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INDIGENOUS NEWBORN CARE PRACTICES AMONG PRIMIPAROUS MOTHERS IN THE EAST MAMPRUSI DISTRICT, GHANA.

BY

FRANCISCA ALEBILA

(10640057)

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DECLARATION

I, Francisca Alebila hereby declare that with the exception of published materials which have been duly acknowledged, this thesis is the result of my own investigation under the supervision of Dr. Florence Naab in the school of Nursing and Midwifery, University of Ghana-Legon and Dr. Michael Wombeogo of the Department of Nursing and Midwifery, University for Development Studies. It must also be made clear that this work has not been presented whether in full or part to any University for the award of another degree.

Signatories

FRANCISCA ALEBILA ……. ……

(Student)

DR. FLORENCE NAAD ……..... ……

(Principal Supervisor)

DR. MICHAEL WOMBEOGO …… ……..

(Co-Research Supervisor)

DEDICATION

This work is dedicated to my family especially my husband, my two daughters, son, and all primiparous mothers. I say may the Almighty God bless you all abundantly.

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My sincerest thanks go to the Almighty God for bestowing on me divine wisdom, speed, energy and protection to complete this study successfully. I am also highly indebted to my dedicated and dynamic supervisors Dr. Florence Naab and Dr. Wombeogo for their sacrifices, scholarly guidance, love, and attention in every stage of the study process. I am blessed to be supervised by intellectuals such as you. I equally thank all faculty members of the School of Nursing and Midwifery, the University of Ghana for their immense contribution to my academic life and this thesis.

I also thank all primiparous mothers for participating in this study. The good Lord richly bless you. My thanks again go to all the authors and publishers whose works were used in this study as literature. Many thanks to my family especially my lovely husband, friends, roommate and colleagues for their love, support and encouragement; God in His infinite love bless you all.

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LIST OF ABBREVIATIONS

BM	Breast milk
EBF	Exclusive Breastfeeding
EMD	East Mamprusi District
GHS	Ghana Health Service
GDHS	Ghana Demographic and Health Survey
GSS	Ghana Statistical Service
INC	Indigenous Newborn Care
JSH	Junior High School
SHS	Senior High School
NMR	Neonatal Mortality Rate
TPB	Theory Planned Behaviour
TRA	Theory of Reasoned Action
UN-IGME	United Nations Inter-agency Group for Child Mortality Estimation
UNICEF	United Nations Children's Fund
W.H.O	World Health Organization

ABSTRACT

Most often, newborns are considered to be a source of joy to the family especially their mothers. However, the survival of these babies depends on the kind of care they receive. Therefore, mothers try as much as possible to provide the best of care for their babies and the cultural beliefs and practices of the mothers play a vital role in shaping child care attitudes. The Theory of Planned Behaviour guided this study to explore indigenous newborn care (INC) practices among primiparous mothers in Northern Ghana. The aim of the study was to explore the indigenous newborn care practices of primiparous mothers in the East Mamprusi Municipality, Ghana. An exploratory descriptive qualitative design was employed for the study. Twelve (12) primiparous mothers were purposively sampled from the East Mamprusi District to participant in the study. Face-to-face interviews were conducted using a semi-structured interview guide to collect data from participants. Thematic content analysis was done after all interviews were audio-recorded and transcribed verbatim. Seven major themes emerged from the data which included: identified INC practices, attitude of primiparous mothers towards INC practices, cultural beliefs (significant others) of primiparous mothers on INC practices, intentions of primiparous mothers about INC practices, behaviour of primiparous mothers towards INC practices and knowledge deficit about essential newborn care. The findings of the study established that primiparous mothers held several beliefs which are categorized as beliefs before the birth of newborns and beliefs after the birth of newborns. These findings suggest that INC practices are deeply rooted in the care of newborns which are difficult to avoid due to cultural beliefs. The findings of this study have implication for nursing practice and future research.

CHAPTER ONE

INTRODUCTION

This chapter presents the background to the study, problem statement, purpose of the study, objectives, research questions, significance of the study and operational definitions.

1.1 Background

It is an undeniable fact that every child is considered very important to the family and the neonatal period is very critical for development. Therefore, some child care measures are carried out to promote newborn growth, survival, and wellbeing. Culture plays a very important role in child care, so in many indigenous societies, beliefs, norms, and cultural values shape child care attitudes and practices. Although there may be variations from culture to culture (John et al., 2015; Reshma & Sujatha, 2014), common indigenous practices such as applying various substance on the umbilical cord, immediate bathing, late initiation of breastfeeding among others, are still widely practiced the world over which are either harmful or beneficial to the health of the newborn (John et al., 2015). Many authors assert that mothers' type of care given to the newborn plays a significant role in newborn survival (Shrestha, Adachi, Petrini, Shrestha, & Khagi, 2016; Sohail, 2017; Wardlaw, Danzhen, Hug, Amouzou, & Newby, 2014).

The most critical period a child is at risk of not surviving is the first four weeks of life after birth (WHO, 2018). UN IGME (2017) defined Neonatal mortality as "the probability of dying before 28 days per 1,000 live births in a given year". Globally, there is a decline in the death of children below five years from 93 deaths per 1,000 live births in 1990 to 41 deaths per 1, 000 live births in 2016 (UN IGME, 2017). However, close to 7, 000 newborns die every day and 2.6 million died within the neonatal period in 2016 (UN IGME, 2017; UNICEF, 2018). Despite the major reduction in under-five mortality for the past several decades, neonatal mortality contributed 46%

of all under-five deaths. The decline in the neonatal mortality rate of 37 deaths per 1,000 live births in 1990 to 19 in 2016 was slower than that of infant age 1–59-month-olds: 49 percent, compared 62 percent (UN IGME, 2017). About 80% of all neonatal mortalities in the year 2016 occurred in Southern Asia and Sub-Sahara Africa where Ghana is inclusive (UN IGME, 2017). This phenomenon though predominant in Low and Middle-Income Countries (LMICs), does not uniformly affect countries (Afolabi, 2017). In the year 2016, India reported the highest number of NMR (695,900 24%) followed by Pakistan (10%), Nigeria (255,500, 9%), Democratic Republic of the Congo (130,900, 4%), and Ethiopia recording (119,500, 3%) (Lawn, Blencowe, Kinney, Bianchi, & Graham, 2016; UN IGME, 2017; UNICEF, 2016). It is estimated that in the year 2030, 3.6 million children will be at risk of death before their fifth birthday and this is the end-line date to achieve the Sustainable Development Goals (SDGs). This will even be worse in Sub-Sahara Africa where under-five children are 10 times more likely to die than high-income countries (Lawn et al., 2016; UN IGME, 2017; UNICEF, 2014b).

According to UN IGME (2017), children under-five in 2016 died from four common yet preventable conditions such as neonatal sepsis (7%), