et al., 2008; Opiyo & English, 2006).

A qualitative study carried out in Tanzania by Moshiro et.al, 2018 showed that most midwives acknowledge teamwork as an essential element needed in the performance of new-born resuscitation. However, the ability to draw clear roles for individuals within the team was seen as a major challenge during resuscitation, as specific roles are not outlined properly, leading to confusion among the team. This was linked to the fact that most neonatal resuscitation training is tailored towards resourced-limited regions, where mostly the procedure is performed by an individual.

The actual performance of behaviour is influenced by both the intrinsic and extrinsic factors. The confidence level, years of experience, regular training and drills, proper supervision, and mentoring, serve as some of the requisite foundation for nurses and midwives to perform new-born resuscitation accurately and precisely. Lack of required amenities, designated space for new-born resuscitation, few human resources is some of the extrinsic factors that affect new-born resuscitation. Another important area that affects the actual performance of new-born resuscitation is non-adherence of skilled birth attendants to the various New-born

Resuscitation Algorithm (example Helping Baby Breathe, HBB), used by most health facilities in low-middle resource limited settings including Ghana (Alhassan et al., 2019; Asse et al., 2016).

In Ghana, it has been showed that SBAs have some level of knowledge on new-born resuscitation, but lacked the ability to perform the skill in practice (Alhassan et al., 2019), which is so much of a worry, as the only way to achieve the SDG 3 by 2030 as a country, is to be more proactive and improve upon the quality of care given to babies in distress; hence avoid and reduce all preventable new-born deaths to a negligible rate.

2.5 Summary

This chapter reviewed the relevant theory providing a framework for the study. The Theory of Reasoned Action was the focus of the theoretical review. The TRA was chosen as the study's conceptual framework because it was relevant to the current study's goal of understanding the concepts of nurses' and midwives' attitudes, subjective norms, behavioural intentions, and behaviour of new-born resuscitation.

Again, this chapter has been used to describe how the literature search was carried out. Studies on the attitude, beliefs and perceptions (subjective norms), behavioural intentions, and behaviour practices towards the performance of NR have been reviewed. According to the literature review, nurses and midwives have positive and negative attitudes toward NR. The attitudes (either positive or negative) of nurses and midwives are influence by their knowledge, experience, and the availability of the necessary amenities and equipment for NR. Further, the new-borns' condition and gestational age, has been indicated as an influence on health care givers towards NR. Ghanaian nurses and midwives have different traditional and religious values from other nations, which might influence differently, on their perceptions about NR. The review reflected, however, that culture and religion had a minor impact on

nurses' and midwives' attitudes toward NR performance.

The staff normative beliefs and perceptions were seen to be influenced by their social environment. According to the literature review, senior colleagues, colleagues, and other SBAs behaviour as well as the family have an influence on the nurse and midwife, as a result, they prefer to practice the skills learned in the clinical field rather than what they learned formally at school or during training programs. Furthermore, teamwork, supervision, and mentorship were discovered to have impacted the beliefs and perceptions of the nurse or midwife. This reflects the complex negotiation within any environment in the performance of NR.

As much as the nurses' and midwives' attitudes, and beliefs and perceptions (subjective norms) influenced their behaviour toward NR, the decision (intention) to perform NR was seen as a factor during the review. Also, the nurse or midwife's ability to prepare and anticipate the need to perform NR was identified as a major component needed for the performance of the actual behaviour (NR). When nurses and midwives are not able to anticipate and identify new-borns who require resuscitation, it could result in delayed care in most cases which can be detrimental to the health of the new-born in future.

Again, teamwork, regular drills within the wards, training, and supervision were revealed as influencing factors to increase NR adherence to the required standard guidelines. Furthermore, previous studies on the experiences of skilled birth attendants, mostly midwives, on the performance of resuscitations, indicate the lack of skills in NR among midwives.

The reviews are intended to back up the justification for investigating the factors that influence the performance of NR among nurses and midwives in Ghana. A gap, which part of this review has tried to fill by the carrying out of the study in the Eastern Region of Ghana.

The outcome of this study should help improve an understanding of NR among nurses and midwives, and optimization of support for the nurse or midwife practicing in these units, with a higher possibility of performing NR among these staff, in the Eastern region and Ghana. These explorations are to enhance on the few studies in Ghana, in clinical practice, and structural changes, on health policy as to how best to manage and improve on NR in the survival of the new-born needing respiratory/cardio support. Again, this chapter have been used to justify the focus and provided analytical context for this thesis, in which themes have been introduced and provided a foundation for this empirical work. The review establishes broad themes, which are explored further in the thesis.

CHAPTER THREE

RESEARCH METHODOLOGY

Research methodology is both a systematic approach to problem-solving and the science of studying how research is carried out. It serves as the researcher's framework or plan for investigating or studying a phenomenon. To gain knowledge and insight into a phenomenon, the researcher uses research methodology to explain, describe, and predict their area of concern in a scientific and evidence-based manner (Polit & Beck, 2020). There are two main types of research methodology: quantitative and qualitative research. Quantitative research deals with numbers and testing of hypothesis whereas qualitative research considers understanding the experiences and perspectives of the research participants on a particular phenomenon, allowing for a deeper understanding into the situation (Creswell & Miller, 2000; Lincoln, 1995; Polit & Beck, 2020)

This study however used a qualitative research approach to enable the researcher gain in-depth knowledge and understanding of the factors that affect new-born resuscitation practices among nurses and midwives. Qualitative research necessitates face-to-face interaction between both the researcher and the study participants, allows for data collection in a natural setting, and the entire data collection process is detailed and holistic in nature. During the collection of data, it considers other non-verbal cues such as the tone of voice and body language, allowing access to a more meaningful data (Lincoln & Guba, 1986; Mohajan, 2018; Rahman, 2017). Therefore, this methodology was chosen because the researcher wanted to under study the various issues that pertains to the practice of NR in the clinical field in a more naturalistic way, making qualitative study the most appropriate method for the study. This chapter, therefore, was used to discuss the entire research process, which includes a description of the research design, study setting, and study population. Also, the sampling techniques, sample size determination and participant recruitment, data collection,

and data analysis have been described. In addition, a narrative of methodological rigor and ethical considerations were highlighted.

3.1 Research Design

The study design used for the research was a qualitative descriptive study. The qualitative descriptive (QD) design is a qualitative approach that enables one to gain an insight into a phenomenon (performance of new-born resuscitation) from the perspective of the study participants (Sandelowski, 2010). QD has become one of the most useful qualitative designs in medical research, despite being relatively new in comparison to other qualitative study designs. Its primary focus is the collection of data about people's lived experiences (Neergaard et al., 2009; Willis et al., 2016). It is also eclectic in nature, borrowing concepts and ideologies from other qualitative designs such as ethnography and phenomenology (Kim et al., 2017; Willis et al., 2016).

According to Sandelowski (2010), qualitative descriptive design is appropriate for health research because it provides factual answers to questions such as "how people feel about a particular space," "what reasons they have for using features within a specific space or area", "who is using particular services or functions of a space, and the factors that facilitate or hinder use." As a result of the design principles, the researcher was able to gain a deeper understanding of the participants' day-to-day activities regarding specific events, individual responses, and behaviour towards NR, as well as how the nurse or midwife manage such specific occurrences; as well as the strengths, weaknesses, and barriers associated with their clinical practice of NR (Hunter et al., 2019; Willis et al., 2016).

Furthermore, QD design, like other qualitative ones such as ethnography and phenomenology, draws on general tenets of naturalistic inquiry. As a result, the study was conducted with no manipulation or pre-selection of study participants prior to the actual study, allowing participants to be studied in their natural state, as they would have been if

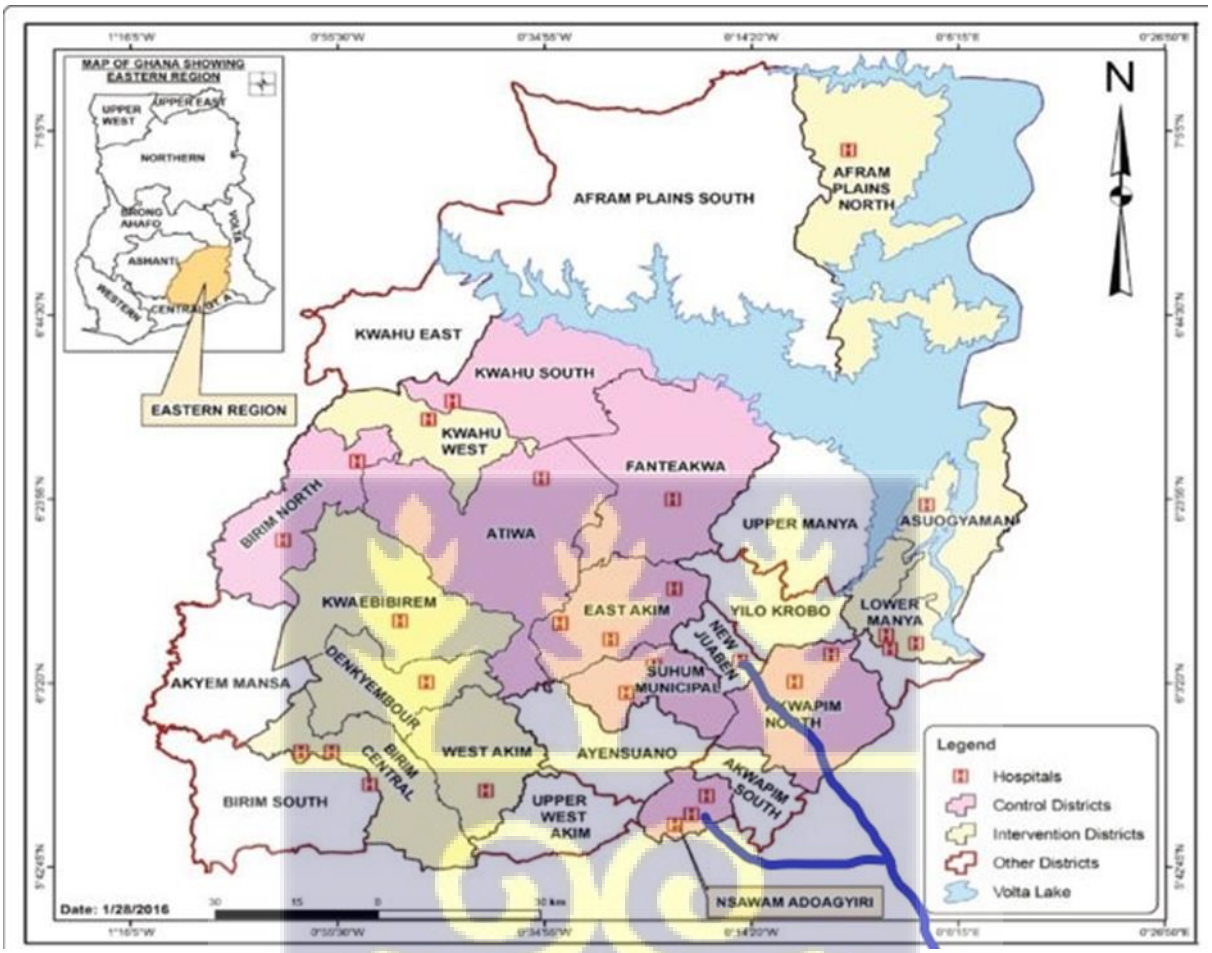
there had been no study (Lincoln & Guba, 1986; Sandelowski, 2000, 2010). In addition, the interpretation of findings in a descriptive design is done in an easily understood language, making it suitable for studies with limited time and resources, such as the current study, where time and resources were insufficient (Kim et al., 2017). Additionally, the use of QD allowed the study's goal to be met while serving as the primary guide and language for the entire study

Nonetheless, QD design enabled the researcher to gain insight into the study through an accurate description of the participants' perspectives on NR, which was done in a logical sequence to explain the views shared by the nurses and midwives. Subsequently, allowing the generation of concrete findings for the study, connecting the ideas and experiences shared while analysing the data in words close to the participants' voices (Neergaard et al., 2009). QD, like any other research design, has limitations and has been criticized by most people for being too simple and lacking in rigor. However, it is the best choice when a study requires straight descriptions of data (Neergaard et al., 2009; Sandelowski, 2010). To account for this limitation, a detailed description of the various stages of the study (see subsequent sections) was provided, with justification, to ensure clarity and credibility throughout the research process (Kim et al., 2017).

This section described the research design used and the reason for its selection. The next section however gives a vivid description on the research setting.

3.2 Research Setting

Figure 3.1 Map of the Eastern Region of Ghana showing the two Municipalities where the study was carried out (in matte colour).



Source:https://www.researchgate.net/profile/Kerstin-Klipstein-Grobusch/publication/315795654/figure/fig1/AS:479992699199488@1491450585162/Map-of-districts-in-the-Eastern-Region-of-Ghana-The-districts-were-defined-as-cluster_W640.jpg

Research setting deals with the selection of the appropriate environment needed to get people that have knowledge and experience about the phenomenon under study. The researcher used two hospitals in the Eastern Region: The Eastern Regional Hospital and the Nsawam Government (District) Hospital. The Eastern region has 26 districts of which Koforidua is the capital. Koforidua Municipal is the smallest, but most densely populated in the region. The square kilometre is about 1428 and covers a land area of 110.0 square with a projected population of 191,525 as at 2013.

The Eastern Regional Hospital (ERHK) is the region's largest hospital. It was founded in 1926 and serves as a secondary-level referral facility for the entire Eastern Region. It is also the Municipal Hospital for the New-Juabeng Municipal Assembly, which has a population of over 180, 000 people. The hospital has a 356-bed state and offers the following services: Obstetrics and Gyneacology, Internal Medicine including anti - retroviral Therapy, Paediatrics, Surgery, Dental, Ophthalmology, Physiotherapy, Ear, Nose and Throat, Laundry, Herbal, Psychiatry, Nutrition Mortuary and Primary Healthcare Service. It is a Ghana Health Service Facility which is a not-for-profit healthcare organization. Which strive to satisfy numerous customers, both patients and visitors. In 2003, the hospital was thus adjudged as the Best Regional Hospital in Ghana. It is the centre of maternal and child health care in the Region.

The Nsawam Government Hospital, founded in 1928, is a well-known district hospital in Ghana's Eastern Region. The hospital is in Nsawam, the capital of the Nsawam-Adoagyiri Municipality. The Municipality before its separation into two (2) in September 2012 was called Akwapim South Municipality. The Municipal capital is along the main highway linking the coastal lands to the Northern part of the country that is the Accra-Kumasi Road. It serves Four (4) sub-Municipals namely, Adoagyiri, Djankrom, Nsawam and Panpanso with about 120 communities, with current projected population of about 107,302.

The Municipal Hospital plays a crucial role in the entire Municipal health system among which includes providing first level hospital care for the residents of the Municipality and beyond. A primary place of referral from referral clinics and/or community health centres, private health facilities, and responsible for referring patients to higher levels of care, when necessary. The hospital also provides support to health workers in clinics and community services, both in terms of clinical care and public health expertise.

The hospital currently has a bed capacity of 161, of which Maternity/Gynaecology ward has 50 beds, Paediatric ward with 28 beds and NICU with 11 cots. In total, the hospital has five main wards for in-patient admissions with an Accident & Emergency ward. In addition, the hospital has the following departments: the OPD, Pharmacy, Radiology, Laboratory, Theatre, Antenatal, Public Health Unit, General Administration, Nursing Administration, Accounts, Procurement and Supply, Clinical Engineering and Estates, Laundry, Mortuary and the Environmental unit. The total staff strength of the hospital is estimated to be 468, including 19 Doctors, 388 Nurses and midwives of various grades and professional designations.

The hospital won the prestigious 2nd Best Managed District Hospital Award in 2003. It is the first hospital in the Eastern region to receive the enviable "baby friendly" award. the facility provide care to expecting mothers and new-borns. They have one of the most active and vibrant maternal and new-born units in the Region, attending to over a thousand sick new-borns each year.

The researcher selected these two major hospitals located within the region to enable the study to get a fair idea on the many factors that affects the performance of new-born resuscitation among nurses and midwives in the region. The facilities mentioned above were chosen because they have the highest number of new-born admissions into their NICUs, particularly for neonates with intrapartum-related conditions such as birth asphyxia. Similarly, they have many medical and nursing specialists who are well-versed in the care of both pregnant women and new-borns, so the researcher had access to staff who had

experience with NR and performed it regularly and was therefore appropriate for this study to be undertaken in these two hospitals. Furthermore, both facilities were close and easily accessible to the researcher.

3.3 Target Population

The target population were nurses and midwives working at the NICU and labour wards at the Regional Hospital in Koforidua and Nsawam Government Hospital.

3.4 Inclusion Criteria

Inclusion criteria are the specific characteristics that a person must possess to be considered for a particular study (Whitehead & Lopez, 2013). The selection of appropriate study participants is critical in qualitative research because the emphasis is usually not on the number of people but on obtaining in-depth rich data from participants.

For the above reasons, the researcher recruited only the following individuals for the study:

- Nurses and midwives who have practiced for over a year.
- Paediatric and neonatal nurses working at the labour ward or NICU
- Nurses and midwives working within the birth setting of the Eastern Regional Hospital and the Nsawam Government Hospital (i.e., labour ward and NICU).

3.5 Exclusion Criteria

Exclusion criteria identify characteristics that deemed an individual not fit for a study (Whitehead & Lopez, 2013). For that reason, the following people were excluded from the study.

- All nurses who qualify but were critically ill or on leave
- All rotational, student and newly posted permanent staff (nurses and midwives)
- Midwives and paediatric nurses who worked outside the labour ward and NICU
- All auxiliary nurses' example Enrolled nurses at the NICU and Labour ward

3.6 Sampling Technique

The process of selecting research participants to represent the entire population is known as sampling. The emphasis in this methodology is primarily on selecting individuals with lived experiences (performing NR), who will assist the researcher in gaining a comprehensive and detailed understanding of the phenomenon under investigation. Furthermore, unlike quantitative studies, this methodology prioritizes data-rich information over the number of people to be considered (Polit & Beck, 2020).

Participants in this study were chosen using purposive sampling. Purposive sampling is a nonprobability research sampling technique that relies on specific characteristics that best describe the study's research participants (Dovilie, 2010; Sharma, 2017). Purposive sampling was the appropriate sampling technique for this study, as only nurses and midwives who worked in the labour wards and NICUs were included in the study (Kim et al., 2017). These people were chosen because they are the only group of nurses and midwives at the clinical sites who perform NR and thus have knowledge and experience with the procedure. In addition, criterion sampling was used to recruit participants. Criterion sampling is a subset of purposive sampling. According to Polit and Becks (2020), criterion sampling is the selection of individuals who meet certain pre-determined characteristics of importance to a study (see above). Thus, the researcher strategically selected nurses and midwives who met the inclusion and exclusion criteria as explained under sections 3.4 and 3.5 respectively.

This enabled the collection of rich data containing diverse points of view and perspectives on the factors that influence NR practice in the clinical setting. Furthermore, the Helping Baby Breathe (HBB) and other NR training programs only admitted midwives and professional nurses, so the researcher only recruited these individuals for her study (Chinbuah et al., 2020). This section gave a description on the characteristics the researcher used to identify potential participants. The next section outlined a description on how participants were recruited.

3.7 Recruitment of Participants

The researcher arrived at the hospital with an introductory letter which contained a summary of the research topic and some information on the study from the University of Ghana, Legon, School of Nursing and Midwifery which was signed by the supervisor (see Appendix E and F). The letter was sent to the hospital administration of both facilities respectively. The researcher was then asked to come back after a week, which was duly obliged. After the letter was approved by the hospital administration, the researcher was then granted access to the hospital and introduced to the ward in-charges of the NICUs and labour wards respectively. It was an opportunity to familiarise with the ward in-charges and the environment. The purpose of the visit, as well as an introduction and a brief description of the research, was then explained to the ward in-charges. The researcher then informed the ward in-charges about the possible data collection after ethical clearance from Ghana Health Service Ethics Review Board.

Following approval from the Ghana Health Service Ethics Review Board in Accra, the researcher re-visited the facilities. The ethical clearance letter was officially sent to the hospitals' administration. The hospital management then granted the needed permission and entry into their facilities to take the required data from their nurses and midwives. The signed ethical clearance sheets were given to the researcher and copies were sent to the ward in-charges (see appendix E and F). At the Koforidua Regional Hospital, a copy was given to the block in charge, after which she allowed the researcher access to the NICU and labour wards. The above was done because, unlike the Nsawam Government Hospital, the entire Obstetrics and Gynaecology Department at the Regional Hospital has a block in charge before each unit also has an in-charge.

Subsequently, a verbal interaction was done with the ward in-charges concerning the recruitment of their staff and the possible face-to-face interviews. The researcher interacted

with a couple of nurses and midwives, giving them a brief overview of the entire study and its purpose. The information sheet was given to the nurses and midwives who met the inclusion criteria and after that their phone numbers were collected to enable the researcher to communicate with them. Potential participants were given the opportunity of selecting the day/date, time, and location for the interview. This was done at their discretion and choice. These same procedures were followed for both facilities. The information sheet was distributed to about 18 participants, however, one participant refused to take part in the study on the basis that she was only going to take part in the study if there was not going to be audio recording of proceedings. The recruitment phase at each facility took two days.

The study participants however consisted of only female nurses and midwives. The socio-cultural context of people within the country regards maternal and child health to be something more accustomed to women than the males. Hence, majority of individuals that work within such settings predominantly are females. Furthermore, female nurses outnumber male nurses in the country with similar trend in the midwifery (only females) leading to more discrepancies within the numbers (Appiah et al., 2021; Boafo et al., 2016; MOH, 2016). According to a report in 2017 by the Ghana Health Service there was no male midwife in the country (MOH, 2016).

Additionally, the socio-cultural context of women being more acceptable in the care of women and children, could be a factor to the imbalance between the two genders within the maternal and child health as opposed to other areas within the nursing fraternity. However different cadre of nursing and midwifery professionals were selected as participants (see Appendix H). This allowed for the study to establish the different factors that influence NR in a mixed pool, allowing for a deeper understanding on the various things that impact care and practice at the clinical field. This section explained the processes that were used in recruiting participants for the study. The next segment, however, discusses the sample size and number

of participants that were recruited for the study.

3.8 Sample Size

In qualitative studies, sample size is less concerned with the number of people involved in the study and more concerned with the researcher's ability to collect rich data from participants relevant to the area under study (Whitehead & Lopez, 2013). As a result, the study's sample size was seventeen (17), with nine (9) and eight (8) participants from the Nsawam Government Hospital and the Regional Hospital, Koforidua, respectively. All the study participants were selected based on the study's inclusion criteria (see above), their willingness, availability, and consent to participate in the study. Furthermore, due to the depth and duration of the interview, the richness of the data obtained, and the complexity of the analysis involved in qualitative research, a sample size of 17 was deemed adequate for the study.

3.9 Tool for Data Collection

Unlike quantitative studies, qualitative studies allow for a more flexible approach to data collection. However, the researcher remains the most important tool during data collection and is heavily involved in all stages of data gathering (Polit & Beck, 2020). Under this methodology, data can be collected through a variety of methods, including interviews, observations, journaling, open-ended questionnaires, and searching through archives or stored data on the internet (Whitehead & Lopez, 2013). In most qualitative studies, interviews are regarded as one of the most frequently used tools for gathering information from participants. It entails an on-going interaction between the researcher and the participants. Data is gathered through a narrative or conversation between them by either in-depth interviews with a single person or focus-group interviews with a group of homogeneous people. However, interviews can be conducted in a variety of ways. There are three main types of interviewing methods: structured, semi-structured, and unstructured (Lincoln & Guba, 1986; Polit & Beck, 2020).

The structured interview involves the researcher interviewing while being guided by a set of questions, where the host rarely deviates from the interview and its questions are only based on what is written within the guide, whereas the semi-structured interview is more flexible, despite the interviewer preparing an interview guide for the interaction. The interviewer has the authority to diverge from the questions in the interview guide as needed and is permitted to ask follow-up and probing questions to enable them (interviewer) gain a thorough understanding of the topic under consideration. The unstructured interview, on the other hand, is more casual and conversational (Whitehead & Lopez, 2013).

In this study, information was solicited from participants using semi-structured, open-ended interview guide. Semi-structured interviews were chosen because they allowed both participants and the researcher to have an in-depth conversation about the phenomenon under study. Unlike structured interviews, which limit the conversation to only what is written, semi-structured interview allows for flexibility and further clarification with follow-up on answers given by the interviewee (Whitehead & Lopez, 2013). Furthermore, an interview guide was created based on the research objectives, information gleaned from the literature search and reviews, and information sorted from the various protocols on NR. This was done to assist the researcher in determining answers to the research objectives and questions. In qualitative descriptive studies, interviews and observation are also the most appropriate tools for gathering information (Neegard, 2009; Willis et al., 2016). The interview guide was also approved by the supervisor to ensure the tool's credibility.

The interview guide was divided into two main sections; section "A" collected demographic data from participants and section "B" asked open ended questions on the knowledge, practice, attitude, subjective norms and behavioural intentions of nurses and midwives on new-born resuscitation practice. Also, an audio-recorder was used as the recording device to

collect data, with a recorder on the researcher's mobile phone serving as a backup to the primary recording device. Before the interview, the audio-recorder was tested to ensure it was operational. Similarly, before beginning the main interview, the mobile phone recorder function was tested. These recording devices were used because they allow for the re-playing of voice notes during transcription, which is a critical component in data analyses in qualitative studies, as discussed in section 3.12.

3.10 Piloting of the Interview Guide

In qualitative studies, piloting or pre-testing is critical and crucial (Polit & Beck, 2020). It enables one to put the interviewing guide to the test to fully comprehend the phenomenon under investigation (Kim, 2016). The intentions of piloting the interview guide was to obtain a response, to make out any uncertainties and complicated questions, as well as help with preparation (Kim, 2016; van Teijlingen & Hundley, 2002). Analytically, the pilot interviews were also done to offer an insight into the normative values and assumptions nurses and midwives working in NICU and maternity wards, associated with NR for new-borns. The preliminary interviews were also to assess the study topic guide for its credibility, trustworthiness, as well as creating the chance for making needed adaptations to the topic guide prior to the actual interviews.

The Atua Government Hospital in the Yilo-Krobo district was chosen as the piloting site because it also has a vibrant maternity wing for managing all types of maternal and new-born issues. Additionally, it was close and accessible to the researcher. The pilot study included two participants: a paediatric nurse and a midwife. It allowed the researcher to make some few changes and omissions to the interview guide. Furthermore, before conducting the main study, the pilot study was used to practice and improve the interviewing skills of the interviewer (researcher). To ensure fairness within the research project, data from the pilot study were not added to the findings of the actual research (van Teijlingen & Hundley, 2002).

3.11 Data Collection Procedure

Collection of data entails the means within which the researcher obtained data from participants (Polit & Beck, 2020; Whitehead & Lopez, 2013). Data collection in qualitative studies is a bit fluid and allows the researcher to make some adjustments during the process (Polit & Beck, 2020). As described in section 3.6 above, the tool of choice for the study was a semi-structured interview. Participants were individuals who agreed to partake in the study after reading the information sheet and willingly agreeing to be part of the study. The place, time, and day for the interview were chosen by participants alone. Also, the location for the interviews was within the hospital premises because it was the preferred choice for the participants. A small office located within the wards was used in both facilities. This was chosen because it was the most accessible and preferred choice for most participants. The researcher ensured the office was quiet and void of any interferences that may interrupt the face-to-face interview (Barrett & Twycross, 2018).

In addition, all covid-19 protocols were ensured to keep participants safe. These included the researcher and participants wearing face masks, maintaining social distance, and washing hands or using hand sanitizer before and after the interaction, as needed. The interview was held in a well-ventilated space. Furthermore, before each interview, the researcher ensured that the recording device, both the audio-recorder and the recorder on her smartphone, were operational (Whitehead & Lopez, 2013). The interview consisted of semi-structured open-ended questions designed to allow participants to express their thoughts on their NR experiences and the factors that influence their practice (Jackson, 2013).

In addition, participants were double-checked to see if they had signed their consent forms before beginning each interaction. Furthermore, before each interaction, all participants were given a verbal description of the interview and its purpose, and their verbal consent was obtained. Also, the researcher, maintained rapport with the participants and assured them of

their confidentiality and anonymity, which is an important aspect of research ethics (Polit & Beck, 2020). This was done to assuage participants' fears that any part of their voices or words would not be released to anyone in authority within or outside their facility.

Before the interview, participants were made aware that they would be audio-recorded. The face-to-face interaction included a total of seventeen (17) participants. The researcher interviewed nine (9) nurses and midwives at the Nsawam government hospital and eight (8) nurses and midwives at the Regional Hospital, Koforidua. Also, during the data collection phase of the study, it was ensured that participants were not on duty during the scheduled time for the interview. In addition, eligible participants who were working on the day of the interview arrived a little earlier before their working shift to ensure minimal distraction and absolute attention during the interaction. But even so, three (3) participants were interviewed after they had closed from work. They were, however, aware and had planned ahead of time. The interview sections lasted for over three days in each facility, with a maximum of three interviews per day.

The interviews lasted 45 to 60 minutes and started with a grand tour question that allowed participants to freely express their views on NR practice in the clinical setting. Furthermore, the researcher's use of follow-up questions clarified ambiguous statements. Additionally, the interviewer also used probing to gain a better understanding of the perceptions and experiences of participants with NR (Alomele, 2017; Barrett & Twycross, 2018). Moreover, other non-verbal communications such as body language and tone of voice noted during the interaction were recorded into the researcher's field diary (Polit & Beck, 2009, 2020).

The interviewer attempted to maintain order and focus throughout the process by ensuring that questions and answers were related to the topic (Barrett & Twycross, 2018). Following each interaction, the interviews were transcribed and handwritten in English. Participants

were interviewed until data saturation was reached and there was information redundancy. In qualitative studies, saturation occurs when no new information or themes are collected or generated from participants (Sim et al., 2018).

3.12 Data Management

Data management is the ability of the researcher to save and control the information obtained from the participants (Polit & Beck, 2020). Therefore, soft copies of the transcripts were kept on the researcher's laptop with a double-password inscribed on it. This ensured limited access to only the researcher and supervisor (Lincoln, 1995; Polit & Beck, 2020). In addition to the recorder, transcription, and field notes were kept in the researchers' hall under lock and key to prevent unauthorized access to the documents. Participants were also given pseudonyms for easy identification and to protect their identities. These are under Section 24 subsection 3 of the Republic of Ghana's Data Protection Act, 2012, which requires the protection of unauthorized people from gaining access to stored data from participants.

3.13 Data Analysis

The interpretation of information obtained from the research field is known as data analysis (Lincoln, 1995). It enables the researcher to divide the large amount of data collected into small bits, allowing the researcher to make logical sense of the information gathered. As a result, thematic content analysis was used to analyse the data, which was the most appropriate data analysis strategy for QD studies (Kim et al., 2017; Sandelowski, 2010; Willis et al., 2016). Thematic content analysis allows data analysis by identifying similar terms and ideas from participants (Braun & Clarke, 2006; Graneheim & Lundman, 2004; Lincoln & Guba, 1986).

Also, it enabled the researcher to analyse the experiences of nurses and midwives on NR practices in a systemic manner, eliciting all necessary findings from the data obtained from participants. The analysis was done using the deductive approach, with the analysis phase

guided by the theory of reasoned action, which served as the study's theoretical framework (Braun & Clarke, 2006; Neuendorf, 2019; Willis et al., 2016). Following each interview, the researcher completed a handwritten verbatim transcription in English by hand. The transcripts were read and reread several times to gain a better understanding of the information gathered from the nurses and midwives (Braun & Clarke, 2006). After that, time was spent to align similar statements and expressions made by participants, allowing the researcher to join words and terms that resulted in the emergence of significant patterns.

These patterns were grouped to form codes and merged to form sub-themes and themes. Codes such as "love," "happy," "contentment," "joy," and "affection for the baby" were grouped and labelled as "compassion for new-borns." Then, along with other codes such as "good knowledge and understanding" and "sense of responsibility," were grouped to form a single sub-theme, positive attitude toward NR practice, under the theme "attitude towards NR." These systematic steps enabled the ability to extract meaning from the massive amounts of data collected by slicing them into smaller pieces and ensuring that every minute aspect of the data got examined (Braun & Clarke, 2006; Willis et al., 2016).

The formulated themes got reviewed several times to ensure accurate representation of views shared by participants shared. The researcher made sure the "themes" truly represented the views shared by participants. Finally, the themes were named, with some merged and others renamed to fit the data and the participants' perspectives. A data analysis structure table (see table 4.1) shows the themes and sub-themes discovered during the analysis, allowing the provision of a more detailed description of the entire analysis process in a tabular form (Lincoln, 1995; Neuendorf, 2019). These were done under the supervision of the research supervisors to improve data analysis.

3.14 Methodological Rigour (Trustworthiness)

According to Lincoln and Guba, trustworthiness is one way for qualitative researchers to persuade themselves and their readers that their research findings are significant (Lincoln, 1995; Lincoln & Guba, 1986). They refined the concept of trustworthiness by introducing credibility, transferability, dependability, and confirmability criteria into qualitative studies to complement the traditional quantitative assessment criteria of validity and reliability. To enable the acceptability of the study, the researcher ensured the total acceptability of the findings by ensuring that the research process went through the necessary rigor. The degree to which the research represents the actual meanings of the research participants is called credibility in qualitative studies (Lincoln and Guba 1985).

Credibility considers the "fit" between respondents' perspectives and the researcher's portrayal of them (Tobin & Begley, 2004). For this reason, the appropriate methodology and design were used for the study. A qualitative descriptive study helped in investigating the nurses' and midwives' perspectives on what influences their NR practice. Also, only individuals who met the inclusion criteria got chosen for the study to gain credibility. The researcher visited the various departments to ensure a friendly atmosphere between her and the participants. Additionally, pre-testing the interview guide to ensure it is appropriate for the study was another step to ensure credibility. Also, after each interview, a verbatim transcription was completed to ensure that the audio recorded was genuine. Dependability is the ability of researchers to ensure that the research process is valid, traceable, and well documented. When readers can examine the research process, they can judge the research dependability (Lincoln, 1995; Lincoln & Guba, 1986; Tobin & Begley, 2004). For this reason, all interviews done for the purpose of the study were audio-recorded and a field diary was kept to document other non-verbal cues. Also, an audit trail was kept on events and documented, and all the steps involved in qualitative research were followed accordingly and

precisely throughout the study.

The transferability of a study's findings describes how applicable they are in another context with similar characteristics (Lincoln & Guba, 1986). As a result, the researcher provided a detailed description of the research settings, the design used for the study, the sample size, and the method of data collection. Additionally, a description of the inclusion and exclusion criteria, the number and length of data collection, and the time frame for data collection were explained (see chapter 3). Confirmability is concerned with demonstrating that the interpretations and findings are from the data, which necessitates the need to explain how conclusions and interpretations were reached (Tobin & Begley, 2004). Guba and Lincoln (1989) define confirmability as the achievement of credibility, transferability, and dependability. The researcher ensured that the study's findings represented the perceptions and views of the nurses and midwives on what influences their NR practice, rather than her preferences based on her knowledge or experiences with NR. With this, the researcher, always went to the field as a researcher and not as a trained paediatric nurse. This same mind-set was used during the analysis to allow her to get a true reflection of what the participants presented (Levitt et al., 2013). This section discussed the researcher's rigor in ensuring the entire process and findings were credible and trustworthy. In the following section reflexivity is discussed, specifically how rigor, objectivity, and limited biases were maintained throughout the research process.

3.15 Reflexivity

In the previous sections, much of what has been outlined are examples of reflexive engagement by the researcher. Reflexivity is argued to be one means of guaranteeing rigor and quality (trustworthiness) by qualitative researchers in their work (Teh & Lek, 2018). Again, as a self-reflection, reflexivity is indicated to be influenced by the researcher's personal, dialogical, and emotional stands (Burkitt, 2012). Furthermore, reflexivity in

qualitative study ensures that the researcher continues to reassess self in order not to influence people's responses and reactions. It was therefore the researcher's conscientious effort to have a defined position on the phenomenon (performing NR) under study, by ensuring that previous knowledge and experience did not affect the research (Sultana, 2017).

During preparations for fieldwork, I asked for advice from my supervisors on the appropriateness of a senior nurse researcher, interviewing mostly junior nurse participants. In consideration to both similarities and differences between the researcher and the participants (Berger, 2015; Teh & Lek, 2018), it was particularly significant to share my position as an insider (Senior Paediatric Nurse) and experiences with the study participants. Self-reflection to the potential challenges seem key to the successful conduct of the interview, although I was mindful that as a Senior Paediatric Nurse, participants would be aware that I had some experience of what it was like to work in NICU. In this instance, my background as a Senior Paediatric Nurse, working in NICU in a different facility, was carefully negotiated to avoid influencing the data to limit any biases or prejudices. It was, nevertheless, progressively necessary for me to concentrate on self-knowledge and sensitivity, well recognize my role in the concept of experience, cautiously self-monitor the influence of my biases, opinions, and personal skills; in maintaining the balance between the self and the collective, in this study (Berger, 2015).

I did, however, remained sensitive to the potential power relationship occurring between senior officers and junior staff, particularly within the context of the nursing profession. This could also include how participants perceived my educational status. Throughout, however, the sensitive nature of exploring participants' attitude, knowledge, perceptions, and behaviour in the performance of NR, in view of their clinical setting, experience, and beliefs required careful negotiation. I was incredibly careful to make sure I put participants at their ease and establish that they were comfortable talking to me. I used positive body language, which

made it clear I was listening to what I was being told, while adapting a slightly passive interview style, making it clear that what a participant told me had legitimacy and was important (Silverman, 2013).

Nonetheless, most of the participants were cautious to communicate liberally about their experiences of performing NR, in case it affects their employment. Therefore, to reduce this anxiety, the interview started with me needing to explain my position in the study and talk about the experience of working as paediatric within the Eastern Region. Participants were also given the opportunity to talk about themselves, which followed with bland questions. After this was a shift to more thoughtful questions asked about the participants' experiences with NR in their clinical settings. Having shared my experience as a paediatric nurse, within the region, with my research participants, placed me in the person of an "insider" and therefore presented with these benefits: easier reception, a significant knowledge about performing NR, and appreciative of participants nuanced responses (Kacen & Chaitin, 2006; Padgett, 2008). Sharing my personality also allowed the participants to become conversant with me, and the purpose of investigation. A relationship was also established between me, the participants, and the investigation.

Participants, who accepted to communicate their experiences and perceptions with me, became very collaborative and open, once they knew who I was. My paediatric nurse position influenced the way of collection and analysis of data, in exploring factors influencing NR. It was possible for me to go into the study with some understanding (i.e., some ethical and professional sensitivity) about NR, and to discuss specific themes more without struggle or much cognizant of tackling them. However, participants constantly made unfinished conclusions, with the notion that "you understand the situation …" (e.g., lack of equitable health resource and support for the nursing staff).

Nevertheless, participants' presumption of my understanding and sentiments to their

sincerities, as we interact, comes with the menaces of them holding back views they may deduce to be apparent to me, paying less attention to, and turning a blind eye to some aspects of their experiences. However, due to my position as an insider (paediatric nurse), I considered it necessary to be constantly attentive and thoroughly self-assess by what means my presence, and in what way I am carved in the discussion.

The reflexive personality is because of the emotional relationship to others. Consequently, this response plays a major intricate part in our reflections of the self (Holmes, 2010). The suggestion is that people's opinions of themselves, along with their social world, are due to the connotations they give to them and the actions of others (Holmes, 2010). The researcher's assumption, therefore, is that individuals emotionally relate to people in their social interactions. Such emotional involvement habitually influences ones' self-reflection through their privately instinctive discourse, as they engage with others voice and appearance. Which predictably, also had an impact on the depth of data collection (one-to-one interview), and the analysis (Burkitt, 2010). Consequently, there was the need for me to pay more attention to compassion and self-knowledge, and enhanced understanding of the role of my personality in the construction of knowledge.

Ultimately, my personal position and opinion have been helpful to me, to assess my study, as well as revealing my research findings and conclusions to public evaluation. Although, it would be gullible of me to assert that self-reflection can ensure the credibility and truthfulness of research. Nevertheless, I would encourage the role of reflexivity in compelling me to reflectively stay engaged. Engaging in instinctive scrutiny has also perfected my ability for self-evaluation. My position, therefore, foresees reflexivity as relating to a sort of "emotional agency" that is interactive, and for that matter involves demands for confidentiality.

The next section discusses the ethical consideration and the other processes that were involved in the study.

3.16 Ethical Consideration

Ethical consideration in research studies ensures that participants' dignity and rights are protected throughout the research process. Therefore, ethical clearance was obtained from the Ghana Health Service Ethics Committee and the local institutional review boards of the Regional Hospital Koforidua and Nsawam Government Hospital with an introductory letter from the School of Nursing and Midwifery, University of Ghana, Legon. Before the face-to-face interview, all potential participants were given an information sheet; this contained detailed information on the entire study.

The researcher explained the study's rationale, obtained signed consent forms from each participant, and maintained confidentiality throughout the research process. During the interview, participants were informed that they could leave at any time without consequence. They also had the absolute right to choose the date, time, and location of the interview, and it was conducted in English, the language of choice for the participants. To protect the identities of participants, personal identifiers such as name and address were also excluded from the study. As a result, the use of pseudonyms was maintained throughout transcription and analysis. Furthermore, the data collected, and the field diary were protected from unauthorized third parties by storing them on a computer with a double-password, with access limited to only the researcher and supervisor. Similarly, transcripts and other research documents were kept under lock and key at the researcher's home.

Furthermore, as discussed in section 3.11 above, COVID-19 protocols were maintained. Prior to this, the participants were informed about the advantages of the covid-19 protocols for both the interviewer and the interviewee. In addition, as a token of appreciation, participants were given 250mls of hand sanitizer, hand tissues, and mini towels after the interview.

3.17 Summary

This chapter discussed the researcher's methodology and methods. The study took a qualitative approach, with a qualitative descriptive study being the exact design used to allow appropriate answers to the research questions and objectives. The purposive and criterion sampling techniques were used to select participants who met the study's inclusion criteria, and an interview guide was used as the data collection tool.

Furthermore, a face-to-face semi-structured interview was conducted for 17 nurses and midwives, after the researcher has received ethical clearance from the Ghana Health Service Ethics Review Board and an introductory letter from the school of Nursing and Midwifery, University of Ghana, Legon. Acquaintances and familiarisation were created with the ward in-charges and the nurses and midwives from both facilities. Also, the interview was audio-recorded and transcribed verbatim in the English language by the researcher. Thematic content analysis was used to analyse the data. In addition, the data was stored on the private computer of the researcher under a password, also all transcripts and field notes were kept under lock and key in the researcher's hall. The next chapter is a detailed account of the discussion of the findings from the study together with the demographic characteristics of the participants.

CHAPTER FOUR

FINDINGS

This chapter summarizes the study's findings by outlining an account of the factors that influence the nurse or midwife's performance of NR. The researcher interviewed seventeen nurses and midwives at the Regional Hospital Koforidua and the Nsawam Government Hospital. The theory of reasoned action by Iczek Ajzen and Martin Fishbein served as the study's organizing framework (Fishbein & Ajzen, 2011; Morris et al., 2012). As a result, the theory's constructs and the study's objectives guided the formation of the themes and sub-themes.

The researcher identified five (5) themes and eleven (11) sub-themes. In the subsequent sections, there are explanations of the findings of the study along with some comments and quotes expressed by the participants. Furthermore, the first four (4) identified themes were consistent with the theory of reasoned action. They are nurses' and midwives' attitudes, beliefs, and perceptions (subjective norms), behavioural intention, and performance (behaviour) of NR. Meanwhile, the data also revealed one emerging theme: improving NR practice. Also, this chapter has included a description of the demographic characteristics of the participants.

4.1 Demographic Characteristics

The study interviewed seventeen (17) nurses and midwives. There were nine (9) midwives and eight (8) nurses. All the participants were professional nurses and midwives with at least a diploma in either nursing or midwifery as the basic qualification. Three of the seventeen participants were paediatric and neonatal nurse specialists, while three midwives had a BSc in midwifery and two had a post-basic certificate in midwifery. Furthermore, all participants had

worked at their current units for more than a year (NICU and Labour Ward). Additionally, all the participants were females and Christians. The researcher could not get male nurses or midwives as well as participants with other religion such as Islam (see Section 3.7 in Chapter 3).

The number of years worked ranged from two (2) to seventeen (17) years, with an average of six (6) years, and the participants' modal age was thirty-three years. The findings revealed that majority of the participants had rotated through the facility's maternal and child health unit. Furthermore, all participants confirmed having received some training on NR. A detailed description of the demographic characteristics of the participants is shown in Appendix H.

4.2 Themes and Subthemes

The researcher used the Theory of Reasoned Action to organize the themes and sub-themes for the entire study. With that, the researcher identified four (4) main themes and one (1) emerged theme. The themes will be discussed, interpreted, and explained in this chapter; whiles some representative quotations from participants will provide additional information on the subjects. A tabular presentation on the themes and sub-themes is also shown in Table 4.1 below.

Table 4.1 Data Analysis Structure

THEMES		SUBTHEMES	CODES
THEORETICAL	**EMERGED**		
Attitudes towards the performance of New-born Resuscitation		• Positive attitude • Negative attitude • Mixed feeling	ATT
Beliefs and perceptions about the performance of New-born Resuscitation **(subjective norms)**		• Opinions from referent others • Normative beliefs • Motivation to comply	SUBNORM
Behavioural Intentions towards New-born Resuscitation		• Preparation before NR	INT
Performance of New-born Resuscitation **(BEHAVIOUR)**		• Performing NR per standard guidelines • Experience	PRAC
	Improving new-born resuscitation practice	• Working environment • Monitoring and Supervision	IMP

4.3 Attitude towards the Performance of New-born Resuscitation

Participants expressed a variety of reasons for performing NR. Before a nurse or midwife performs NR, they consider the procedure's importance to the new-born as well as the impact it may have on the family. As a result, some people had varying attitudes toward NR, ranging from positive to negative, with others having mixed feelings about whether to perform NR. However, the personal beliefs about the benefits of NR to the new-born were found to influence the nurse or midwife's attitude toward NR.

4.3.1 Positive Attitudes

Some positive factors influenced the participants' decision to perform new-born resuscitation. "Knowledge and understanding" of new-born resuscitation, "compassion for the care of the new-born" "a sense of duty/responsibility to help maintain and sustain the baby's life" and "adequate preparation for labour and delivery" were some of the factors identified to have influenced positive attitudes towards NR. All seventeen participants had good knowledge on NR, as they were able to explain NR well irrespective of the facility, or profession (nurse or midwife). Some added the steps involved in NR and the importance that each step has on the survival of the new-born.

> *"...should I say it's about the intervention given to the babies that have some difficulty in breathing that have asphyxia and then we usually use mask and bag....the ambu bag and the mask for artificial ventilation to help the babies start breathing again and then I think in doing that the first thing that you should be concerned about is the air way that you have a patent airway so first you check if there are any secretions...if they are secretions you suction I think with the suctioning too what I know is you start from the mouth ...you suction the mouth first and then you move to the nostrils and then after getting a patent airway a secretion free airway you continue to bag and do the ventilation"* ***(KEKELI)***

All the participants described new-born resuscitation as a way of helping the baby breathe and then maintain the life of the new-born.

> *"Okay so new-born resuscitation is performed to help baby come to life or trying to help baby, in simple terms trying to help baby live"* ***(EFE)***

"Resuscitation basically is like bringing baby back to life when a baby is born when you score and then realised that the APGAR is kind of poor…" ***(PRINCESS)***

The nurses and midwives mentioned that most of the time they perform new-born resuscitation because of the positive effect it has on the new-born. Participants again, highlighted the importance of NR and how it has improved the general care of the new-born with breathing difficulties:

"There are so many advantages because if you are able to resuscitate within the time range. Within the first minute and you are successful, baby gets healthy and goes home without any complications…" ***(RAKIA)***

"To be honest with you after the MEBCI training I realized that the ventilation and in fact the training we had was very beneficial because what we were doing previously, robbing the back of the baby, turning the baby's head upside down wasn't effective like sticking to the Golden Minute and properly ventilating the baby…those ones were very appropriate if you know all the techniques: how to position the baby, how to position the mask and then the ambu bag. It is very effective and knowing the results that we have been achieving over the time keeps us going….i mean if you do one, two and you are achieving anything definitely you won't see the need to continue with it…but if you do 1, you 2, 3 and the result is fantastic it will keep you going and you would want to do it over and over again." ***(NARKIE)***

Most of participants expressed the feeling of content, happiness, and joy if they get to revive and maintain the life of the baby with some form of breathing difficulties at birth.

"When I do it and baby responds immediately, in fact you are glad within. You know mother is going home with a healthy baby" ***(RAKIA)***

Some nurses and midwives have grown to love caring for babies and see NR as one of the responsibilities for a health care provider at the Labour ward or Neonatal Intensive Care Unit (NICU). Participants reported that most people consider new-borns vulnerable, and their survival is primarily dependent on the health care provider. Therefore, the nurses and

midwives deeded it as an honour and a privilege to save their lives**.**

> *"...I think it is very nice working with babies and with my duty as a nurse working with babies is to save them so if they are having breathing difficulties I have to help them or revive them…"* ***(ROSE)***

> *"The love of the baby for me that is what I know. Everyone becomes, my own all the babies. I figured that when you work long at the neonatal intensive care unit you will automatically love babies; you will always want to bring any of them back to life. So the love of the work and the babies is what motivates me."* ***(ABA)***

4.3.2 Negative Attitude

Some participants expressed concern about nurses' and midwives' negative attitudes toward NR. There were situations they witnessed first-hand at clinical sites or were told about by close relatives. It can range from a failure to recognize one's responsibilities to a lack of interest in the following current and accepted new-born care trends. Some participants reported that some skilled birth attendants do not see the need to resuscitate babies, even if the baby requires assistance with breathing. A personal experience was shared by a participant:

> *"Do you know that with what am saying a certain lady, she is a friend of mine it happened to her she couldn't push so when the baby came the baby was not crying well, so they left the baby. Fortunately or unfortunately the baby survived but the sad part is that, he is not "normal" but now with physiotherapy and everything he is a bit fine…"* ***(KEKELI)***

Another participant expressed concern about the low level of willingness of some nurses and midwives to perform NR or continue with proper monitoring even after a team has successfully managed the baby within the first 1- 5 minutes of life:

> *"When you bring the baby, then they check the spo2 and they say the spo2 is good 90% so the baby is okay. They just leave the baby there. They don't do anything for the baby (**feeling sorrowful**). Meanwhile, we too we have helped the baby to breath.*

There is respiration; there is pulse so they have to also continue from there. The next day or about 30 minutes or one hour later, when we go there and ask about the baby, they will tell you that the bay's condition has changed so that is the difficulty we have." ***(EWURAMA)***

A participant stated that the negative attitude of some of her colleagues toward reading and learning new trends in NR had a significant negative impact on their overall attitude toward adapting and adapting to new methods in their practice.

"*Sometimes we don't read. Especially, when you are a midwife, a new staff and you have a case like that, instead of you to read the steps and follow the steps and do it, they don't do it. So you will not know how to perform it (resuscitation). Then you are doing just like us. It's easy you will be doing it your way but when you follow the protocol and you do it, you will achieve what you want with better results. So the thing is we don't read. That is our problem. We don't like reading even though the protocol on the wall"* ***(EWURAMA)***

Others believe that the protocols for NR are impractical in our settings, so they do what they think is right based on what they have learned from others in the field or skills that have worked for them.

"Yes sometimes the protocol doesn't help. It is not helpful. When you follow it, is not practical…" ***(EWURAMA)***

4.3.3 Mixed Feelings

Some participants had mixed feelings about the performance of NR in certain situations, particularly when the baby arrives with gross malformations or signs of a poor prognosis. The gestational age and general condition of the baby (babies with very gross abnormalities) impacted their performance of new-born resuscitation. Some participants expressed their thoughts on how saving the life of a baby with severe malformations can have future implications on the life of the baby, the mother, family, and the nation as a whole. With participants indicating that, some SBA may be hesitant to provide the necessary care urgently

as they would have done for a "normal" baby.

> "*Yes…when it is a preterm baby and when the neonate is not responding well at all after birth. I will say yes and no; with the yes you are trying to save the child and with the no you are thinking even if this child should survive this child will have these abnormalities and will not survive or even if they survive the child will become a burden to the parents or society so for me I think the no is like 70percent and yes 30 per cent. The no I will perform it but it will not be like that of a normal child that you put all your efforts into reviving the child"* ***(ARIN)***

The findings discovered that in situations where both mother and baby require extra assistance during labour and delivery, some of the participants would prioritize saving the mother's life over saving the baby's, with the intention that a mother who is still alive can always conceive another pregnancy. Traditionally, the mother has always been more important than the new-born. This has directly or indirectly influenced the thinking of some skilled birth attendants, influencing how they view the need to protect, sustain, and maintain the life of the new-born.

> *"…but with the midwives hmmmm…as for them they take care more of the mothers than the babies I think they believe that when the mothers survive they can give birth again but they have forgotten that the babies are the reason why the mothers at the labour ward. So they have a kind of attitude even though they have also gone through the MEBCI training but they still have their problems"* ***(PEACE)***

> *"…if the baby comes out the one who will take care of the baby will not have compassion like the mother so if you have the 2 lives to save, you save the mother…"* ***(OFOSUA)***

4.4 Beliefs and Perceptions (Subjective Norms) about the Performance of New-born Resuscitation

According to the Theory of Reasoned Action, beliefs and perceptions (subjective norms) are the effects of significant others on the ability of the nurse or midwife to perform new-born

resuscitation. Therefore, opinions from referent others, normative beliefs, and motivation to comply were the sub-themes identified as factors that influence nurses' and midwives' beliefs and perceptions of NR. The social space has an enormous influence on behaviour because other people's opinions, culture, and traditions influence people. Motivation to comply, on the other hand, is an individual's ability to either adhere or not to what is socially acceptable, even though social pressure can influence behaviour; it is not always the case because people ultimately make their own decisions.

The findings suggest that nurses and midwives see their ward in-charges, colleague nurses and midwives and other staff as individuals that influence their decision to perform new-born resuscitation.

4.4.1 Opinions from Referent Others

Significant others or people of importance around the nurse or midwife, such as their ward in-charges, colleagues, doctors, anaesthetists, patient relatives, and mothers of the babies, impacted participants' NR performance. The more the referent others agree to the performance of NR, the more likely the nurse or midwife intends to perform NR. According to the study's findings, almost everyone in their working environment approved of NR's performance, but the approval of senior colleagues (ward in-charges) was more pronounced. These were some of the perspectives expressed by participants.

> *"ooooo I think the presence of my ward in charge and other colleagues all boils up to team work and then especially with the seniors and the in-charges it rather improves the resuscitation because they are there to guide you and even help you when you are not doing things well or something like that"* ***(ROSE)***

Majority of participants mentioned that Medical Officers and Anaesthetists also do have influence towards the performance of new-born resuscitation, as they also approve of nurses and midwives performing NR.

"Anaesthetists come in when you go to receive the babies from theatre. The Caesarean Section babies, when you start resuscitation at the theatre you realised that because there, the team will not follow you, sometimes its only one midwife that goes to the theatre so when you realise that maybe you are the only one with a student or an orientation nurse. You realised that you are in difficulty you just call the anaesthetist then he comes in to help" ***(ANGEL)***

On the contrary, other participants disclosed that the presence of others, for example, colleagues and other staff and patient relative/ mothers does not necessarily have any impact on how they perform new-born resuscitation. The various views by participants are presented below:

"Once I have done my assessment and know that this baby needs resuscitation, the presence of others really doesn't count so much…" ***(EFE)***

"I Think NR is a nursing intervention…so you don't need anybody to come and approve that resuscitation should be done before you do it…yes we have all been taught and then we know when to resuscitate a baby without anyone approving whether it should be done" ***(ROSE)***

Some participants, however, shared how some individuals/groups disapprove of them performing NR. Among these groups or individuals were the baby's mothers/family members. However, one participant revealed that some medical officers criticize them whenever they perform NR and had to call the doctors for assistance.

"*The doctors…Sometimes when you come to work, and a baby is delivered and you need assistance. Maybe you have done what you can for but still the baby is not responding. You next action is to call for help. It could be that your ward in-charge is not around, and you happen to be the shift in charge. Those on duty with you may also be your junior colleagues who are now learning. So, you may have no option than to call a doctor for assistance. But surprisingly the doctor may be agitated and ask some unwarranted questions like "who told you?", "who asked you to do It?", "have you been to a workshop on new-born resuscitation before?... and "why are you doing it!". They sometimes do this and complain about us when we try to intervene. The doctors!*

(EWURAMA)

However, according to participants, family members and mothers are a major source of distraction due to their constant ranting about their disapproval of NR. These factors influence some nurses' and midwives' intentions to perform or refrain from performing new-born resuscitation, affecting the overall effectiveness of the procedure. These interferences by the family, as indicated by participants, are due to the family's lack of knowledge.

> "*Yes…. sometimes, if they are around, they can distract you because they are not into the profession. There are times too when you are doing the right thing, they can criticise you and they may think you are not doing well ……so! For the presence of the family and the mother during resuscitation I think that one it is not… Because they don't know what you are doing, they do not add anything to but rather they distract you. Some will be crying and even say all sorts of things to you" **(ROSE)***

Furthermore, participants were of the view that some family members' disagreement is related to their religious beliefs with regards to the performance of NR on their new-borns.

> *"…you know these relatives have their own thoughts and all that…. they will say that I don't want my baby to be resuscitated. And you know that if you had resuscitated this baby, he would have gotten better but because of sometimes religious beliefs, the myth and then some of the things that the relatives have…Because if something should happen after resuscitation and the baby don't survive you will be held responsible. Sometimes you have to take the risk but sometimes too because you don't want to take the risk you turn out losing the babies…." **(ROSELYN)***

However, when questioned about whether their actions towards NR are influenced by their religious or cultural beliefs, almost all seventeen (17) participants mentioned that their religious beliefs do not have any influence on their decisions to perform NR. One of them had this to say:

> *"No I don't think it should influence because every profession have its ethics or rules and regulations like if you are into this profession you are saving….in nursing our*

main aim is to save the person's life so you don't have to consider your religious belief before saving someone's" ***(ROSE)***

4.4.2 Normative Beliefs

Normative beliefs are the influence of others on the perception of others, which eventually influence behaviour. Hence, the individuals deemed as "people of importance" approval or disapproval of certain behaviours has a significant effect on the people that regard them as important. Participants mentioned some practices that directly or indirectly influenced their NR practice since it has become the norm in their various units and are acceptable. These are practices they learned from senior colleagues or developed as unit traditions.

"When I came to the labour ward, I was learning from my senior colleagues, even though they are protocols, they don't always use it. Turning the baby's head down, stimulating the baby, giving the baby oil were some of the practices I observed. They will be beating the babies which are not on the protocols but interestingly these practices were helpful. It always helped the baby to revive. Yes when they do it, when they tilt the baby head downwards, if there is fluid, it will come out. So with doing that, it helps the baby to breath. When you rub the baby with baby oil, it keeps the baby warm and it will also revive. So I learnt some of these things from them (senior colleagues). But with the protocols, we have to follow it but we don't since our predecessors are seen to be doing otherwise" ***(EWURAMA)***

"We do the simulation, we call it drills. It's done individually and its weekly. You practice it on a dummy and then write your name there should also be someone to know that you really did it" ***(PEACE)***

4.4.3 Motivation to Comply

The motivation of nurses or midwives to comply considers how their social circle's views and perceptions of NR influence their behaviour toward NR. According to the findings, most of the participants were intrinsically motivated to perform NR. Saving the baby's life and seeing a happy mother/family were some of the motivating factors mentioned by participants, and they mostly informed their behaviour toward NR.

One of the nurses described her experience with new-born resuscitation and how it has influenced her behaviour when performing NR:

> *"I have not seen, I think when it comes to everyone in my facility, it has always been positive. I mean we come hand in hand to see what we can do to help so there is no negative aspect when it comes to resuscitating. They all want to bring the baby back to life so they say, should I do this, should I get you oxygen, should I do something, and should I get you a medication. I think all hands on board to bring the baby alive"* ***(ABA)***

Working together as a team enables nurses and midwives to use each other's strengths when they are faced with difficulties. In the presence of colleagues, nurses and midwives can communicate ways of improving on-going resuscitation. The mother and her family continue to wield greater power and influence over the care of the new-born. The presence of the mother/family had a significant direct and indirect impact on how health workers performed new-born resuscitation. Some participants stated that seeing the mother inspired them to do everything in their power to save the new-borns life. Their presence, according to some of the nurses and midwives, instils trust and creates an insatiable desire to go the extra mile to save and preserve the life of the struggling baby.

> "*You know when the mother especially is standing by, and is like, madam please help my baby survive you will want to do everything in your capacity to help the baby survive. Yea sometimes when I am about doing the resuscitation, I call for the relative to come around. I want you to be here, I want you to see whatever that is being done for the baby so somehow it encourages you to do more for the baby"* ***(EFE)***

The findings also revealed that some participants were self-motivated and generally had good behaviours towards the performance of NR.

> *"…okay since am a senior staff midwife if my in-charge is there or not there. Once we have gone through resuscitation we have gone through the training. If she is there or not there, I can do my task without her. So, whether my in charge is there or not*

there I do my normal thing" ***(KEKELI)***

4.5 Behavioural Intention towards New-born Resuscitation

Behavioural intention refers to the motivational factors that influence behaviour performance, and the stronger a person's intentions (how prepared an individual is), the more likely they are to perform behaviour (new-born resuscitation). Participants shared their experiences of how being organized, leads to less or no interference and interruptions in ventilation when attending to the mother and new-born child needing resuscitation. They reported that, some of the routine in anticipation or preparation for NR included monitoring the mother and foetus, preparing equipment, and finding a supportive staff. These factors were influenced by their knowledge of NR, previous NR experiences, what they learned from others in the ward, and some traditions practiced within their units. Participants' responses varied depending on their profession (nurse or midwife) and unit (Labour ward or NICU).

4.5.1 Preparation before NR

Participants described the various activities they engaged in as they prepared for labour and delivery. They made pre-delivery arrangements such as arranging equipment for both delivery and resuscitation, ensuring a warm and safe labour room, close monitoring of the mother in labour, getting a helper, creating a friendly environment for the mother, and positioning of the expectant mother. They acknowledged that proper planning before delivery helped them stay organized and enabled them to predict and anticipate potential complications.

"..... you wouldn't know how the baby will come so as a nurse or midwife preparing for labour ....you will need your tools for resuscitation in case the baby is in respiratory distress and you have to help the baby to breathe" ***(ARIN)***

One of the neonatal specialist nurses gave a detailed description concerning pre-delivery preparation as follows:

"Okay so I think checking the parameters of the mother, about the mother's BP, I mean trying to hydrate the mother and trying to know the mother's pulse, heart rate, trying to check the labs especially the Hb or full blood count perhaps you will be going into labour and try to start with your patograph plotting or base on the patograph. And then the next thing is to try to check the heartbeat of the baby the foetal heartbeat which really gives information about what is really going on with the baby inside. And at least it will give you a fore knowledge about how you will prepare to receive the baby. And then even upon your vaginal examination, depending on whatever you found out during the vaginal examination you would want to know this baby especially in terms of rapture of the membrane whether there was this meconium when you did your VE with your fingers. So per your physical assessment, your assessment as in taking the other heart rate of the mother, that of the baby, the patograph, all those other things will inform. You whether you really need to be out to get ready for a very critical delivery or is just a normal one. However, whichever delivery you are making, you still have to anticipate an emergency or a critical case should it happen so you have to really set your flat surface for the resuscitation of the baby at any point in time. You should have your radiant warmer on. Yea so these are some of the things. You need to have your oxygen tank ready, your nasal prongs, your ambubag, all those other things that help in resuscitation, you have to set it up for the baby and then you have to set another up for the mother too should anything happen. For the mother yea" ***(EFE)***

Again, Participants shared their perspectives on how they managed a normal baby as well as how they identified new-borns with breathing difficulties or "babies who did not cry" after birth, as that was the term most of them used. Participants described normal babies as new-borns who were vigorous, active, and cried a lot. They discussed how they cared for such infants.

"With the normal baby after the mother has delivered, baby is crying. Normally everything is fine, you clean the baby to keep the baby warm" ***(KEKELI)***

Another participant talked of how to manage and care for an asphyxiated baby:

"So once upon physical assessing the baby you see that the baby's colour is changing

from pink to blue. You could see that the baby is lacking oxygen. Also, when you monitor the baby and the spo2 of the baby is dropping like let's say when it gets to less than say 60%, 70% it means the baby needs help, so you need to resuscitate the baby. Also, a baby with secretions blocking the nose and the mouth also those situations cause the baby to be asphyxiated or can even bring about neonatal death so we also resuscitate the baby. Yes…to make the baby stable" ***(MARIA)***

Even though participants mentioned that working in groups is beneficial to NR, they barely spoke about the need for a team, specifically for NR during their working hours. However, most of them stated they frequently call for support when confronted with difficulties and require additional assistance.

"…We clean the baby, we changed wet cot sheets, we placed a new one still baby is not breathing so we have to call some of my colleagues from NICU to come and help and we were able to help the baby breath…" ***(EWURAMA)***

A participant mentioned that team formation is critical during NR; however, because she lacks proper training on it, hence she does it when needed.

"team resuscitation is very effective, I don't really know but I have not had any workshop or training on team resuscitation, but I am just using my discretion or what you are saying here to give my answers…but I know it's very effective because as a nurse if you are on duty alone you will definitely loss your babies" ***(ROSE)***

Others also mentioned how lack of knowledge and poor skills on the part of their colleagues can make working as a team a bit frustrating.

"Okay when you are in a team where the instruction that you are given is not going down. Let's say you want somebody to bag but the person don't know how to bag, you want somebody to do cardiac compression the person doesn't know, then you become a bit frustrated because you can't be doing all the other things all round. So, with that if the person knows how to resuscitate, it really gives more motivation and you know that what you are doing you are really all picking up. But if the other person doesn't know what to do then you become a bit discouraged and stressful" ***(EFE)***

Some participants also reported that a few of their colleagues had undesirable attitude and urgency when saving lives during labour, delivery, and resuscitation, because of the way they respond to emergencies. This, for some reason, can negatively affect their response to a non-breathing new-born baby when a colleague needs help and hence delay the initiation of ventilation:

> *"There is that attitude or behaviour of not showing concern, you might find your colleague is not busy and you happen to have an emergency like you have delivered an asphyxiated baby in your care, you call her to come and help, and she comes very slowly, like it's not an emergency or like she doesn't want to help".* ***(ABA)***

When one nurse was quizzed about whether she or other colleagues have ventured to confront nurses and midwives with such behaviour, her response was that they do not take any action for the sake of maintaining a good social relation, mostly outside the working environment.

4.6 Performance of New-born Resuscitation (Behaviour)

The primary intervention for asphyxiated babies immediately after birth is new-born resuscitation. It is a skill that requires the skilled birth attendant to have adequate training, to enable them to follow specific steps (behaviour) to help the new-born breathe within the first minute of life and beyond. Participants of this study identified frequent training of staff and years of experience as some of the factors that influenced NR performance (behaviour).

4.6.1 Performing NR per Standard Guidelines through Training

Almost all the participants stated that they had received some training in new-born resuscitation; findings from the study identified three (3) categories concerning where participants claimed to have received training: Most participants received their training during in-service sections organized internally by their facility or ward. A few, particularly those who had worked for more than three years, admitted receiving their first major training during a five-day intensive hands-on workshop organized by MEBCI under the auspices of GHS. However, only three (3) participants indicated they received their training during their post-basic education. Also, most of the participants mentioned they had internal refresher

programs organized by their departmental heads, doctors, and ward in- charges. All these training, according to participants, were intended to equip the nurse or midwife in enhancing their skills and knowledge in the performance of NR.

> *"Okay when it comes to frequent workshop on neonatal resuscitation is most at times it comes from my in charge. Once we have new people in, there is a need for them to learn how to resuscitate a baby so I think every batch, my in charge does well, organize a workshop, let them know much about the resuscitation"* ***(ABA)***

> *"Yea so especially for the staff that come to NICU and maternity, we go through new born resuscitation before they start work aside that when time goes on, when you even come on board we still train those who are already in it."****(EFE)***

Two of the study participants both trainers at their respective units, talked about how frequent they train staff and the caliber of nurses they typically train. They also highlighted some of the areas they incorporate in the training programmes as; NRP, ECEB, and the Helping Baby Breathe Protocol, which is one of the many new-born resuscitation protocols.

> *"I do the training. I train interns; I train rotation nurses and my students and new staffs. The training happens as and when I get new staff or the rotational midwives. New staff comes in yearly, for the rotational nurses sometimes half a year, I mean those at the maternity block. But with those in the system, I have already trained them. They are already practicing neonatal resuscitation and if there is any new protocol then we add up. I don't think any new thing has been introduced"* ***(RAKIA)***

> *"As and when new staff comes I am the preceptor for maternity so we organize and do a little in service practical for them"* ***(NARKIE)***

The above assertions indicated that most of the time training were organised when they are new staff. These training workshops were based on NR certified protocols, at the two study sites for nurses and midwives, to equip them in ensuring effective performance (behaviour) towards NR. However, some participants were completely unaware of the protocol used to train them or the one that guided their practice on the ward. Some of them shared the

following:

> *"No please, I don't have any idea about the protocols used here"* ***(ARIN)***
> *"No, I don't remember any of the protocols on NR"* ***(PRINCESS)***

Participants mentioned certain terms and technicalities involved in NR, prompting the researcher to inquire further to see if participants had knowledge and understanding of these terms. The terms "golden minute" and "APGAR" were mentioned. Diverse points of view were expressed; only a few could define these terms very well, while others had a fair understanding of them. The following are some definitions of terms as explained by participants:

> ***"****When the baby comes out and you are helping the baby to breath you have to do it for 60 seconds which is one golden minute. That is my understanding"* ***(EWURAMA)***

She further explained into details the link between APGAR and birth asphyxia.

> *"The APGARs are the "appearance", "pulse "and "respiration". So, when the baby comes and within the first minute is 6 it means you have to help the baby to breath. The first minute too the first five (5) minute too is 7, you have to help or when the first minute is 5. If its 3 or below6, it means you have to help the baby to breath. Below 6, you stimulate the baby and you suction if there is fluid. If you finish the suctioning the baby, then ventilate..."* ***(EWURAMA)***

Other participants also explained "Golden minute" together with its relevance to the baby's health and developmental progress in future.

> *"So Golden Minute is helping the baby breathe within the first 60 seconds or first one minute with that it is assumed that when you achieve the Golden Minute the baby can function, or the brain can really function so… within that one minute if you are able to help the baby breathe it is assumed that all the organs will function well to prevent further or future complications on the baby"* ***(PEACE)***

> ***"****Here if you get less than 4 or less than 5 in the first minute, we send to NICU low APGAR, but from 5, 6, 7-10 "de3" they are ok even after the resuscitation you get*

more than 5 the baby stays but less than 5 you take the baby to the NICU that is after the 5th minute you take the baby to NICU" ***(ROSELYN)***

The majority of respondents stated that training was both theoretical and practical. They were allowed to have hands-on practice or have a lead person demonstrate, whereas a few participants had the opportunity to re-demonstrate after the lectures due to a lack of resources and time.

"Yes we use the dummy with…the one with the umbilical cord" ***(OFOSUA)***

"oooo! At least we have the "neonatalia" (mannequin). Even if she (trainer) was explaining one person or 2 people tried their hands on it (mannequin) … noo! Noo! Not everybody (had the chance to practice)" ***(KEKELI)***

"...They train us at the meeting. A midwife will volunteer. A senior midwife will volunteer and train us. Yes she will perform it so that we all practice it, (but) no… we are not allowed (to practise)" ***(EWURAMA)***

None the less, most of the participants' acknowledged the importance of training and how it impacted the care they gave to the babies with breathing difficulties. It is mostly during these sessions that they got the chance to learn new skills, explore new areas and share ideas with other colleagues.

"Okay how does it improve neonatal resuscitation? This one it helps us a lot. Because for instance I will not go back and take maybe my labour book that I am learning. Like when we were in school "like the new-born how to care for them". Me I will not go and read but when we sit as a team then everybody will bring ideas then you are also keeping some new things in your mind so that when you are working, you apply them. So I think it (training) helps" ***(KEKELI)***

"I think it (training) has a positive impact because they are things that we used not to know and then even like through the training. We get to acquire some skills which we use; the training has a positive effect on the skill or on the job because we are yielding good results…I will say it's just some babies that do not survive after

resuscitation unless of course the baby comes out" ***(ANGEL)***

The majority, however, emphasized the importance of regular trainings to improve NR skills. Participants believed that by receiving training, they would be able to learn how to properly care for the babies. Training teaches you what to do at any given time and how to understand the reasoning behind each step/technique.

Majority were of the view that no training or insufficiency in the knowledge and understanding on NR can lead to poor care of the asphyxiated baby at the clinical field. The nurse or midwife may have good intentions to manage the new-born but due to lack of knowledge may cause more harm than good. Although, majority of participants attested to having attended training on-site and at the region, there are still gaps in how probably these training programmes are organised, which policy and practice need to address, to ensure that all nurses and midwives working at neonatal units are well trained in NR. This can influence performance (behaviour) positively towards NR among the nurses and midwives working in such areas.

4.6.2 Working Experience

Another observation made was that individuals with more years of working experience were more confident in performing NR.

> *"it will not affect me* ***(with so much confidence)*** *...it will rather give me the zeal to go on because I know people are watching I need to do my best to bring this baby to life if it doesn't work then I know that with all this people watching I did my part but it didn't work"* ***(NARKIE)***

4.7 Improving New-born Resuscitation Practice

As we have seen, frequent training among nurses and midwives, and adherence to standard protocols were significant, as influencing factors in the performance (behaviour) of NR. However, participants believed the importance of improving NR practice cannot be

overemphasised and should not be based on only training sessions and protocols. As an emerged theme, participants, therefore highlighted on other factors that were needed to augment the performance of NR among staff in their facilities. These areas according to participants were said to be essential when the nurse or midwife performed resuscitation, and it had great influence on their performance in context of NR. These factors are analysed further.

4.7.1 Working Environment

Participants mentioned the conditions within the working environment, as a factor that impact practice. The nurses and midwives reported of certain factors in their immediate environment that had major influences on their performance (behaviour) in improving NR. All the participants revealed that the availability of resources (logistics and human), organisation of NR equipment, proximity between wards/ departments (NICU, Labour ward and the Operating Theatre), and relationships between staff, as areas that affected their performance of NR at the clinical field.

One midwife shared how availability of resources (supplies or equipment) had a positive impact on her performance of NR as compared to her former station, where resources were quite limited. This was how she narrated her experience:

> *"…as for this place they have things oooo! So, let's say equipment. Compared to my former place, so when I came here and realised the staff were also complaining that they don't have things I was shocked because to me "de3" they have. The basic things are there to use and they are available. So, the unit have the things and the staff too when it comes to calling for extra support you can also count on them; they are always people around so the eagerness to do the thing is high, if only you realised it fast and then you start early, you will get a good results…"* ***(ANGEL)***

The availability of equipment such as movable oxygen made transporting the babies from one facility to the other a bit easier. This helped the babies to get the necessary attention they

needed whiles being moved. These were acknowledged by some participants:

> *"It's not really far and because we were trained. We do the basic things so I think the distance doesn't affect really affect as I was saying we even have oxygen that we take it along so proximity is not a problem…"* ***(ANGEL)***

> *"It doesn't affect really much because the midwives have been trained. So before when there is a need you see them bagging from theatre or the labour ward before they bring the baby so they will start doing it even before they come to the NICU. So it doesn't make any difference at all when there is a need to connect to oxygen you see them bagging the baby connected to the oxygen, others will be doing the bagging someone too will be checking the pulse so it doesn't affect because they also do their part before they bring the baby here for us to continue"* ***(PRINCESS)***

Almost all seventeen participants mentioned the availability of drugs and intravenous fluids in their facilities. Majority stated that they always had some in stock (emergency cabinet) within the ward and the drugs/ infusions were always readily available for patient use.

> *"For here the drugs are available so far as the doctor prescribes it and then you order it on the HAMS just available for the relatives to go for it and then we have some at the ward stock that we do use during emergencies before we go to the pharmacy for it"* ***(ROSE).***

The lack of essential supplies in many resource-poor or low-income countries, especially in sub-Saharan Africa, poses a major barrier to performing effective new-born resuscitation (Coffey et al., 2012). In contrast to what the 'Every Woman Every Child' initiative by the United Nations recommends; it named the bag and mask device as one of the 13 inexpensive, efficient, but underutilized live-saving equipment needed to maintain and prevent new-born morbidities and mortalities (World Health Organization, 2014). These devices are needed to improve care, help effective and timely performance of NR.

Short distances between the NICU, Labour ward and the Operation Theatre were mentioned by participants as good initiatives. This allowed them to give prompt care to the babies in

terms of easy transportation from one unit to another. This was explained by some participants as follows:

> *"Okay, when it comes to the labour ward and the NICU, it is closer. Sometimes even once they realize baby has changed per vagina, they will alert you to prepare towards resuscitation or they will probably tell us that the baby will be coming… But when it comes to the proximity to the labour ward, we are very close. So, it is not difficult to transporting a baby to us at all"* ***(ABA)***

> *"Okay so in my place, the NICU is right at the centre of the labour and the maternity ward so if it is a delivery and then just around the theatre too. So, if is a delivery that was done at the theatre that needs resuscitation, we have to rush and bring the baby to NICU is not too difficult. If is in labour, so is close"* ***(EFE)***

Cordial relationship between staff in addition to the proximity between the NICU and the Labour ward were acknowledged as an effective way that contributed to the prompt care of the baby with breathing difficulty. Participants expressed these relationships between the nurses and midwives impacted care positively. Their ability to liaise and come together when need arise helped a lot, especially for the midwives. Whenever they were overburdened with trying to revive the baby, they always knew they could call the NICU nurses for assistance.

> *"It doesn't affect us. It rather helps, because where we are doing our work, we are helping the baby breath and the baby is not breathing, we run to the NICU to call the NICU people. I think they have been trained with; they are with the babies, so they know more than we know. So, we run to them for help so I think it helps. Unlike maybe the NICU will be far away from us maybe by the time you get to that place maybe something will have happened to the baby"* ***(AYELEY)***

Nevertheless, some participants mentioned various barriers that limited their ability to perform NR on daily basis, in their facility. If NR must be improved, according to these participants, then there is the need to provide most of these amenities to help progress the general care and practise of NR on the baby with breathing difficulties. Seven of the

participants spoke with passion on issues concerning limited supplies, lack of beds at the NICU, limited space for NR, lack of regular training for staff and poor organisation of NR equipment as some major obstacles that prevented them from performing and improving on NR. Following are some participants‟ expressions:

> *"…you are helping the baby to breathe then you realise that the baby may need further management at the NICU, so you will tell your other colleague to inform the NICU nurses about the case; that there is an Asphyxiated case with poor Apgar score and that the baby will need further treatment at the NICU. When the staffs at the Labour ward goes to the NICU; they will tell them that there is no bed and that they will come to the Labour Ward to help you with the resuscitation. You will wait for about 30 minutes to an hour. They will still not come.so you will have no option than to do a follow up as to why they have not come to help or take the baby to their unit. They will then tell you that they are having emergencies, so they are attending to them. Meanwhile, yours too is an emergency!!! So sometimes it is the beds. There is no bed so they can't take the babies to the NICU to cater for them..."**(EWURAMA)***

> ***"**…The ambubag, our penguin, suction machines our monitors we do need more for us to do the work effectively. At times there Is the will to do it but the things will not be available as it should because some of the things like "ambu bagging" maybe you have but some are old and they are not functioning well as expected" aha" so for you to achieve or not to achieve. We need more equipment and the training too they have been doing well but at least if they do it more frequently for us I know that it will help a bit for us to be on our toes" **(PRINCESS)***

> *"SOO… moving forward if we have the labour ward closer to us in case, we have to save the baby we can do it in a very short term. Then human resource available to be able to help when the need arises and the STG readily available so that anyone comes*

> *…can also do same knowing what the guidelines are" **(ROSELYN)***

4.7.2 Monitoring and Supervision

Another area of concern which participants did indicate, should improve on nurses and midwives‟ performance (behaviour) towards NR practice, was evaluation on new-born

resuscitation. Participants mentioned how monitoring and supervision had impacted on their performance of NR. Some expressed how monitoring and supervision helped them to be on their „toes" and do the right thing; knowing that someone will be checking on them. Other participants also reported of how face-face interactions helped them to have personal reflections on NR practice which enabled them to remember things they had long forgotten.

Some facilities and units had a functional monitoring team that audited midwives" delivery records at regular intervals (3weeks – monthly). The midwives mentioned one of such monitoring and supervision that deals with labour and delivery at their hospital. This was done for all staff at the maternity/ labour ward, and was helpful, particularly, towards the care and prevention of birth asphyxia. Some participants explained as follows:

> *"Yes, we have what we call the PICCAM and that is "eee" instituted by the eastern region. It is known by the eastern region. What we do is that every 3 weeks we meet and then the asphyxiated cases we had we discuss "what went on?", "the people who were involved as that time" or "who were on duty at that time", will write a report on what happened then all of us we met plus the specialist we discuss what happen what should have been done right what we didn't do right then discuss"* ***(NARKIE)***

> *"sister you want them to come; the doctors and matron, you want them to come and say you "should have done this" "you should have done that" so everybody was on her toes because if you get an asphyxia patient they do like you strangled the baby inside the mother's womb oo!!!…the way they will be putting the questions so everybody was on her toes you don't want them to come and bombard you, you understand so it was even really helping us a lot because everybody was on her toes"*
>
> ***(OFOSUA)***

> *"But you know if there is no meeting or there is nothing of that sort then nothing gingers us. So, the meeting help us. The monthly meeting gingers us to monitor the patients well. Sometimes when you come to the ward, we may be many per a shift. Cases too may be there but we may not monitor them. We will just be sitting there using our phones and other things but when you know that there is PICCAM; that*

there will be a meeting. Whenever there is a mother lying down, you will have no option than to help the baby but when there is no meeting, we will be sitting there doing nothing..." ***(EWURAMA)***

The monitoring was done mostly by a team comprising of specialist doctors, head of nursing administration or representatives from nursing administration, and at times ward in-charges. It was however found that well-structured monitoring and supervision by superiors mostly concentrated on the midwives. In comparison to the midwives, most nurses confirmed that they did not have regular monitoring teams visit them. A few people mentioned that they did the monitoring within the ward by themselves and that they did not have a specific group of people who monitored the care of NR performance. Some of the NICU nurses shared the following.

"As I said they come around, but they are not active…as to when and how they come we do not have a timetable to monitor when so you will just be there and they will pass by once in a while to check but they are not all that active" ***(PEACE)***

"We are our own monitoring team ***(laughs)*** *…I have not really come across any of that…. i know there is, they might be but we are our own monitoring team "* ***(ROSELYN)***

"Okay it is not from the nursing administration but my ward…in the morning when we go to work. We make sure our resuscitation things are ready and available in case there's a baby who will need resuscitation, so it is our ward that does it" ***(ARIN)***

The study discovered that the majority of the participants preferred regular face-to-face interaction with superiors or NR trainers. They stated that such interactions encourage them to read and learn regularly. Some participants expressed the following points of view:

"*What I will add to it is that like as you have come you are asking us questions it helps us also to recall what we have learn from school and maybe from our workplace so we will be happy if you come often to interview us we will be glad. So that it will help us to also learn. Knowing that there will be some interviewers will come and*

maybe they will come and interview us it will help" ***(AYELEY)***

"*oooooooo……in fact with this interview if you have forgotten something this will ring a bell in your mind. This thing I have to go back and look for it, it is something that I have to go back and look out for it, something that I have to start learning so that I don't forget. So in case there is an emergency and you are the only one on duty you can do something. So it's cool"* ***(KEKELI)***

"It has helped me to remember some of the things; your interview has brought a lot of things back to me. The interview has brought back memories" ***(OFOSUA)***

The findings affirm the contribution that monitoring, supervision, and frequent interactions among management, senior and junior staff, helps to improve performance among nurses and midwives towards NR. It is therefore suggested that such evaluation processes should be well structured to include all staff involved in NR within the Ghanaian context.

4.8 Summary

This chapter provided an overview of the demographic characteristics of the participants. Four major themes emerged from the findings, with one emerging theme. According to the study's findings, knowledge and understanding, compassion, and a sense of responsibility promoted positive attitudes among nurses and midwives, whereas lack of interest in NR, unwillingness to learn new trends in NR, and over-reliance on old ways of performing NR were factors that contributed to negative attitudes of nurses and midwives toward NR.

Furthermore, the baby's condition and gestational age, as well as the nurse or midwife's preference for the mother over the new-born in critical moments, resulted in the nurse or midwife's mixed feelings toward NR.

However, it was also discovered that people of importance to the nurse or midwife, such as ward in-charges, senior colleagues, medical officers, and anaesthetists, had influence on the participants' behaviour towards NR. Also, other factors in the nurse or midwife's social

environment, such as ward traditions, culture, religion, family, and parents, also had a significant influence on the nurse or midwife's behaviour toward NR. Furthermore, the findings revealed that nurses and midwives were rarely adequately prepared for NR. It also demonstrated that participants understood the importance of teamwork during NR but rarely formed specific teams when on duty in anticipation of a possible resuscitation.

The findings also revealed that training influenced good practice and adherence to NR protocols per standard guidelines; however, most participants mentioned a lack of hands-on training due to the lack of manikins during resuscitation training. Also, most of the time, these trainings were held whenever new staff members were posted to the unit. The study also revealed a lack of understanding of some NR terms and technicalities.

Finally, the study findings revealed that factors like proximity between the NICU and the labour ward, good interpersonal relationships between the NICU nurses and the labour ward midwives, and the availability of resources had a significant impact on NR performance. Furthermore, the findings revealed that superiors' supervision and monitoring of nurses and midwives affected adherence to NR protocols. Individual face-to-face interaction with superiors, according to participants, allows for personal growth and understanding of NR.

The following chapter, on the other hand, provides a detailed discussion of the findings identified by comparing the relevant literature from other NR studies.

CHAPTER FIVE

DISCUSSIONS

This chapter discusses the study's major findings, contextualizing the empirical material (see Chapter 4) with existing literature (see Chapter 2) to generate a discussion and agenda for future research.

5.1 Attitude towards the Performance of New-born Resuscitation

According to the theory of reasoned action, attitude is a good predictor of behaviour. Our personal beliefs about the outcome of our actions, whether favourable or unfavourable and overall assessment of an action; influence our attitude toward behaviour, which can be positive, negative, or neutral. Having a good knowledge and understanding of NR, compassion for the new-born, and a sense of responsibility were discovered to have a very positive influence on the participants' behaviour toward NR during the study. These findings were as the result of participants mentioning having NR training at both the facility and unit levels during internal training and refresher programmes. The current study's participants indicated that NR training influenced and improved their overall attitude toward NR. Hence, they had a good understanding of NR irrespective of their educational level or professional status (nurse or midwife). The basic understanding of NR was well explained and articulated by almost all of them. Similar to findings from other studies conducted among nurses and midwives on NR; participants acknowledged improved knowledge after training (Bekele et al., 2021; Ezenduka et al., 2016; Olaniyi & Ncama, 2020; Sintayehu et al., 2020). On the contrary, a study by Alhassan et al. (2019) revealed that midwives had poor knowledge of NR and therefore had a poor attitude towards NR. Therefore, regular refresher courses for long-serving staff and more intense training for newly recruited staff should be encouraged to retain knowledge and skills.

Consistently almost all the participants expressed their fondness towards caring for the new-born. The ability to maintain and sustain the life of the new-born with breathing difficulty for the nurse or midwife at the NICU or labour ward is of very great importance; hence they have a high sense of responsibility to do whatever they can within their will to ensure the new-born survives. Similarly, findings from a study conducted by Lewis (2017) indicated, that health care providers felt the unbearable urge and responsibility to provide the maximum support to the new-born just to ensure they live and are well catered for. To sum this up, knowing the positive impact NR has on the outcomes for the new-born with breathing difficulties, influences the nurse or midwife positively to perform NR on the struggling infant. This generates a sense of fulfilment and satisfaction for the nurse or midwife.

In as much as most of the participants had a good attitude towards the performance of NR, a few expressed certain circumstances that give them mixed feelings towards NR. Whereas there is the eagerness on their part to perform NR, situations such as the condition of the new-born which included those with severe and gross malformations, as well as those born extremely premature, were mentioned as examples that generate mixed feeling attitudes towards the performance of NR. To some nurses and midwives, for a child to be a burden on their parents and the nation, they would not go all out to save them as they would if it was a normal-term baby. The socio-economical context of the country predisposes the new-born, with special needs to a lot of challenges due to lack of financial support and proper system in place to support the new-born with special needs and family. Therefore, it is difficult for individuals to manage and live with disabilities in the country, influencing some nurses and midwives to make certain decisions that ordinarily are against their professional ethics and principles. Hence more efforts should be geared towards supporting individuals and families with special needs to make life a bit comfortable for them, which may change the socio-economic narratives and perception towards children born with some form of disabilities and

NR among healthcare professionals (i.e., nurses and midwives) working in NICU. Elsewhere disabilities are not an issue due to systems that supports the child and family (Heys et al., 2020; Zuurmond et al., 2018).

Again, it was found in this study, that although many of the nurses and midwifes' denied that their religious and cultural backgrounds do not have any influence on their performances of NR, a few of the participants' decisions were influenced by their religious beliefs. They did indicate that their faith always influences them to either perform NR on a baby with a poor condition or gross deformities, as they believed saving lives is predominantly in the hands of the Lord. Others also believed the future of the new-born inspires them to either go the extra mile or not. A study conducted by Warrick et al. (2011), on the end-of-life decision-making by health providers revealed, that the religious belief of medical doctors impacted their decision to either continue with care or allow the infant to die the natural way. Also, Catholic doctors found the limitation of care as more appropriate whereas doctors of Jewish and Islam faith believed withdrawal of care is prohibited and believed in the natural way of allowing life to take its course. Similarly, to findings from the present study, the nurses and midwives believed doing their part and leaving the rest to God are the ultimate.

Within the cultural and traditional setting of most people within the Ghanaian context, the life of the mother is mostly valued than that of the new-born. It is however not surprising that most of the time a new-born is not considered a human being until after forty (40) days or in some cases even after the first birthday (van Gennep et al., 2013; Winch et al., 2005). It is believed that mothers when alive can always reproduce, hence, some midwives prefer saving the lives of the mother to that of the new-born. This leads to negative and preferential treatment when both lives needed to be saved. The life of the mother is always chosen over that of the new-born. This is similar to findings from the present study; when some midwives

revealed they will prefer to save the life of the mother instead of the new-born. Some even argued, that if the new-born is saved over the mother, poor treatments, and lack of attention from family members can affect the growth and development of the new-born, hence the mother should always be considered, as it is only the mother that can genuinely cater for her child effectively; something they believed no other individual can do. Perhaps consideration should be given to training programmes on professional ethics, decision making, and conduct of the nurse or midwife to help improve equity and equality when giving care, and not based crucial decisions on mere beliefs and assumptions.

Other factors that predominantly influenced NR performance negatively as outlined by participants included non-compliance of expectant mothers during labour, trust in old methods of performing NR, and over-reliance on learning from the field as compared to adhering to scientifically approved researched based-evidence practice. These behaviours lead to a negative attitude towards NR. There were reported cases of little trust in these protocols as compared to what they had learnt on the field from senior colleagues (Mileder et al., 2014; Zagd et al., 2013). Most of the participants' personal beliefs were embedded in the archaic ways of performing NR, even though they had the knowledge and knew of the required standard guidelines on NR. The findings showed that deep-rooted methods such as using methylated spirit, turning the new-born upside down, and slapping the back of the new-born work better during NR, therefore, some nurses and midwives are reluctant to change their behaviours to entirely following the steps outlined by evidence-based protocols.

In summary, the above findings touched on the factors that influence the attitude of the nurse or midwife to perform NR. It was identified that knowledge and understanding, compassion for the care of the new-born, and a sense of responsibility influenced performance positively. Furthermore cultural, religious, and other environmental factors such as learning from colleagues also influenced the performance of NR negatively with certain conditions of the

neonate such as congenital deformities and extreme prematurity made some nurses and midwives have mixed feelings towards NR performance. The next section is centred on how the social environment of the nurse or midwife influences their decision to perform NR in clinical settings.

5.2 Beliefs and Perceptions (Subjective Norms) about the Performance of Newborn Resuscitation

Our immediate environment influences our decision to perform an intended behaviour or not. According to the theory of reasoned action (see Chapter 2), the perceptions of the people of referents have a significant influence on behaviour. Similarly, the study's findings indicated that the social environment influences how the nurse or midwife perceives NR. The study found that the main referent groups for participants were ward in-charges, senior colleagues, doctors, and anaesthetists. Their values, norms, and attitudes serve as a point of reference for these individuals (Ajzen, 2014; Hale et al., 2002). This explains why the behaviours of ward in-charges and, in particular, senior colleagues on the ward have a significant influence on the behaviour of most junior staff. In the context of NR, the seniors were regarded as superior in terms of experience, skills, and knowledge.

Similarly, most participants confirmed aside from the formal knowledge they had on the management and prevention of birth asphyxia, informal learning has a significant influence on their skills and practise. In the same way, in a study conducted by Murilla et.al (2012), most of the participants confirmed they picked their skills and knowledge from senior colleagues and people they met already at the ward. This shows the influence the working environment has on the behaviour of individuals as discussed in section above. it is analogous to findings from a study conducted by Khriesat et al. (2017) and contrary to practices approved by the World Health Organisation, HBB and other NR protocols. Although nurses and midwives have knowledge on NR, they still hold on to these outmoded practises because

it has become the norm and hence seen as normal (Kassab et al., 2014; Murila et al., 2012). Indicating that the priority of the nurse or midwife is to ensure baby is alive, and that the mode or scheme within which the new-born came into being alive has never been a problem to them.

The overall assessment shows the working environment gives minimal room for the practice of what is good and appropriate according to standard protocols (Chinbuah et al., 2020; Muneer et al., 2019; Shikuku et al., 2018). Regular monitoring and supervision are thus recommended and holding people accountable for their actions or omissions within the Ghanaian context can instill a certain level of good practices among nurses and midwives. Furthermore, a more comprehensive prospective and retrospective study on the consequences of harmful practices during NR and the long-term effects on the new-born can be conducted within the Ghanaian healthcare setting to inform decision making and plans for teaching modules on NR can be conducted.

There is generally a high level of influence from peers (normative belief) which has a direct influence on behaviour (Agbenohevi, 2018; Fishbein & Ajzen, 2011). People of reference serve as good role models and can inspire positive behaviours among individuals towards neonatal care (Moshiro et al., 2018; Root et al., 2019). Findings from the present study indicated that the specialist nurses had good behaviour towards the adherence to NR. These individuals can serve as good referent groups for others within their immediate social environment, causing a positive change towards new-born care among colleagues. Consequently, allowing more individuals to specialise in paediatrics and neonatal nursing can promote a more adaptable environment for change and eventually positive behaviours towards NR. Again, there would be the need to promote skills and knowledge acquisition among nurses and midwives, as this can have a positive impact on others, especially the junior staff. It is, therefore, suggested for health policies that would institute the training of more

paediatric and neonatal nurses.

On the other hand, although most of the participants mentioned they had a safe working environment that supported the performance of NR, nevertheless, few participants cited some unwarranted behaviours of some medical doctors" such as shouting and querying the actions of the nurse or midwife especially during critical moments when they had to fall on them for support. This according to participants impacts negatively on the performance of, especially some junior and less experienced nurses and midwives towards NR. This is similar to studies where abysmal co-operation from medical doctors, doctors feel superior over other healthcare providers, due to the structure of the health sector, absolute disregard for the efforts and views of the nurse or midwife, poor communication between medical doctors and nurses/midwives, as well as poor support from the medical doctors when needed, has led to daring complications on both the mother and new-born (Kassab et al., 2014; Moshiro et al., 2018). These are instances that internal hospital policies could address.

According to the literature, the family has a tremendous influence on the performance of new-born resuscitation both directly and indirectly. The findings showed that family presence, especially from the mothers, pushes nursing staff to go the „extra mile" in trying to revive the new-born. This is consistent with findings from other studies conducted on the impact the family has on care during resuscitation and other emergencies (Fulbrook et al., 2007; McClement et al., 2009; Monks & Flynn, 2014; Walker & Gavin, 2019). This study found that family presence promotes the feeling of love and compassion amongst nurses and midwives, which motivates them to render the best care to the neonates, corresponding to findings from a study by Walker & Gavin (2019). In addition, the family "adds a face" to the client which encourages both the midwives and NICU staff intrinsically to perform better in caring for the new-born needing support with breathing. However, some of the participants were indifferent as the presence of the mother or family did not have any impact on their

practice. Most of these participants were either specialist nurses, individuals who had worked for three (3) years or more and were well experienced in NR.

Similarly, Dainty et al. (2021) and Mclean et al. (2016) discovered that experienced nurses and midwives with long service are more accepting of family presence during resuscitation, thus, these individuals generally had good control over managing parents, family, and performing NR. The findings, however, revealed that junior and inexperienced nurses and midwives were concerned about family distractions and interferences, abusive language, and hysterical behaviour during NR. These have a negative impact on the nurse/ midwife's ability to meet the "golden minute," preventing new-born parents and family from witnessing NR.

Although, several studies have ruled out the impact family presence have on the quality of care given during emergencies, others, however, argues that the family presence does not necessarily have any impact on the outcome of the resuscitation, but it rather has some negative implications on the ability of the nurse or midwife to carry out certain skills particular among new and inexperienced staff (Barreto et al., 2019; Dainty et al., 2021; Fulbrook et al., 2007; McClement et al., 2009; Walker & Gavin, 2019). It is therefore suggested that because experience and knowledge improve confidence, it is necessary to create more awareness on family presence during resuscitation among nurses and midwives in the country through education (Gutysz-Wojnicka et al., 2018; McClement et al., 2009). Family-centred care during NR can be factored into NR training as a major component to increase health workers' understanding and knowledge (Barreto et al., 2019; Gutysz-Wojnicka et al., 2018; McClement et al., 2009; Mclean et al., 2016; Twibell et al., 2018).

Technological advancements in sustaining life for children with serious health conditions have generated difficulties in decision-making for parents and health care professionals (HCPs). As a result, parents depend on HCPs to understand the choices they make,

nevertheless, several families similarly trust non-medical means of support, as religion and spirituality (Wiener et al., 2013; Xafis et al., 2015). Nurses and midwives in this study reported some instances, where families decided against NR based on their religious beliefs. Therefore, out of fear of being attacked or labelled, most nurses and midwives are reluctant to work on new-borns whose parents' refused resuscitation based on their religious stands. Similarly, in a study by Superdock et al. (2018), even though HCPs embraced some benefits of parental religion and spirituality, they were frustrated when parents applied religion and spirituality to decision-making in ostensibly conflicting or uncertain circumstances. However, parental perceived expressions of religion and spirituality lacking clarity, in context of NR, may not necessarily suggest dishonesty or failure to realize the urgency of the child's health condition. The seeming ambiguity of some belief practices creates options that assist families to endure horrendous circumstances, during which they adapt to new, unwelcome experiences. In practice, HCPs can discuss the objectives of parenting - considering faith. As seen earlier, benevolent, and competent handling of families, may well influence support coping systems, while utilising policies from within the family's perspective to assist them in overcoming the challenging experiences.

In summary, the ward in-charge, senior colleagues, medical officers, mothers, and the family were identified as individuals and groups that had impacted the performance of NR among nurses and midwives. Creating a safe working environment and proper training on how to manage the family during NR is quite essential in improving positive behaviours among nurses and midwives. The next section is a discussion on the behavioural intentions of the nurse or midwife towards NR.

5.3 Behavioural Intention towards New-born Resuscitation

According to the theory of reasoned action, there is an intention before the actual behaviour is performed; these intentions are influenced by our attitudes, beliefs, and perception (see

Chapter 2). This enables us to adequately prepare for an action or not. Participants in the study mentioned monitoring of the mother and foetus, equipment preparation, and supportive staff as essential factors needed to meet the timely intervention of NR. According to NR protocols, preparation for labour and delivery is just as important as performing NR on a new-born with breathing difficulties (Chinbuah et al., 2020; Moshiro et al., 2018).

Therefore, regular monitoring of foetal heart rate and descent via vaginal examination and the use of patograph to monitor the progress of labour is essential for the early detection of the new-born with breathing difficulties. However, this was not demonstrated by the majority of the participants particularly the midwives. These findings are similar to other studies on the pre-assessment of the mother and baby before labour and delivery towards the anticipation and prompt management of the asphyxiated baby or those that may come out in some form of breathing difficulties (Arlington et al., 2017; Chikuse et al., 2012; Chinbuah et al., 2020; Moshiro et al., 2018; Murila et al., 2012b; Olaniyi & Ncama, 2020; Shikuku et al., 2018). Again, this study revealed that the midwives were more concerned about the mother as compared to their colleague nurses whose general assessment and monitoring dwelled on both the mother and foetus.

Most of the participants used expressions such as “not breathing”, “no chest movements”, “change in skin colour” and “blue skin” to describe the neonate that needs resuscitation. However, these are signs that show that the neonate is already asphyxiated and needed support with breathing; indicating the negative impacts poor monitoring has on new- born outcomes. This finding is similar to a study conducted by Moshiro et al. (2018). Therefore, the researcher suggests the need for more refresher courses for midwives and nurses who work within the birth setting on patograph and the significant impact it has on the prevention of birth asphyxia and other intrapartum complications.

The study further showed many of the participants used the physical appearance of the new-born to anticipate the need for resuscitation among the new-borns immediately after birth with only a few using both vital signs in addition to physical appearance as a tool to confirm the need for NR. Surprisingly none of the participants mentioned Apgar score using Virginia Apgar Scoring charts, a universally approved standard scale used to assess babies immediately after both mostly between the first and fifth minute of life. A technique used on daily basis at the various birth setting within most hospitals in Ghana demonstrating poor assessment skills by participants. Corresponding to findings from a study by Alhassan et al (2019) which showed midwives demonstrated poor knowledge on the immediate assessment and evaluation of the new-borns after birth. Again, another study by Chikuse et.al (2012) showed midwives use experience to assess babies after delivery instead of using the required assessment tool (APGAR), consistent with findings of the present study. Perhaps these signs are preferred to compare to a more objective way due to lack of basic and sophisticated equipment such as pulse oximeters and Doppler ultrasound machines that can give a more accurate result or the use of physical assessments are easier and give quicker results. In as much as training impacts care, the availability of the required equipment is quite essential towards the provision of care. The use of some basic equipment as mentioned above, for proper foetal heart rate monitoring, has a lot of benefits on the proper identification and prevention of issues related to difficulty in breathing immediately after birth (Umphrey et al., 2018). Meeting the golden minute is essential and all efforts must be in place always to ensure the asphyxiated baby is identified early, and the required intervention is rendered on time.

The study further showed knowledge on the tools used for NR was fair, however, checking for the functionality of the equipment was the least mentioned by participants. These can lead to delay in prompt care during NR. In several instances, participants mentioned nurses and

midwives are seen looking for equipment after the arrival of the asphyxiated baby whereas most of the time non-functionality of equipment is noticed just when they are about initiating care indicating the poor behaviours most people have towards care, preparation, and setting of tools within the labour wards and NICU. These are similar to findings from studies conducted by Asse et al. (2016), Jaffré and Lange (2021), and Olaniyi and Ncama (2020). A behaviour seen in most clinical settings within the country, the factors leading to these behaviours are quite comprehensive ranging from non-caring attitudes of some nurses and midwives, lack of knowledge on the importance of the availability of tools to prompt care and management, poor supervision to lack of logistics within the facility in addition to the shortage of staff. Although the outcomes of effective resuscitation depend on many factors such as the need for skillful use of resuscitation; preparation and checking of the functionality are essential towards the provision of prompt care for the new-born with breathing challenges (Moshiro et al., 2018).

In as much as proper monitoring and ensuring the availability of tools in good standing influences the performance of NR, getting a supportive staff is essential. However, findings from the study indicated these terrains were least acknowledged by almost all participants. Although the importance of teamwork during resuscitation was emphasised by participants, it was not mentioned as a major component for the preparation towards the performance of NR. The HBB protocol and other NR protocols emphasize the need to look for a helper before labour. However, this is not done in most settings within the country (Chinbuah et al., 2020). The study revealed most of the time further help is sorted for when the complication or challenge has occurred already. Perhaps this could be because the NICU and the Labour ward are near each other within the study areas, hence reaching out for help might not be considered as an issue to participants. On the other hand, timely intervention is crucial during NR, to get good outcomes with minimal to no future complications on the new-born (Kassab

et al., 2014; Shikuku et al., 2017). For that reason, there is the need to set NR teams with clear roles designated to everyone during every shift. This practice can be considered within our labour wards and NICUs nationwide to improve readiness towards NR.

Furthermore, the study found that in instances, where other team members may not have the requisite knowledge and skill needed for NR, the progress of the procedure, is affected, hence the need for regular training on NR to improve individual skills and knowledge. Furthermore, the training programme should add team resuscitation and skill mix during simulation training to create the affiliation towards teamwork (Umphrey et al., 2018).

In summary, readiness to perform NR is as essential as carrying out the actual intervention (NR), the study revealed the behaviour of participants towards NR is poor hence more education should be created to create awareness among health care providers. The next section deliberates on the factors that influence the performance of NR among nurses and midwives.

5.4 Performance of New-born Resuscitation (Behaviour)

The decision to perform NR may require conscientious effort on the part of the nurse or midwife. According to the theory of reasoned action, the performance of behaviour is under volitional control (see Chapter 2). The study showed the general knowledge of participants on the sequence involved in NR according to the required standard guideline is fair; however, specialist nurses had more knowledge and good practice on the steps compared to their colleague nurses and midwives. This finding harmonizes that of Ezenduka et al. (2016) which indicated paediatric nurses were more knowledgeable on the NR than their colleague nurses and midwives. This indicates that specialist training has a positive influence on practice. The researcher hence requests the need to train more specialist paediatric and neonatal nurses to aid in improving neonatal care nationwide. Again, as we have seen in this study, the

midwives‟ level of education did not reflect in their understanding and practice in context of NR. This finding is consistent with a study by Alhassan et.al (2019) and Bekele et.al (2021) which showed midwives had poor knowledge in NR. Consequently, a call for midwifery training schools in Ghana to incorporate NR as a core module, in an anticipation of reducing neonatal morbidity and mortality and eventually meeting the SDG 4.

Participants mentioned regular training improves knowledge and skills. However, the study revealed that most facilities do not provide regular training on NR. On the other hand, most of the facilities and units organised the training when the need arises, specifically when the department receives new staff. Indicating organisers of these training barely see the need to train old staff; this was expressed by a participant who happens to be a preceptor. Nevertheless, lack of regular training on NR makes one stale. The need to update all nurses and especially midwives is equally important as training only new staff. Similarly, the study revealed most of the participants could not mention the type of protocol used in training them with some failing to explain the basic terminologies and technicalities involved in NR. These could be attributed to the “I know it all” attitude experienced, and old staff had towards NR so the emphasis on training should be for all not for selected few. On the other hand, the study revealed lack of logistics and amenities, poor attendance by health workers, inability of individuals to engage in hands on practice during the simulation training as some major barriers to effective training on NR. Also, other ways of teaching such as videos, electronic games and online training can be initiated to make learning very easy (Arlington et al., 2017; Ghoman et al., 2020).

Furthermore, the study revealed, that the number of years of working in the NICU, enhanced skill development, which then had a major influence on the performance of NR among participants. Nurses who had stayed longer at the NICU had good knowledge and experience concerning the sequence of NR and steps in ventilation compared to their colleagues who had

worked for less than three (3) years within the same unit. This was attributed to the practice of long stay within the NICU among nurses, at the study sites, which is not common in other facilities within the country. Contrary to findings from a study by Agbenohevi (2018) which showed a departmental rotation of the midwives improved knowledge, care, and experience on NR. Nevertheless, facilities like NICU and labour wards, which require extra skills and knowledge, should consider this development (maintaining experienced individuals) during staff rotation in the context of Ghana.

The study further revealed that other factors such as participants bonding to mother and new-born had some effects on the behaviour of the nurse or midwives towards the performance of NR, specifically on when to stop the entire procedure. Although they understood the future complications associated with prolonged resuscitation beyond twenty (20) to thirty (30) minutes, the majority attested to going beyond this time limit with the intention that the new-born will survive. However, it is scientifically proven that prolonged resuscitation on the new-born has very daring consequences in the future (Harrington et al., 2007; Shikuku et al., 2017, 2018). Hence, NR simulation training programmes for nurses and midwives working in such specialty should incorporate reflective writing, debriefing, and other ways of coping, as much as involving the family in the decision-making process (Abdel Razeq et al., 2020; Lewis, 2017; Razeq et al., 2019; Umphrey et al., 2018). This will enable nurses and midwives to have a better professional way of handling issues that concerns end-of-life care for the neonate who does not do well after NR.

In summary specialist nurses had good knowledge and adherence to NR than their colleague nurses and midwives. Also, other factors such as experiences, religious beliefs, faith, and over-attachment to the mother or baby were seen as other areas that influence the actual performance of NR. For that reason, there is a need for facilities to provide psychological support and counsel for the nurses and midwives. This can improve proper adherence and

tolerance to the steps in NR. In the subsequent section, other factors that impacted the performance of NR in the clinical field is discussed.

5.5 Improving New-born Resuscitation Practice

The study also revealed other factors that influence NR practice among nurses and midwives, however these components emerged from the data during analyses and so are not consistent with the theory of reasoned action. According to Agbenohevi (2018), institutional factors had tremendous impact on NR performance. Similar to findings from the study, the working environment formed a major influence on the ability of the nurse or midwife to perform NR. The study indicated good communication among the NICU nurses and the midwives, proximity between the NICU, the labour ward and operating theatres, availability of resources, provision of posters on NR at vantage areas and availability of emergency drugs as factors that influence good and prompt care to the asphyxiated new-born. However, this is not the story for many hospitals in Ghana, most of the facilities across the nation lack NICU and even designated space within either the maternity or main paediatric ward for new-born cases (Amegan-Aho et al., 2018). There is total disregard for the management of new-born cases in most district hospitals leading to pressure on the few resources available at areas where there are NICUs (Amegan-Aho et al., 2018). This could also be the reason why the country has not been able to manage issues with new-born morbidity and mortality strongly as compared to other issues pertaining to the other each age group within child health. Henceforth, there should be a policy across board for every facility to create space for the care of the sick new-born, train nurses, midwives, and other health professionals. This will ensure prompt care to the new-born; delayed care has severe implications on the new-born.

To ensure nurses and midwives adhere to evidence-based clinical practice, supervision and monitoring is essential, and should play an integral part. It will ensure adherence and conformity to NR guidelines, in the context of this study. Participants confirmed regular

monitoring, supervision, auditing, and meeting with management, has helped to improve practice in their facilities. This is consistent with a study conducted by Root et al. (2019). Out of fear of being disgraced during meetings, individuals tried their possible best to adhere to the NR guidelines insisted on proper monitoring of both mother and foetus to avoid complications such as foetal distress from occurring. However, the study revealed most of the supervision and monitoring took place at the maternity/labour wards more than the NICUs. This could suggest that because achieving the "golden minute", which is emphasized by the HBB protocol mostly occurs within the labour room, hence, the strict supervision and auditing among midwives. Even though the midwives had a system of rigorous supervision, monitoring, and auditing, the study revealed that the nurses (general, paediatric, and neonatal), had good knowledge and a better attitude towards NR than the midwives. It is therefore suggested for various labour ward in-charges around the country, to increase the level of supervision, and liaise with the specialist nurses, to help in the monitoring and organising regular NR training programmes for the midwives. The implication is to help improve adherence to good practice, as lack of continuous monitoring and supervision could result in a decline in maintaining NR skills among all categories of staff involved (Jaffré & Lange, 2021; Ljungblad et al., 2019).

The study further revealed constant interaction between ward in-charges or preceptors and other staff members on an individual basis may help improve care. Yet this phenomenon is barely practised within the country. Most times emphasis is mostly placed on work, with no attention to the other personal challenges the nurse or midwife faces on daily basis in the clinical field (Jaffré & Lange, 2021). For that reason, institutions can inculcate debriefing and reflective practise as part of the daily routine for nurses and midwives. Especially for those who work within very stressful and demanding clinical areas, such as the labour wards and NICUs (Ljungblad et al., 2020). Reflective practice allows the nurse or midwife to analyse

situations critically and find evidence-based solution to those circumstances. It allows the nurse or midwife to create a deeper sense of self-awareness on such situations, allowing for personal growth and learning (Nicol & Dosser, 2016). Additionally, regular therapeutic interactions between superiors and subordinates on their weaknesses and strengths can help the nurse or midwife to share their difficulties, challenges, and other very personal issues that hinder their performance of NR, to influence positive behaviours towards NR.

5.6 Summary

In conclusion, NR is a vital procedure in new-born care. It needs a multifaceted approach to ensure the right care is rendered appropriately within the shortest possible time with minimal to no injury to the new-born. The theory of reasoned action was used to explore the factors that influence NR among nurses and midwives. The study revealed that many of the participants had a good attitude towards the performance of NR, but over-reliance on archaic and old ways of care as well as preferential treatment given to mothers over their new-born, as some factors that lead to the negative behaviour of some participants. The study also identified that religious beliefs do have some influence on NR performance by the nurse or midwife, furthermore, the condition of the new-born coupled with the gestational age of the new-born, made some participants have mixed feelings towards care.

The social environment was revealed to have some implications on the perception of the nurse or midwife towards NR. Similarly, the ward in-charges, doctors, anaesthetist, and the family were identified as people of referent who seem to influence the nurse or midwife. In addition, the findings of the study revealed the actual performance of NR is influenced by knowledge, experience, faith (religion), and compassion for the mother and neonate with breathing difficulties. On the other hand, factors such as lack of amenities, shortage of staff, lack of training, monitoring and supervision, work overload, and non-caring attitude of nurses and midwives were identified as areas that affect effective NR performance. The later

findings are not consistent with the theory of reasoned action.

CHAPTER 6

SUMMARY OF THE STUDY, IMPLICATIONS, LIMITATIONS, CONCLUSION AND RECOMMENDATIONS

This chapter presents a summary of the study, the implications of the findings, the limitations, and conclusions from the study as well recommendations based on the findings.

6.1 Summary of the Study

The nurse and the midwife form a major component towards the management and prevention of intrapartum complications including birth asphyxia. NR is a major procedure used to manage new-born with some form of breathing difficulties (birth asphyxia). The study, therefore, explored factors that influenced the nurse or midwife to perform NR in the clinical field using the Theory of Reasoned Action as the organizing framework. The objectives of the study were set based on the constructs of the theory. A descriptive qualitative design was used for the study within which a purposive sampling technique was used to select seventeen (17) nurses and midwives based on the inclusion criteria. The participants consisted of midwives, general nurses, paediatric and neonatal nurses. The study was conducted at the Regional Hospital, Koforidua, and the Nsawam Government Hospital. Data collection commenced after ethical clearance was obtained from the Ghana Health Service Ethical Review Board in Accra, Ghana. The interview guide was pretested at the Atua Government Hospital, Somanya after which the needed re-adjustment was made for the guide to fit into the context of the study. The consent of each of the participants was obtained before the data collection. Each interview lasted between 45-60 minutes. The interview was audiotaped after which verbatim transcription was done. Data collection was done concurrently with data analysis using thematic content analysis. Findings from the study showed that the positive attitudes of the nurses or midwives were influenced by their knowledge and understanding of

the importance of NR, and the high sense of professionalism they had towards saving the lives of new-born with breathing difficulties. Negative attitudes towards NR were influenced by the trust participants had in the archaic ways of performing NR, and the habitual misconception by some participants towards choosing the mother over the new-born during critical moments. However, the religious beliefs of participants did not have any significant effect on their attitude towards NR.

Furthermore, the study identified the people of referent to be the ward in-charges, senior colleagues, doctors, and anaesthetist, who had some level of influence in the performance of NR. In addition, the family was recognised as a major influence on participants' performance of NR; their presence and decisions had an impact on the nurse/midwife. Therefore, creating a safe working environment through education and training is quite essential to ensure a peaceful co-existence between the family and the nurse or midwife. Also, culture and religion were seen to have directly and indirectly impact on NR; both on the SBA and family perceptions and normative beliefs towards NR.

The constructs within the Theory of Reasoned Action were used in explaining the findings of the study. This is because a positive intention towards the performance of NR was influenced by a positive attitude. In addition, it was discovered that participants' skills and practices were influenced by what they learnt from their senior colleagues and the traditions they may have witnessed or seen practiced within the wards. Hence, formal education had little impact on their practice, whereas findings showed that the specialist nurses had good knowledge of NR, which was consistent with their positive behaviour towards NR, and adherence to NR protocols followed by the general nurses. Similarly, other factors such as experience and compassion were identified to have an impact on the performance of NR by the nurse or midwife. On the contrary, organizational factors such as lack of human and material resources, inadequate training, and poor supervision were identified as areas that had a

negative influence on the practice of NR.

6.2 Implications

The findings of the study had implications for nursing practice, nursing research, nursing education and nursing administration.

6.2.1 Implications for Nursing and Midwifery Practice

The study revealed that participants had a negative attitude towards the NR due to lack of trust in the NR protocols, over-reliance on the old ways of doing things, and influence from senior colleagues, leading to inappropriate assessment and monitoring of both mother and neonate, as well as poor adherence to NR protocols. Hence, much attention should be focused on organising frequent simulation training for nurses and midwives who work within the Labour wards and NICUs. More so the ward in-charges must be sensitized to promote good practices and adherence to NR protocols among individuals under their care. Additionally, other components such as the performance of daily drills using mannequins, teamwork, and provision of posters on NR at vantage points within the unit should be provided to promote positive behaviours and adherence to good practice.

Again, the impact of the main HBB training which was organised by the region in Koforidua had great influence on knowledge and skill for most nurses and midwives, coupled with the addition of subsequent refresher teachings and drills on NR within their various units and facilities. Therefore, indicating that regular prolonged hands-on training on NR helps in improving practice compared to relying only on the short refresher courses held within the facilities and units. This finding suggests that the Nurses and Midwifery Council (NMC), Non-Governmental Organisations, the Ghana Health Service, and other organisations, with child health at heart should organise intense hands-on workshops, at least bi-annually for nurses and midwives who work within the birth setting to improve on knowledge.

There should be a requirement by the Nurses and Midwives Council (NMC) on the need for midwives, general nurses who work within the birth settings as well as specialist nurses in paediatrics and neonatology to have CPD training on NR at least every year to help maintain knowledge, skill, and be updated with current trends in the care of the new-born with breathing difficulties. This will improve the quality of care and practice by the health care providers. This requirement can as well be a pre-requisite for promotion within the service.

The study also revealed family presence had a significant impact on the care given to the new-born with breathing difficulties. Proper management of the family during NR is very essential, hence, the need to inculcate it into the training programmes to improve understanding and confidence among the nurses and midwives. Additionally, the study discovered other factors that some cultural and religious beliefs have some impact on the care and decision making of both the SBA and the family on NR. Thus, the need to inculcate all these factors into the various training programmes on NR to ensure a holistic care and management of the new-born who needs resuscitation. Additionally, there should be institutional policies on how to handle the family during critical and emergencies to create an innocuous atmosphere.

6.2.2 Implications for Nursing and Midwifery Research

Findings of the study have opened ways for future research to explore how the professional ethics of the nurse/midwife can affect the performance of NR. Future studies can also involve other health care providers like doctors and anaesthetists to have a broader view and understanding of the various factors that influence the performance of NR by the other health care team members. Furthermore, prospective studies can also be conducted among traditional birth attendants (TBA), nurses, and midwives within the rural setting to explore the factors that influence NR within their setting. Likewise, an observational study can also

be conducted to give direct and more intimate views on what influences the practice of NR among health care providers and other skilled birth attendants including TBAs.

6.2.3 Implication for Nursing and Midwifery Education

Education and training are essential in the creation of positive behaviours. The need to start the training at an even earlier state is quite essential if we want to see a behaviour change. The study identifies a gap in knowledge between the nurses and midwives. Hence, NR should be considered as a collective responsibility of all stakeholders notably the Ministry of Health, Nurses and Midwifery Council, Ghana, Ghana College of Nurses and Midwifery, management of all training and health institutions, the qualified nurse/midwife, paediatric and neonatal nurse. Appropriate strategies should be encouraged to promote adherence to NR protocol and practice. More so, health tutors within the various institutions should be encouraged to use current trends in training student nurses and midwives at the diploma, post-basic, and degree levels. Additionally, the use of modern approaches such as social media platforms and electronic games to make the learning process more friendly and attractive to the young and upcoming nurses and midwives is quite essential. Persistently, results from the study exhibited most nurses and midwives perceived the standard protocols on NR as not applicable to settings within the Ghanaian context and a bit sophisticated. Other findings also indicated that participants had good knowledge, but this was not reflected in their practice. There is however the need for health tutors to make NR more practical, even at the training level whiles in school to create a synergy between knowledge, skill, and practice among student nurses and midwives. Again, there is the need to disabuse the minds of student nurses and midwives on the harmful effect the archaic practice has on the new-born and should be emphasised during teaching, using scientific studies to create positive attitudes among the young and learning nurses and midwives right from the beginning of their career. NR is inevitable, so creating a positive attitude among the future generation is quite essential if we

want to see a change within our clinical settings.

The study also revealed referents others have an influence on other colleagues within the clinical field. The need to allow the training of more paediatric and neonatal nurses is quite essential. Consistently, the findings from the study indicated that the specialist nurses had good knowledge, good attitude, and better intentions towards NR compared to their colleague general nurses and midwives. This shows that training more specialist nurses will help create a more nurturing, adaptive, and acceptable environment towards good practices based on scientific studies.

6.2.4 Implications for Nursing and Midwifery Administration

The study identified regular monitoring and supervision by management, particularly, the head of nursing as a major component that can improve adherence to good NR practice among nurses and midwives. Therefore, the need for the nursing administration within the clinical field to be highly involved in the monitoring and supervision of NR is greatly recommended. There is the need for all facilities to have a 'Neonatal R team' that sees to the day-to-day management and prevention of intrapartum complications. More so, findings from the study indicated that regular auditing, monitoring, and supervision by the management team had a massive influence on the care rendered by the nurse and the midwives during NR, prevention of intrapartum complications, and improved adherence to NR protocols. The team members, if possible, should be individuals who have great interest and knowledge in maternal and child health.

6.3 Limitations

The study was conducted in the Southern part of the country. The participants in the study were all females and Christians. A study can be conducted in a predominantly Islamic community using Muslims to check for the diverse views they may have, since culture and religion can have influence on behaviour. Male nurses' opinions on what influence their

performance of NR can also be looked at in future studies.

6.4 Conclusion

The study explored the factors that influence NR among nurses and midwives in the Eastern Region of Ghana, using the Theory of Reasoned Action as the organizing framework. The performance of NR was influenced by the positive and negative attitudes towards NR by the nurse or midwife. Findings showed that good knowledge and professionalism influenced positive attitudes, whereas over-reliance on old methods and preferential treatment of choosing the mother over the neonate during critical situations stirred negative attitudes towards NR by the nurse or midwife. Furthermore, the study revealed ward in-charges, doctors, and anaesthetists as people of referents whose behaviours, actions, and support had a great influence on the performance of NR. Even though many of the participants had good knowledge of NR, it did not reflect in their assessment of the mother and new-born, as well as the general behaviours towards the NR protocols and practice. Deducing from the constraints to the effective performance of NR, all stakeholders involved must find a prudent way of providing the needed equipment, logistics, material, and human resources needed to impact care and practice positively.

6.5 Recommendations

Based on the findings of the study, the following recommendations are made to the Ministry of Health, Regional Hospital, Koforidua, and Nsawam Government Hospital.

6.5.1 Ministry of Health (MOH)

The MOH should:

1. Ensure the training of more specialist nurses in paediatric and neonatal nursing. At least every facility within the Eastern Region should have a nurse or midwife trained in these areas to improve neonatal outcomes.

2. Ensure that the Regional Health Directorate makes it a policy for all hospitals under their jurisdiction to form a proper and functioning monitoring and supervision team on NR who will be accountable to the regional health director.

3. Ensure the availability of health tutors specialised in either paediatrics or neonatal nursing in our various nursing and midwifery training institutions.

4. Support health facilities with the recommended human resources, logistics, and materials needed to improve care and practice.

5. Should make a mandatory decree for every nurse or midwife who works within the birth setting to have CPD workshops and seminars on NR at least once every year. This should include health tutors who teach midwifery and paediatric nursing within the various nursing and midwifery training institutions.

6.5.2 The Regional Hospital - Koforidua and Nsawam Government Hospital

The above-mentioned institutions should:

1. Organise regular in-house refresher simulation training on NR for all health care providers who work within the birth setting of the facility, at least every quarterly.

2. Expand the NICU at the Nsawam Government Hospital and provide a standard resuscitation area for both facilities especially within the NICUs.

3. Ensure the provision of equipment needed for the performance of NR. Tools such as "neonatalia" (mannequins) needed for simulation training of health providers should be made available.

4. Recommend more nurses and midwives to train in neonatal and paediatric nursing.

5. Ensure the formation of a proper NR team within the facility who will be available at

the labour ward during each shift.

6. Insist on the regular drills using mannequins by nurses and midwives within the NICU and labour. This should be mandatory for all staff within those units and should be used to appraise them.

7. Promote regular monitoring, supervision, debriefing, and psychological support for nurses and midwives who work within the labour wards and NICs. The monitoring should be individuals well versed in maternal and new-born care. The nurse manager should be an automatic member of the team.

REFFERENCES

Abdel Razeq, N. M., Alduraidi, H., Halasa, S., & Cuttini, M. (2020). Clinicians‟ Self-Reported Practices Related to End-of-Life Care for Infants in NICUs in Jordan. *JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *49*(1), 78–90. https://doi.org/10.1016/J.JOGN.2019.11.005

Abdul-Mumin, A., Cotache-Condor, C., Owusu, S. A., Mahama, H., & Smith, E. R. (2021). Timing and causes of neonatal mortality in Tamale Teaching Hospital, Ghana: A retrospective study. *PLOS ONE*, *16*(1), e0245065. https://doi.org/10.1371/JOURNAL.PONE.0245065

Agbenohevi, U. D. (2018). *Experiences of Midwives in Neonatal Resuscitation within the Immediate Postnatal Period at the 37 Military Hospital, Accra* (Doctoral dissertation, University of Ghana).

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2014). Prediction of Leisure Participation from Behavioral, Normative, and Control Beliefs: An Application of the Theory of Planned Behavior. *Taylor & Francis*, *13*(3), 185–204. https://doi.org/10.1080/01490409109513137

Alhassan, A., Fuseini, A.-G., Osman, W., & Basour Adam, A. (2019). Knowledge and Experience of Neonatal Resuscitation among Midwives in Tamale. *Nursing Research and Practice*, *2019*, 1–8. https://doi.org/10.1155/2019/3652608

Alomele, B. (2017) *Exploring the wellbeing of family caregivers of women with advanced breast cancer a study in the accra metropolis.* (Doctoral dissertation, University Of

Ghana). http://ugspace.ug.edu.gh

Amegan-Aho, K. H., Kuwornoo, P. A., Danyoh, B. R., Spector, J., & Owusu-Koranteng, J. (2018). Eastern Ghana‟s first neonatal intensive care unit: achievements and lessons learned at 6 months. *Pediatrics*, *142*(1), 135–135.

https://doi.org/10.1542/PEDS.142.1MA2.135

Anfara Jr, V. A., & Mertz, N. T. (Eds.). (2014). *Theoretical frameworks in qualitative research*. Sage publications.

Antonucci, R., Porcella, A., & Pilloni, M. D. (2014). Perinatal asphyxia in the term newborn. *Journal of Paediatric and Neonatal Individualized Medicine*, *3*(2), 1–14. http://www.www.in.jpnim.com/index.php/jpnim/article/view/030269

Appiah, S., Appiah, E. O., & Lamptey, V. N. (2021). Experiences and Motivations of Male Nurses in a Tertiary Hospital in Ghana. *SAGE Open Nursing*, *7*, 23779608211044598.

Arlington, L., Kairuki, allan kaijunga, Isanguia, kahabi g., Meda, robson a., Thomas, E., Temu, A., Mponzi, V., Bishanga, D., Msemo, G., Azayo, M., & Nelson, B. D. (2017). Implementation of "Helping Babies Breathe": A 3-Year Experience in Tanzania. *Pediatrics*, *139*(5). https://doi.org/10.1542/PEDS.2016-2132

Ashish, K. C., Lawn, J. E., Zhou, H., Ewald, U., Gurung, R., Gurung, A., Sunny, A. K., Day, L. T., & Singhal, N. (2020). Not Crying After Birth as a Predictor of Not Breathing. *Pediatrics*, *145*(6), 1–11. https://doi.org/10.1542/peds.2019-2719

Asse, J. G., Couitchere, K. V, Enoh, L., Azagoh, J. R., Attebi, K. R., & Oulai, J.-J. (2016). Knowledge and Practices of Neonatal Resuscitation by Health Providers in Côte d‟Ivoire. *Open Journal of Pediatrics*, *7*, 149–155.

https://doi.org/10.4236/ojped.2017.73018

Avoka, J. A., Adanu, R. M., Wombeogo, M., Seidu, I., & Dun-Dery, E. J. (2018). Maternal and neonatal characteristics that influence very early neonatal mortality in the Eastern Regional Hospital of Ghana, Koforidua: A retrospective review. *BMC Research Notes*, *11*(91), 1–5. https://doi.org/10.1186/s13104-018-3196-x

Bailey, P. E., Andualem, W., Brun, M., Freedman, L., Gbangbade, S., Kante, M., Keyes, E., Libamba, E., Moran, A. C., Mouniri, H., el Joud, D. O., & Singh, K. (2017). Institutional maternal and perinatal deaths: A review of 40 low- and middle-income countries. *BMC Pregnancy and Childbirth*, *17*(1). https://doi.org/10.1186/s12884-017-1479-1

Bang, A., Bellad, R., Gisore, P., Hibberd, P., Patel, A., Goudar, S., Esamai, F., Goco, N., Meleth, S., Derman, R. J., Liechty, E. A., McClure, E., Carlo, W. A., & Wright, L. L. (2014). Implementation and evaluation of the Helping Babies Breathe curriculum in three resource limited settings: Does Helping Babies Breathe save lives? A study protocol. *BMC Pregnancy and Childbirth*, *14*(1), 1–6. https://doi.org/10.1186/1471-2393-14-116

Barreto, M. da S., Peruzzo, H. E., Garcia-Vivar, C., & Marcon, S. S. (2019). Family presence during cardiopulmonary resuscitation and invasive procedures: a meta-synthesis. *Revista Da Escola de Enfermagem Da USP*, *53*, 1–13. https://doi.org/10.1590/S1980-220X2018001303435

Barrett, D., & Twycross, A. (2018). Data collection in qualitative research. *Evid Based Nursing*, *21*(3), 63–64. https://doi.org/10.1136/eb-2018-102939

Bekele, F. A., Assimamaw, N. T., & Ali, M. S. (2021). Knowledge and associated factors towards neonatal resuscitation among nurses and midwives at the University of

Gondar Comprehensive Specialized Hospital, Northwest Ethiopia. *International Journal of Africa Nursing Sciences*, *15*, 100365.

https://doi.org/10.1016/J.IJANS.2021.100365

Bellieni, C. V., & Buonocore, G. (2009). Flaws in the assessment of the best interests of the newborn. *Acta paediatrica*, *98*(4), 613-617.

Bellieni, C. V., & Buonocore, G. (2014). Assessment of student‟s knowledge on neonatal resuscitation. *Journal of Biomedical and Pharmaceutical Research*, *3*(2), 67–71. https://doi.org/https://doi.org/10.1111/j.1651-2227.2008.01185.x

Berger, R. (2015). Now I see it, now I don‟t: researcher‟s position and reflexivity in qualitative research. *Qualitative Research*, *15*(2), 219–234.

https://doi.org/10.1177/1468794112468475

Boafo, I. M., Hancock, P., & Gringart, E. (2016). Sources, incidence and effects of non-physical workplace violence against nurses in Ghana. *Nursing Open*, *3*(2), 99–109. https://doi.org/10.1002/NOP2.43

Braga, M. S., Kabbur, P., Alur, P., Goodstein, M. H., Roberts, K. D., Satrom, K., Shivananda, S., Goswami, I., Pappagallo, M., Briere, C. E., & Suresh, G. (2015). Current practice of neonatal resuscitation documentation in North America: A multicenter retrospective chart review. *BMC Pediatrics*, *15*(1). https://doi.org/10.1186/s12887-015-0503-8

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Burkitt, I. (2010). Dialogues with self and others: Communication, miscommunication, and the dialogical unconscious. *Journals.Sagepub.Com*, *20*(3), 305–321. https://doi.org/10.1177/0959354310362826

Burkitt, I. (2012). Emotional reflexivity: Feeling, emotion and imagination in reflexive dialogues. *Journals.Sagepub.Com*, *46*(3), 458–472. https://doi.org/10.1177/0038038511422587

Chen, M., Wang, Y., Li, X., Hou, L., Wang, Y., Liu, J., & Han, F. (2017). Public Knowledge and Attitudes towards Bystander Cardiopulmonary Resuscitation in China. *Hindawi*, *2017*, 1–8. https://doi.org/10.1155/2017/3250485

Chikuse, B., Chirwa, E., Maluwa, A., Malata, A., & Odland, J. (2012). Midwives" adherence to guidelines on the management of birth asphyxia in Malawi. *Open Journal of Nursing*, *02*(04), 351–357. https://doi.org/10.4236/ojn.2012.24052

Chinbuah, M. A., Taylor, M., Serpa, M., Mazia, G., Cofie, P. K., Kwarah, W., Dawson, S., Nelson, B. D., & Engmann, C. (2020). Scaling up Ghana"s national newborn care initiative: integrating "helping babies breathe" (HBB), "essential care for every baby" (ECEB), and newborn "infection prevention" (IP) trainings. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/S12913-020-05225-2

Clary-Murinda, V., & Pope, C. (2016). Integrative review of instruments to measure team performance during neonatal resuscitation simulations in the birthing room. *JOGNN*, *45*(5), 684–698. https://doi.org/https://doi.org/10.1016/j.jogn.2016.04.007

Clary-Muronda, V. (2018). Nurse perceptions of facilitators and barriers to effective delivery room neonatal resuscitations: a comparison between Zimbabwean and US settings.

The Lancet Global Health, *6*, 1–3. https://doi.org/10.1016/s2214-109x(18)30162-1

Clifford, M., & Hunt, R. W. (2010). Neonatal resuscitation. *Elsevier*, *24*(3), 461–474. https://doi.org/10.1016/j.bpa.2010.02.011

Coffey, P., Kak, L., Narayanan, I., Lockwood, J. B., Singhal, N., Wall, S., Johnson, J., & Schoen, E. (2012). *Prepared for the United Nations Commission on Life-•Saving Commodities for Women and Children*.

Creswell, J. W., & Miller, D. L. (2000). Determining Validity in Qualitative Inquiry. *Theory Into Practice*, *39*(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2

Dadzie, D., Boadu, R. O., Engmann, C. M., & Twum-Danso, N. A. Y. (2021). Evaluation of neonatal mortality data completeness and accuracy in Ghana. *Plos one*, *16*(3), e0239049.

Dainty, K. N., Atkins, D. L., Breckwoldt, J., Maconochie, I., Schexnayder, S. M., Skrifvars, M. B., Tijssen, J., Wyllie, J., & Furuta, M. (2021). Family presence during resuscitation in paediatric and neonatal cardiac arrest: A systematic review. *Resuscitation*, *162*, 20–34. https://doi.org/10.1016/J.RESUSCITATION.2021.01.017

Darmstadt, G. L., Bhutta, Z. A., Cousens, S., Adam, T., Walker, N., & De Bernis, L. (2005). Evidence-based, cost-effective interventions: how many newborn babies can we save? *The Lancet*, *365*(9463), 977–988. https://doi.org/10.1016/S0140-6736(05)71088-6

Dijkers, M. (2015). What is a Scoping Review? *KT Update*, *4*(1), 1–5. http://ktdrr.org/products/update/v4n1]

Dillard, J. P., & Pfau, M. (2002). *The persuasion handbook: Developments in theory and practice*. Sage.

Dovillie, N. K. (2016). *Health Seeking Behaviour and Practices on Immunization for under Five Years Children after Ebola Virus Disease Outbreak. A Case Study in Margibi County-Liberia* (Doctoral dissertation, University of Ghana).

Ezenduka PO, Ndie EC, & Oburoh ET. (2016). Assessment of knowledge, attitude, and practice of nursing management of birth asphyxia in federal medical centre Asaba, Delta State-Nigeria. *Clinical Nursing Studies*, *4*(2), 21–27. https://doi.org/10.5430/cns.v4n2p21

Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Psychology Press

Fulbrook, P., Latour, J. M., & Albarran, J. W. (2007). Paediatric critical care nurses‟ attitudes and experiences of parental presence during cardiopulmonary resuscitation: A European survey. *International Journal of Nursing Studies*, *44*(7), 1238–1249. https://doi.org/10.1016/J.IJNURSTU.2006.05.006

Garrard, J. (2020). *Health sciences literature review made easy: The Matrix Method*, (Sixth Edition) Jones & Bartlett Learning, Sudbury, MA

Ghoman, S. K., Patel, S. D., Cutumisu, M., Von Hauff, P., Jeffery, T., Brown, M. R. G., & Schmölzer, G. M. (2020). Serious games, a game changer in teaching neonatal resuscitation? A review. *Archives of Disease in Childhood: Fetal and Neonatal Edition*, *105*(1), F98–F107. https://doi.org/10.1136/ARCHDISCHILD-2019-317011

Gomez, P. P., Nelson, A. R., Asiedu, A., Addo, E., Agbodza, D., Allen, C., Appiagyei, M., Bannerman, C., Darko, P., Duodu, J., Effah, F., & Tappis, H. (2018). Accelerating newborn survival in Ghana through a low-dose, high-frequency health worker training approach: A cluster randomized trial. *BMC Pregnancy and Childbirth*, *18*(1).

https://doi.org/10.1186/s12884-018-1705-5

Gutysz-Wojnicka, A., Ozga, D., Dyk, D., Mędrzycka-Dąbrowska, W., Wojtaszek, M., & Albarran, J. (2018). Family presence during resuscitation – The experiences and views of Polish nurses. *Intensive and Critical Care Nursing*, *46*, 44–50. https://doi.org/10.1016/J.ICCN.2018.02.002

Harrington, D. J., Redman, C. W., Moulden, M., & Greenwood, C. E. (2007). The long-term outcome in surviving infants with Apgar zero at 10 minutes: a systematic review of the literature and hospital-based cohort. *American Journal of Obstetrics and Gynecology*, *196*(5), 463.e1-463.e5. https://doi.org/10.1016/J.AJOG.2006.10.877

Harvey, M. E., & Pattison, H. M. (2013). The impact of a father"s presence during newborn resuscitation: a qualitative interview study with healthcare professionals. *BMJ Open*, *3*(3), 1–8. https://doi.org/10.1136/bmjopen-2013

Heys, M., Lakhanpaul, M., Allaham, S., Manikam, L., Owugha, J., Oulton, K., Morris, C., Martin, K. R., Tann, C., Martin, J., & Kuper, H. (2020). Community-based family and carer-support programmes for children with disabilities. *Paediatrics and Child Health*, *30*(5), 180–185. https://doi.org/10.1016/J.PAED.2020.02.004

Hole, M., Olmsted, K., Pediatrics, A. K.-… journal of, & 2012, U. (2012). A neonatal resuscitation curriculum in Malawi, Africa: did it change in-hospital mortality? *Hindawi.Com*,*2012*,1–8. http://downloads.hindawi.com/journals/ijped/2012/408689.pdf

Holmes, M. (2010). The emotionalization of reflexivity. *Journals.Sagepub.com*, *44*(1), 139–154. https://doi.org/10.1177/0038038509351616

Hug, L., Alexander, M., You, D., & Alkema, L. (2019). National, regional, and global levels

and trends in neonatal mortality between 1990 and 2017, with scenario-based projections to 2030: a systematic analysis. *The Lancet Global Health*, *7*(6), 710–720. https://doi.org/10.1016/S2214-109X(19)30163-9

Hunter, D., McCallum, J., & Howes, D. (2019). Defining exploratory-descriptive qualitative (EDQ) research and considering its application to healthcare. *Journal of Nursing and Health Care*, *4*(1).

http://eprints.gla.ac.uk/180272/http://eprints.gla.ac.uk

IGME, U. (2017). Levels and trends in child mortality. *United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME).*

Jackson, E. (2013). Choosing a Methodology: Philosophical Underpinning. *Practitioner Research in Higher Education Journal*, *7*(1), 49–62.

Jaffré, Y., & Lange, I. L. (2021). Being a midwife in West Africa: Between sensory experiences, moral standards, socio-technical violence and affective constraints. *Social Science & Medicine*, *276*, 113842.

https://doi.org/10.1016/J.SOCSCIMED.2021.113842

James, A., & Patel, V. (2014). Hypoxic ischaemic encephalopathy. *Paediatrics and Child Health (United Kingdom)*, *24*(9), 385–389. https://doi.org/10.1016/j.paed.2014.02.003

Janet, S., Carrara, V. I., Simpson, J. A., Thin, N. W. W., Say, W. W., Paw, N. T. M., Chotivanich, K., Turner, C., Crawley, J., & McGready, R. (2018). Early neonatal mortality and neurological outcomes of neonatal resuscitation in a resource-limited setting on the Thailand-Myanmar border: A descriptive study. *PLoS ONE*, *13*(1), 1–14. https://doi.org/10.1371/journal.pone.0190419

Kacen, L., & Chaitin, J. (2006). "The Times They are a Changing": Undertaking Qualitative Research in Ambiguous, Conflictual, and Changing Contexts. *The Qualitative Report*, *11*(2), 209–228.

https://www.academia.edu/download/33627970/the_times_they_are_a_changing_pdf_file.pdf

Kamath-Rayne, B. D., Griffin, J. B., Moran, K., Jones, B., Downs, A., McClure, E. M., Goldenberg, R. L., Rouse, D., & Jobe, A. H. (2015). Resuscitation and Obstetrical Care to Reduce Intrapartum-Related Neonatal Deaths: A MANDATE Study. *Maternal and Child Health Journal*, *19*(8), 1853–1863. https://doi.org/10.1007/s10995-015-1699-9

Kant, I. (1987). *Critique of judgment.* Hackett Publishing.

Kant, I. (2012) *Groundwork of the Metaphysics of Moral;* Cambridge University Press

Kant, I. (2015) *Critique of Practical Reason, 2nd ed.;* Cambridge University Press

Kassab, M., Alnuaimi, K., Mohammad, K., Creedy, D., & Hamadneh, S. (2014). Midwives" Experiences, Education, and Support Needs Regarding Basic Newborn Resuscitation in Jordan. *Clinical Nursing Research*, *25*(3), 291–309. https://doi.org/10.1177/1054773815619388

Kerlinger, F., Lee, H., & Bhanthumnavin, D. (2000). Foundations of behavioral research: The most sustainable popular textbook by Kerlinger & Lee (2000). *Journal of Social Development*, *13*(2), 131–144. https://so04.tci-thaijo.org/index.php/jsd/article/download/29035/24946

Khriesat, W., Kassab, M., Hamadneh, S., Mohammad, K., Hamadneh, J., & Khader, Y. S. (2017). Infant Resuscitation Practices of Midwives in a Developing Country. *Advances in NeonatalCare*, *17*(5),400–406. https://doi.org/10.1097/ANC.0000000000000418

Kim, H., Sefcik, J. S., & Bradway, C. (2017). Characteristics of Qualitative Descriptive Studies: A Systematic Review. *Research in Nursing & Health*, *40*(1), 23. https://doi.org/10.1002/NUR.21768

Kim, Y. (2016). Qualitative Social Work The Pilot Study in Qualitative Inquiry Identifying Issues and Learning Lessons for Culturally Competent Research. *JournalsPermissions.Nav*,*10*(2),190–206. https://doi.org/10.1177/1473325010362001

Kim, Y. M., Ansari, N., Kols, A., Tappis, H., Currie, S., Zainullah, P., Bailey, P., Semba, R., Sun, K., van Roosmalen, J., & Stekelenburg, J. (2013). Assessing the capacity for newborn resuscitation and factors associated with providers‟ knowledge and skills: A cross-sectional study in Afghanistan. *BMC Pediatrics*, *13*(1), 1–12. https://doi.org/10.1186/1471-2431-13-140

Kinney, M. V., Kerber, K. J., Black, R. E., Cohen, B., Nkrumah, F., Coovadia, H., Nampala, P. M., & Lawn, J. E. (2010). Sub-Saharan Africa‟s mothers, newborns, and children: Where and why do they die? *PLoS Medicine*, *7*(6), 1–9. https://doi.org/10.1371/JOURNAL.PMED.1000294

Kivunja, C. (2018). Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International Journal of Higher Education*, *7*(8), 44–53. https://doi.org/10.5430/ijhe.v7n6p44

Kortteisto, T., Kaila, M., Komulainen, J., Mäntyranta, T., & Rissanen, P. (2010). Healthcare professionals' intentions to use clinical guidelines: a survey using the theory of

planned behaviour. *Implementation Science, 5*(1), 1-10.

Lavin, T., Preen, D. B., & Newnham, E. A. (2017). Access to Obstetric Care and Children‟s Health, Growth and Cognitive Development in Vietnam: Evidence from Young Lives. *Maternal and Child Health Journal*, *21*(6), 1277–1287. https://doi.org/10.1007/s10995-016-2227-2

Lee, A. C., Cousens, S., Wall, S. N., Niermeyer, S., Darmstadt, G. L., Carlo, W. A., ... & Lawn, J. E. (2011). Neonatal resuscitation and immediate new-born assessment and stimulation for the prevention of neonatal deaths: a systematic review, meta-analysis and Delphi estimation of mortality effect. *BMC public health, 11*(3), 1-19.

Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2013). Recommendations for Designing and Reviewing Qualitative Research in Psychology: Promoting Methodological Integrity. *American Psychologiacl Association*, *4*(1), 2–22. https://doi.org/10.1037/qup0000082

Lewis, S. L. (2017). Exploring NICU Nurses‟ Affective Responses to End-of-Life Care. *Advances in Neonatal Care : Official Journal of the National Association of Neonatal Nurses*, *17*(2), 96–105. https://doi.org/10.1097/ANC.0000000000000355

Lincoln, Y. S. (1995). Emerging Criteria for Quality in Qualitative and Interpretive Research. *Qualitative Inquiry*, *1*(3), 275–289. https://doi.org/10.1177/107780049500100301

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation*, *1986*(30), 73–84. https://doi.org/10.1002/ev.1427

Linnard-Palmer, L., & Kools, S. (2016). Parents‟ Refusal of Medical Treatment for Cultural or Religious Beliefs: An Ethnographic Study of Health Care Professionals‟

Experiences: https://doi.org/10.1177/1043454204270263

Ljungblad, L. W., Sandvik, S. O., & Lyberg, A. (2019). The impact of skilled birth attendants trained on newborn resuscitation in Tanzania: A literature review. *International Journal of Africa Nursing Sciences*, *11*(2019), 1–6. https://doi.org/10.1016/j.ijans.2019.100168

Ljungblad, L. W., Skovdahl, K., McCormack, B., & Dahl, B. (2020). Balancing Life and Death During the Golden Minute – Midwives" Experiences of Performing Newborn Resuscitation. *Journal of Multidisciplinary Healthcare*, *13*, 943. https://doi.org/10.2147/JMDH.S268959

Mcadams, R. M., Mcpherson, R. J., Batra, M., & Gerelmaa, Z. (2013). Characterization of Health Care Provider Attitudes Toward Parental Involvement in Neonatal Resuscitation-Related Decision Making in Mongolia. *Article in Maternal and Child Health Journal*, *18*, 920–929. https://doi.org/10.1007/s10995-013-1319-5

McClement, S. E., Fallis, W. M., & Pereira, A. (2009). Family presence during resuscitation: Canadian critical care nurses" perspectives. *Journal of Nursing Scholarship*, *41*(3), 233–240. https://doi.org/10.1111/J.1547-5069.2009.01288.X

Mclean, J., Gill, F. J., & Shields, L. (2016). Family presence during resuscitation in a paediatric hospital: Health professionals" confidence and perceptions. *Journal of Clinical Nursing*, *25*(7–8), 1045–1052. https://doi.org/10.1111/jocn.13176

Mileder, L. P., Urlesberger, B., Schwindt, J., Simma, B., & Schmölzer, G. M. (2014). Compliance with Guidelines Recommending the Use of Simulation for Neonatal and Infant Resuscitation Training in Austria. *Klinische Padiatrie*, *226*(1), 24–28. https://doi.org/10.1055/s-0033-1361106

Miller, K. (2005). *Communications Theories: Perspectives, Processes* (second). McGraw Hill.

Mohajan, H. (2018). Munich Personal RePEc Archive Qualitative Research Methodology in Social Sciences and Related Subjects Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People*, *7*(85654), 1–5.

Monks, J., & Flynn, M. (2014). Care, compassion and competence in critical care: a qualitative exploration of nurses‟ experience of family witnessed resuscitation. *Intensive & Critical Care Nursing*, *30*(6), 353–359.

https://doi.org/10.1016/J.ICCN.2014.04.006

Moro, A. (2018). *Indigenous Breastfeeding Practices among Lactating Women in the Builsa North District*. http://ugspace.ug.edu.gh/handle/123456789/27261

Morris, J., Marzano, M., Dandy, N., & O‟Brien, L. (2012). Theories and models of behaviour and behaviour change. In *Forestry, sustainable behaviours and behaviour change: Theories*.

Moshiro, R., Ersdal, H. L., Mdoe, P., Kidanto, H. L., & Mbekenga, C. (2018). Factors affecting effective ventilation during newborn resuscitation: a qualitative study among midwives in rural Tanzania. *Global Health Action*, *11*(1), 1–11. https://doi.org/10.1080/16549716.2018.1423862

Mulupi, S., Kirigia, D., & Chuma, J. (2013). Community perceptions of health insurance and their preferred design features: Implications for the design of universal health coverage reforms in Kenya. *BMC Health Services Research*, *13*(1), 1–12. https://doi.org/10.1186/1472-6963-13-474

Muneer, A., Bari, A., Arslan, H., & Ali, A. S. (2019). Knowledge of clinicians/pediatricians about neonatal resuscitation in a tertiary care hospital. *Pakistan Journal of Medical Sciences*, *35*(3), 775–776. https://doi.org/10.12669/pjms.35.3.987

Murila, F., Obimbo, M. M., & Musoke, R. (2012). Assessment of knowledge on neonatal resuscitation amongst health care providers in Kenya. *Pan African Medical Journal*, *11*, 78. https://doi.org/10.11604/pamj.2012.11.78.1444

Mzurikwao, C. B. (2018). *Factors influencing knowledge and practice on helping babies breathe among skilled birth attendants in rural areas in Lake Zone in Tanzania* (Doctoral dissertation, The University of Dodoma).

Neergaard, M. A., Olesen, F., Andersen, R. S., & Sondergaard, J. (2009). Qualitative description-the poor cousin of health research? *BMC Medical Research Methodology*, *9*(1), 1–5. https://doi.org/10.1186/1471-2288-9-52/TABLES/3

Neuendorf, K. A. (2019). Content analysis and thematic analysis. In *Research methods for applied psychologists: Design, analysis and reporting* (pp. 211–223).

Nicol, J. S., & Dosser, I. (2016). Understanding reflective practice. *Nursing Standard*, *30*(36), 34–40. https://search.proquest.com/openview/97e5ef2277590e5454a8ed6e54f3bfe2/1?pq-origsite=gscholar&cbl=2042228

Nisson, C., & Earl, A. (2020). The Theories of Reasoned Action and Planned Behavior. *The Wiley Encyclopedia of Health Psychology*, *2*(1), 756–761. https://doi.org/https://doi.org/10.1002/9781119057840.ch129

Noor, T., Raza, N., & Pakistan, G. (2014). Neonatal resuscitation: a knowledge gap amongst

obstetrical trainees. A cross-sectional survey amongst medical graduates of Civil Hospital Karachi. *Ncbi.Nlm. Nih.Gov*, *64*(7), 856–859. https://www.ncbi.nlm.nih.gov/pubmed/25255607

Nyiringango, G. (2019). Assessing Changes in Knowledge about and Self-efficacy for Neonatal Resuscitation Among Rwandan Nurses and Midwives after a Mentorship Process.

Odjidja, E. N. (2017). Making every baby count: Reflection on the Helping Babies Breathe Program to reduce birth asphyxia in sub-Saharan Africa. *South African Journal on Child Health*, *11*(2), 61–63. https://doi.org/10.7196/SAJCH.2017.v11i2.1324

Olaniyi, A. A. O., & Ncama, B. P. (2020). Influence of Neonatal Resuscitation Training on Practice of Community Health Extension Workers in Managing Asphyxiated Newborns in Rural Nigeria: A Qualitative Study. *Global Pediatric Health*, *7*, 1–8. https://doi.org/10.1177/2333794X20938944

Opiyo, N., & English, M. (2006). Newborn resuscitation: defining best practice for low-income settings. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, *100*(10), 899–908. https://doi.org/10.1016/j.trstmh.2006.02.012

Opiyo, N., Were, F., Govedi, F., Fegan, G., Wasunna, A., & English, M. (2008). Effect of Newborn Resuscitation Training on Health Worker Practices in Pumwani Hospital, Kenya. *PLoS ONE*, *3*(2), 1–7. https://doi.org/10.1371/journal.pone.0001599

Padgett, D. K. (2008). Strategies for rigor. In *Qualitative Methods in Social Work Research* (2nd ed, pp. 179–198). SAGE Publications Inc. https://doi.org/https://dx.doi.org/10.4135/9781483384511.n9

Pammi, M., Dempsey, E. M., Ryan, C. A., & Barrington, K. J. (2016). Systematic Review and Meta-Analysis Newborn Resuscitation Training Programmes Reduce Early Neonatal Mortality. *Neonatology*, *110*(3), 210–224. https://doi.org/10.1159/000443875

Polit, D. F., & Beck, C. T. (2009). Essentials of nursing research: *Appraising evidence for nursing practice.* Lippincott Williams & Wilkins.

Polit, D., & Beck, C. (2020). Essentials of Nursing Research*: Appraising Evidence for Nursing Practice*. Lippincott Williams & Wilkins.

Rahman, S. (2017). The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language "Testing and Assessment" Research: A Literature Review. *Journal of Education and Learning*, *6*(1). https://doi.org/10.5539/jel.v6n1p102

Ramdhani, A., Ramdhani, M. A., & Amin, A. S. (2014). (PDF) Writing a Literature Review Research Paper: A step-by-step approach. *International Journal of Basic and Applied Science*, *03*(01), 47–56. https://www.researchgate.net/publication/311735510_Writing_a_Literature_Review_Research_Paper_A_step-by-step_approach

Razeq, N. M. A., Alduraidi, H., Halasa, S., & Cuttini, M. (2019). Sci-Hub | Clinicians" Self-Reported Practices Related to End-of-Life Care for Infants in NICUs in Jordan | 10.1016/j.jogn.2019.11.005. *JOGNN*, 1–13. https://doi.org/. https://doi.org/10.1016/j.jogn.2019.11.005

Reisman, J., Arlington, L., Jensen, L., Louis, H., Suarez-Rebling, D., & Nelson, B. D. (2016). Newborn resuscitation training in resource-limited settings: A systematic literature

review. *Pediatrics*, *138*(2), 1–17. https://doi.org/10.1542/peds.2015-4490

Root, L., Van Zanten, H. A., Den Boer, M. C., Foglia, E. E., Witlox, R. S., & Te Pas, A. B. (2019). Improving guideline compliance and documentation through auditing neonatal resuscitation. *Frontiers in pediatrics*, *7*, 294.

Sami, S., Kerber, K., Tomczyk, B., Amsalu, R., Jackson, D., Scudder, E., Dimiti, A., Meyers, J., Kenneth, K., Kenyi, S., Kennedy, C. E., Ackom, K., & Mullany, L. C. (2017). Reproductive Health Matters An international journal on sexual and reproductive health and rights "You have to take action": changing knowledge and attitudes towards newborn care practices during crisis in South Sudan) "You have to take action": changing. *Reproductive Health Matters*, *25*(51), 124–139. https://doi.org/10.1080/09688080.2017.1405677

Sandelowski, M. (2000). Focus on Research Methods Whatever Happened to Qualitative Description? *Research in Nursing & Health*, *23*, 334–340. https://doi.org/10.1002/1098-240X

Sandelowski, M. (2010). What"s in a name? Qualitative description revisited. *Research in Nursing & Health*, *33*(1), 77–84. https://doi.org/10.1002/NUR.20362

Schneider, K., Metze, B., Bührer, C., Cuttini, M., & Garten, L. (2019). End-of-Life Decisions 20 Years after EURONIC: Neonatologists" Self-Reported Practices, Attitudes, and Treatment Choices in Germany, Switzerland, and Austria. *Journal of Pediatrics*, *207*, 154–160. https://doi.org/10.1016/J.JPEDS.2018.12.064

Sepulveda, C., Habiyambere, V., Amandua, J., Borok, M., Kikule, E., Mudanga, B., Ngoma,

T., & Solomon, B. (2003). Quality care at the end of life in Africa. *British Medical Journal*, *327*(7408), 209–213. https://doi.org/10.1136/bmj.327.7408.209

Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, *3*(7), 749–752.

Shikuku, D. N., Milimo, B., Ayebare, E., Gisore, P., & Nalwadda, G. (2017). Quality of care during neonatal resuscitation in kakamega county general hospital, Kenya: A direct observation study. *BioMed Research International*, *2017*.

https://doi.org/10.1155/2017/2152487

Shikuku, D. N., Milimo, B., Ayebare, E., Gisore, P., & Nalwadda, G. (2018). Practice and outcomes of neonatal resuscitation for newborns with birth asphyxia at Kakamega County General Hospital, Kenya: A direct observation study. *BMC Pediatrics*, *18*(167), 1–11. https://doi.org/10.1186/s12887-018-1127-6

Silverman, D. (2013). *Doing qualitative research: A practical handbook*. https://books.google.com/books?hl=en&lr=&id=LySjM0tY-tEC&oi=fnd&pg=PP2&dq=Silverman,+D.+(2013)+Doing+qualitative+research.+4th+edn.+London:+SAGE+Publications.+&ots=kG35lHLIv1&sig=YaealcAFY-MT7fzRx8QGtk_oghU

Sim, J., Saunders, B., Waterfield, J., & Kingstone, T. (2018). Can sample size in qualitative research be determined a priori? *International Journal of Social Research Methodology*, *21*(5), 619–634. https://doi.org/https://doi.org/10.1080/13645579.2018.1454643

Singh, K., Brodish, P., & Suchindran, C. (2014). A Regional Multilevel Analysis: Can Skilled Birth Attendants Uniformly Decrease Neonatal Mortality? *Maternal and*

Child Health Journal, *18*(1), 242–249. https://doi.org/10.1007/S10995-013-1260-7

Sintayehu, Y., Desalew, A., Geda, B., Tiruye, G., Mezmur, H., Shiferaw, K., & Mulatu, T. (2020). Basic neonatal resuscitation skills of midwives and nurses in Eastern Ethiopia are not well retained: An observational study. *PLoS ONE*, *15*(7), 1–12. https://doi.org/10.1371/journal.pone.0236194

Sousa, S., & Mielke, J. G. (2015). Does Resuscitation Training Reduce Neonatal Deaths in Low-Resource Communities? A Systematic Review of the Literature. *Asia-Pacific Journal of Public Health*, *27*(7), 690–704. https://doi.org/10.1177/1010539515603447

Stockton, R. (1974). Book Reviews: Kerlinger, Fred N. Foundations of Behavioral Research. (2nd ed.) New York: Holt, Rinehart and Winston, 1973. 741 + xx pp. $13.95. *American Educational Research Journal*, *11*(3), 292–294. https://doi.org/10.3102/00028312011003292

Sultana, F. (2017). Reflexivity. *International Encyclopedia of Geography: People, the Earth, Environment and Technology*, 1–5. https://doi.org/10.1002/9781118786352.WBIEG0686

Superdock, A. K., Barfield, R. C., Brandon, D. H., & Docherty, S. L. (2018). Exploring the vagueness of Religion & Spirituality in complex pediatric decision-making: A qualitative study. *BMC Palliative Care*, *17*(1), 1–14. https://doi.org/10.1186/S12904-018-0360-Y/TABLES/7

Teh, Y. Y., & Lek, E. (2018). Culture and reflexivity: systemic journeys with a British Chinese family. *Journal of Family Therapy*, *40*(4), 520–536. https://doi.org/10.1111/1467-6427.12205

Thomas, J. (2015). parental refusal of medical treatment for child - Google Search. *South African Journal of Aneasthesia and Analgesia*, *21*(1), 34–36. https://doi.org/http://creativecommons.org/licenses/by-nc-nd/4.0 Parental

Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, *48*(4), 388–396. https://doi.org/10.1111/j.1365-2648.2004.03207.x

Turck, M. A. D. (2002). Persuasive effects of product warning labels. *The persuasion handbook: Developments in theory and practice*, 345.

Twibell, R., Siela, D., Riwitis, C., Neal, A., & Waters, N. (2018). A qualitative study of factors in nurses" and physicians" decision-making related to family presence during resuscitation. *Journal of Clinical Nursing*, *27*(1–2), e320–e334. https://doi.org/10.1111/JOCN.13948/FORMAT/PDF/OEBPS/PAGES/2.PAGE.XHTML

Umphrey, L., Breindahl, M., Brown, A., Didrik Saugstad, O., Thio, M., Trevisanuto, D., Roehr, C. C., & Blennow, M. (2018). When Helping Babies Breathe Is Not Enough: Designing a Novel, Mid-Level Neonatal Resuscitation Algorithm for Médecins Sans Frontières Field Teams Working in Low-Resource Hospital Settings Keywords Algorithm · Bag-and-mask ventilation · Flowchart · Guideli. *Research Briefings Neonatology*, *114*, 112–123. https://doi.org/10.1159/000486705

van Gennep, A., Vizedom, M. B., & Caffee, G. L. (2013). The rites of passage. In *The Rites of Passage*. Taylor and Francis. https://doi.org/10.4324/9781315017594/RITES-PASSAGE-ARNOLD-VAN-GENNEP

van Teijlingen, E., & Hundley, V. (2002). The importance of pilot studies. *Nursing Standard (Royal College of Nursing (Great Britain 1987)*, *16*(40), 33–36.

https://doi.org/10.7748/NS2002.06.16.40.33.C3214

Walker, W., & Gavin, C. (2019). Family presence during resuscitation: A narrative review of the practices and views of critical care nurses. *Intensive & Critical Care Nursing*, *53*, 15–22. https://doi.org/10.1016/J.ICCN.2019.04.007

Warrick, C., Perera, L., Murdoch, E., & Nicholl, R. M. (2011). Guidance for withdrawal and withholding of intensive care as part of neonatal end-of-life care. *British Medical Bulletin*, *98*(1), 99–113. https://doi.org/10.1093/BMB/LDR016

Whitehead, D., & Lopez, V. (2013). Sampling data and data collection in qualitative research (pp.124–140). https://www.academia.edu/25502575/Lopez_V_and_Whitehead_D_2013_Sampling_data_and_data_collection_in_qualitative_research_In_Nursing_and_Midwifery_Research_Methods_and_Appraisal_for_Evidence_Based_Practice_4th_edn_Schneider_Z_Whitehead_D_LoBiondo_Wood_G_an

Wiener, L., McConnell, D. G., Latella, L., & Ludi, E. (2013). Cultural and religious considerations in pediatric palliative care. *Palliative & Supportive Care*, *11*(1), 47–67. https://doi.org/10.1017/S1478951511001027

Willis, D. G., Sullivan-Bolyai, S., Knafl, K., & Cohen, M. Z. (2016). Distinguishing Features and Similarities Between Descriptive Phenomenological and Qualitative Description Research. *Western Journal of Nursing Research*, *38*(9), 1185–1204. https://doi.org/10.1177/0193945916645499

Willis, G. D., Sullivan-Bolyai, S., Knafi, K., & Cohen Z. Marlene. (2016, April 22). *Distinguishing Features and Similarities Between Descriptive Phenomenological and Qualitative Description Research*. Methodology Paper.

https://journals.sagepub.com/doi/pdf/10.1177/0193945916645499

Winch, P. J., Alam, M. A., Akther, A., Afroz, D., Ali, N. A., Ellis, A. A., Baqui, A. H., Darmstadt, G. L., El Arifeen, S., & Seraji, M. H. R. (2005). Local understandings of vulnerability and protection during the neonatal period in Sylhet district, Bangladesh: a qualitative study. *The Lancet*, *366*(9484), 478–485. https://doi.org/10.1016/S0140-6736(05)66836-5

World Health Organization. (2016). *World health statistics 2016: monitoring health for the SDGs sustainable development goals.* World Health Organization.

World Health Organization. (2014). Every newborn 1. *WHO Reproductive Health and Research*, 1–55.

www.who.int/about/licensing/copyright_form/en/index.html%5Cnhttp://apps.who.int/iris/handle/10665/127938

Xafis, V., Wilkinson, D., & Sullivan, J. (2015). What information do parents need when facing end-of-life decisions for their child? A meta-synthesis of parental feedback. *BMC Palliative Care*, *14*(1), 1–11. https://doi.org/10.1186/S12904-015-0024-0/FIGURES/1

Yami, A. (2015). *Using the theory of planned behaviour to explore the intentions of a multicultural nursing workforce to comply with policies and procedures in the Prince Sultan Military Medical City (PSMMC).*

Zagd, G., Mcadams, R. M., Mcpherson, R. J., & Batra, M. (2013). Characterization of Health Care Provider Attitudes Toward Parental Involvement in Neonatal Resuscitation-Related Decision Making in Mongolia. *Article in Maternal and Child Health Journal*, *18*, 920–929. https://doi.org/10.1007/s10995-013-1319-5

Zuurmond, M., O'Banion, D., Gladstone, M., Carsamar, S., Kerac, M., Baltussen, M., Tann, C. J., Nyante, G. G., & Polack, S. (2018). Evaluating the impact of a community- based parent training programme for children with cerebral palsy in Ghana. *PLoS ONE*, *13*(9), 1–17. https://doi.org/10.1371/JOURNAL.PONE.0202096

APPENDICE

Appendix A: Interview Guide

Topic: Factors Influencing New-Born Resuscitation Practices among Nurses and Midwives in the Eastern Region, Ghana

Date:

Location:

Interviewer: Yvonne Dorcas Berko (PI)

Introduction:

My name is Yvonne Dorcas Berko; I am a graduate nursing student from the School of Nursing, University of Ghana, Legon. I am carrying out a research and would like you to take part. The purpose of my study is to seek for information from nurses and midwives on the factors that influence their performance of new-born resuscitation at the clinical setting to help me understand what makes them either perform the skill appropriately, efficiently and effectively or vice versa. The findings of this study could assist the government and various international bodies review policies on new-born resuscitation as well as help us as health care givers improve on the quality of care we give to all new-borns who have some form of breathing difficulties immediately after birth. Thank you very much for your co-operation.

SECTION A: Background Information on Participant

a. How old are you?
b. What is your sex?
c. What is your religion?
d. What is your profession (general nurse, midwife, paediatric nurse, neonatal nurse)?
e. How many years have you been practicing?

f. What is your current rank in nursing or midwifery?

g. Which ward/department are you?

h. What is your highest level of education?

Section B: Knowledge on New-Born Resuscitation.

1. Who is more vulnerable the mother in labour or the new-born? Explain please……
2. What is your understanding of the term „New-born Resuscitation"?
3. What determines that a new-born will need support with breathing?
4. What do you know about the Golden Minute in new-born care resuscitation?
5. What are the basic items required for an effective basic new-born resuscitation?
6. What is skill mix in new-born resuscitation?
7. What is team resuscitation?

SECTION C: Practice of New-Born Resuscitation

1. How do you prepare for labour? **(Midwives only)**

2. How do you care for a new-born immediately after birth?

3. How do you handle a new-born with breathing difficulty immediately after birth?

4. How important is suctioning in new-born resuscitation? a. At what point in time do you suction a baby? b. When and where do you ventilate? c. At what point to you cut cord? d. At what point in time do you commence cardiac compression?

5. Gestational age of the new-born as well as babies with some form of congenital anomalies has been found to influence the nurse or midwife"s decision to initiate new-born resuscitation, how relatable is this perception in your facility or practice? Do your beliefs influence the decision? Explain please……

6. Kindly share some of your experiences with "team resuscitation" ……

7. How effective is skill mix during new-born resuscitation? Please explain……

8. What medications do you use in new-born resuscitation? What are some of the intravenous infusions used in your facility during new-born resuscitation? How available are they on daily basis?

9. What are the factors or motivators that make it easy for you to perform new-born resuscitation?

10. What are some of the factors or barriers that make it difficult for you to perform new-born resuscitation?

SECTION D: Attitude towards New-Born Resuscitation

1. What influences your decision to initiate or perform new-born resuscitation?
2. How do you feel when you perform new-born resuscitation?
3. What do you think are the advantages of performing new-born resuscitation?
4. What are the minuses (disadvantages) of performing new-born resuscitation in your context?

SECTION E: Subjective Norms on New-Born Resuscitation.

1. Who do you think would approve or support you if you perform new-born resuscitation according to the required standard guidelines?
2. Who do you think would disapprove or discourage you from performing new-born resuscitation according to the required standard guidelines?
3. How does the presence of your ward in-charge and colleagues at the ward influence your performance of new-born resuscitation?

4. How does the presence of other staff (anaesthetist, doctors) affect your performance of new-born resuscitation?
5. How does the presence of the mother and family members affect your performance of new-born resuscitation?
6. How do institutional factors such as proximity to the Neonatal Intensive Care Unit affect new-born resuscitation practices in your facility?
7. How do institutional policies on new-born resuscitation affect your performance of resuscitation on daily basis in your facility?
8. How do institutional monitoring and supervision affect the performance of new-born resuscitation in your family?

SECTION F: Behavioural Intention to Perform New-Born Resuscitation.

1. What are standard guidelines? Could you please mention a few of the Standard Practice Guidelines or Flowcharts that skilled birth attendants use during new-born resuscitation in your facility?
2. Do you have Standard Practice Guidelines/Flowcharts in your unit? Exactly where in your unit can this Flowchart be found?
3. In relation to these guidelines, what are some of the behaviours or responses nurses or midwives exhibit during new-born resuscitation?
4. What recommendations will you make regarding new-born resuscitation practices in your facility

Appendix B- Individual Consent Form

Participants Information Sheet

Title of Study: Factors influencing new-born resuscitation practices among nurses and midwives in the Eastern Region, Ghana

Invitation

This research is carried out by Berko Dorcas Yvonne, a graduate student at the University of Ghana School of Nursing and Midwifery. The project is part of her master"s thesis work to fulfil her requirement for the MPhil in Paediatric Nursing degree. A dissertation is a study on a particular area of interest to the researcher and of concern to human growth and existence, for example practices of new-born resuscitation among nurses and midwives. The information sheet describes a research being done in the Eastern Region of Ghana particular in two selected hospitals under the Ghana Health Service (Eastern Regional Hospital, Koforidua and Nsawam Government Hospital). The research will be conducted at the birth setting of the above mentioned facilities i.e. the labour ward, Neonatal Intensive Care Unit and the Operation Theatre where caesarean section is conducted.

Research studies enable us to know, understand and appreciate the behaviour of others; it helps us to find and improve on the performance of our everyday activities so that the best of quality of care can be given to our patients and their family as a whole. Research is purely voluntary, which means that the decision to be part of the study solely lies with the participant the study investigator will give you detailed information on the study and answer all questions and concerns that you may have before you make your decision.

What is the purpose of the study?

The purpose of the study is to explore the factors that influence the performance of new-born resuscitation among nurses and midwives. The study will ask about the knowledge, practice, attitude, subjective norms (beliefs and perceptions) as well as the behavioural intentions of nurses and midwives towards the performance of new-born resuscitation at the clinical settings

Why have I been invited to participate?

You have been invited to partake in the study because you are a nurse/midwife who cares for neonates on daily basis at your facility.

Do I have to take part?

The decision to be part of this very important study solely lies on you. If you voluntarily agree to be part of the study, the information sheet together with a consent form will be handed over and explained to you.

What is involved in the study and how long will I be involved in it?

The study will include 17 nurses and midwives who care for neonates with some form of breathing difficulties immediately after birth.

If you agree to be part of the study, you will be asked to;

- Participate in a one-on-one interview with the researcher to answer a number of questions on your day-to-day activities at the ward specifically with concerns on the care of neonates with breathing difficulties immediately after birth. The questions will cover areas related to your personal views on knowledge, practice and other valid concerns related to your attitude, beliefs and perceptions in relation to your performance of new-born resuscitation at the clinical setting on daily basis.

- The choice of the place for the interview solely lies on you. We can discuss the time and date most appropriate for you so the interview can be conducted at your convenience. Your comfort and privacy is of great concern to the researcher and that will be ensured throughout the interview. Anonymity and confidentiality will be highly maintained and your personal views and opinions will be the masterpiece to the study. Where you prefer a phone call or video call instead of a face-face interview; the researcher will absolutely do as such as your well-being is off prime concern to her.
- The interview process will be between a minimum of 45 minutes to a maximum of 1 hour and 15 minutes

What are the possible benefits of taking part?

Obviously participating in the study may not have a direct benefit to you as an individual but it will be added to well documented knowledge in the various ways that we as health care workers specifically nurses and midwives, can improve on the quality of care given to new-borns with breathing difficulties immediately after birth; to improve practice and ensure the best of care is rendered to these young ones.

What are some risks involved?

You may not have a very vivid answer to some of the questions but I assure you that this study is just to share information on what you know. All answers are readily acceptable; do not feel or be pushed to give only accurate answers. Feel free to share and kindly do not withhold any answers. You may experience some emotional discomfort during the interview as it pertains to your personal views on the issues being discussed. It is normal to have those emotions; brief moments will be given for you to go through that stage. However if you demand we skip certain questions because you do not feel comfortable about it, it will be

duly respected. There is a potential risk of confidentiality to ensure that it is decreased only authorised people will have access to your study information.

What Are My Rights As A Participant?

By signing this consent form, you have agreed to be part of the study. You are not giving up any your legal rights, neither, will this affect your license to practise as a nurse/midwife in your facility or any other hospital.

You may choose to withdraw from the study at any time without any sanctions, penalties or loss of benefits to your work as a professional nurse/midwife.

At any time even after the study you have the right to inform the researcher not to release a portion or all information given to a third party (other people, individuals, organisations or companies). With respect to this part of the clause; withdrawal of such nature should be in written form duly signed by the participant. You are assured that a decision to withdraw will not affect your salary or promotions as a health worker neither will this information be shared with any of your superiors at the work place and even beyond.

What Other Options Are There?

The decision to be part of the study exclusively lies on you. You decide to be part if you want t; you can also choose not to be part of the study if you are not comfortable with it. During the interview you can choose not to answer questions you are not at ease with, you also can decide to withdraw from the study at any time you wish to without any consequences

Will my taking part in this study be kept confidential?

If you sign this consent form you have given permission to the researcher to provide de-identified results of the study to the following notable people, agencies or organisations to review and use in this research study:

- Ghana Health Service Ethics Review Committee.
- University of Ghana Graduate School.
- University of Ghana School of Nursing and Midwifery.

The researcher will keep the records and the study information confidential and will only release the de-identified results to the above mentioned groups of people, agencies or organisations. None of your personal information or working credentials will be mentioned or released outside to any group of people, agencies or organisations. You will not be identified as an individual in any write-up or oral report to any third party. Information will be duly used for only research and academic purposes as duly explained earlier on by the researcher.

Will I Be Compensated For My Participation?

No, they will not be any form of payment or compensation for your participation.

What Do I Do If I Am Injured?

There is little to no risk in this study as it consists of one-on-one interview with the researcher which will be done either face-face, via phone or video call. There will be no intervention process such as drugs, treatment or device. It is purely naturalistic study where participants will not be required to perform new-born resuscitation on a baby with breathing difficulty immediately after birth.

What will happen to the results of the research study?

The result of the study will be reported in a thesis and submitted for approval for MPhil Degree to be awarded to the researcher. The results will also help inform policies on new-born resuscitation practices among nurses and midwives.

What is the cost and who is funding the research?

There is no cost for you as you will not be charged for participation. The researcher is the sole funder of the study.

Who has reviewed the study?

The Ghana Health Service Ethics Review Committee after thorough investigations and assessment have reviewed and given the ethical clearance in order to protect the rights of participants. Please contact the ERC administrator, Nana Abena Apatu on 0503539896 (during office hours) or by email ethics.research@ghsmail.org for any ethical issues concern of participants.

Contact for further information If you would like more information or would like to agree to be interviewed please contact Yvonne Dorcas Berko on 0503497124/ 0246332150 (during office hours) or by email dyberko01@st.ug.edu.gh

Consent Form for Participants

STUDY TITLE: Factors Influencing New-Born Resuscitation Practices among Nurses and Midwives in the Eastern Region, Ghana.

Participants' Statement

I acknowledge that I have read and have understood the purpose and contents of the study. The contents of the Participants" Information Sheet have been read and clearly explained to me in simple language as well as in words that I understand. All raised questions have been duly answered to me in a language I understand (English, Twi). I fully understand the contents of the study and any possible repercussions as well as my right to change my mind at any given time (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‟ Signature ……...OR Thumb Print……

Date:…….

Appendix C: Ethical Approval Letter

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

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

My Ref. GHS/RDD/ERC/Admin/App 21 280
Your Ref. No.

15th July, 2020

Yvonne Dorcas Berko
University of Ghana, Legon College of Health Sciences
School of Nursing And Midwifery
P. O. Box LG 43 Accra, Ghana

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

GHS-ERC Number	**GHS-ERC 050/03/21**
Project Titie	Factors Influencing Newborn Resuscitation among Nurses and Midwives in the Eastern Region of Ghana
Approval Date	15th July, 2021
Expiry Date	14th July, 2022
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of 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.
- 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

Appendix D: Introductory Letter

UNIVERSITY OF GHANA
SCHOOL OF NURSING AND MIDWIFERY

Ref. No.:.....ID: 10803972..... 25th March, 2021

The Chairperson.
Ethics Review Committee
Ghana Health Service
Accra.

Dear Sir/Madam,

LETTER OF INTRODUCTION – ETHICAL CLEARANCE

I write to introduce **Yvonne Dorcas Berko**, an MPhil. Paediatric Nursing student in the School of Nursing and Midwifery, University of Ghana, Legon.

The Scientific Review Committee of the School has approved the thesis topic: **"Factors Influencing New-Born Resuscitation Practices Among Nurses and Midwives in the Eastern Region, Ghana."**

As part of the School's requirement, the student is required to obtain ethical clearance before embarking on data collection.

I hope that the Committee will consider the proposal and grant her ethical clearance to enable her undertake the study.

Thank you.

Yours faithfully,

Charles A. Klutse
School Administrator

INTEGRI PROCEDAMUS
COLLEGE OF HEALTH SCIENCES
P. O. Box LG 43, Legon, Accra, Ghana.
• Telephone: (0) 303 970 801 / 0553 089 267 • Email: nursing@ug.edu.gh • Website: www.nursing.ug.edu.gh

Appendix E: Approval Letter from Regional Hospital, Koforidua

UNIVERSITY OF GHANA
SCHOOL OF NURSING AND MIDWIFERY

Ref. No.:.....

ID: 10803972

MEDICAL DIRECTOR RECEIVED 16 JUL 2021 1475 EASTERN REGIONAL HOSPITAL

29th March, 2021

The Medical Director
Eastern Regional Hospital
P. O. Box 201
Koforidua
Eastern Region

Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you **Yvonne Dorcas Berko**, an MPhil. Paediatric Nursing student at the School of Nursing and Midwifery, University of Ghana, Legon.

As part of the requirements of the MPhil. programme, the student is to undertake a research study and she intends to use your facility as the main study site for data collection.

The title of her research is **"Factors Influencing New-Born Resuscitation Practices Among Nurses and Midwives in the Eastern Region, Ghana."**

It will be appreciated if she is given the necessary assistance to collect data on her study.

Thank you.

Yours faithfully,

Dr. Lillian Akorfa Ohene
Supervisor

In-charges concerned (NICU, Labour, etc) (2)
Pls assist for the study to be carried out.
06/08/2021

After RT, To submit protocol
19/07/21

Kindly Contact the General Office (3) Head of Research Team: For your Student to submit research protocol. attention.
Thank You
26/07/2021

COLLEGE OF HEALTH SCIENCES

Appendix F: Approval Letter from Nsawam Government Hospital

UNIVERSITY OF GHANA
SCHOOL OF NURSING AND MIDWIFERY

GOVERNMENT HOSPITAL RECEIVED Date: 24/05/21 NSAWAM

Ref. No.: UG/10803972

29th March, 2021

The Medical Superintendent
Nsawam Government Hospital
Nsawam, Eastern Region.

Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you **Yvonne Dorcas Berko**, an MPhil. Paediatric Nursing student at the School of Nursing and Midwifery, University of Ghana, Legon.

As part of the requirements of the MPhil. programme, the student is to undertake a research study and she intends to use your facility as the main study site for data collection.

The title of her research is **"Factors Influencing New-Born Resuscitation Practices Among Nurses and Midwives in the Eastern Region, Ghana."**

It will be appreciated if she is given the necessary assistance to collect data on her study.

Thank you.

Yours faithfully,

Dr. Lillian Akorfa Ohene
Supervisor

(2) Hod ; PH Specialist
Pls kindly be notified
24/05/2021
(3) PH SPECIALIST
Plse for your kind attention & action.

26/05/21

COLLEGE OF HEALTH SCIENCES

Appendix G: Neonatal Mortality (ERHDS/DHIM, 2019)

	Institutional Neonatal Mortality					Asphyxia New-born Complications				
	2015	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
Eastern Regional Hospital	27.9	28.7	40.1	36.3	40.1	199	122	188	161	181

Source: ERHDS Statistical Department, 2019

Appendix H: Demographic Characteristics of Participants

Participants (pseudonyms)	Age (years)	Sex	Religion	Profession	Rank	Noof years	Department	Highest level of education	NR training	STG used
Arin	28	Female	Christian	Registered General nurse	SSN	4	NICU	Diploma in nursing	Yes	No idea
Peace	35	Female	Christian	Neonatal nurse	SSN	8	NICU	Associate course in Neonatal Nursing	Yes	HBB, other protocols on NR
Rose	32	Female	Christian	Registered General nurse	SSN	5	NICU	Diploma in general nursing	Yes	HBB
Ofosua	41	Female	Christian	Midwife	SSM	13 (6 for midwifery)	Maternity/labour ward	Post Basic in Midwifery	Yes	HBB
Kekeli	30	Female	Christian	Midwife	SSM	5	Maternity/Labour ward	Diploma in midwifery	Yes	HBB
Ewurama	30	Female	Christian	Midwife	SSM	4	Maternity/ labour ward	Diploma in midwifery	Yes	No idea
Ayeley	35	Female	Christian	Midwife	SSM	12 (5 for midwifery)	Maternity/ Labour ward	Post basic in midwifery	Yes	I don‟t remember

Aba	29	Female	Christian	General Nurse	SN	2	NICU	Diploma in general nursing	Yes	No idea
Rakia	36	Female	Christian	Midwife	MO	11	Mat/Labour	Degree in Midwifery	Yes	Couldn‟t state
Maria	27	Female	Christian	General nurse	SSN	2	NICU	Diploma in Gen Nursing		
Roselyn	31	Female	Christian	Paediatric nurse	NO	7 (3 at NICU)	NICU	Associate in paediatric nursing	Yes	HBB
Abiba	36	Female	Christian	Midwife	MO	10	Maternity/ labour ward	Degree in Mid.	Yes	HBB
Narkie	36	Female	Christian	Midwife	MO	10	Maternity/labour ward	Degree in Midwifery	Yes	HBB Other resuscitation protocols
Efe	41	Female	Christian	Neonatal Nurse Specialist	Nurse Specialist	17 (1 and Half at NICU)	NICU	Membership course	Yes	HBB Other protocols on NR for infants
Rhoda	29	Female	Christian	Midwife	SSM	3	Mat/Labour	Diploma in		No idea

								midwifery		
Angel	28	Female	Christian	Midwife	SSM	6	Labour	Dip in Mid	Yes	No idea
Princess	35	Female	Christian	General nurse	SSN	10 (4 and half at NICU)	NICU	Dip in Gen Nursing	Yes	

Source: Field Data, 2021

GHS: Ghana Health Service

HBB: Helping Baby Breathe

NO: Nursing Officer

NICU: Neonatal Intensive Care Unit

MEBCI: Making Every Baby Count Initiative

MO: Midwifery Officer

SN: Staff Nurse

SM: Staff Midwife

SSN: Senior Staff Nurse

SSM: Senior Staff Midwife

STG: Standard Guideline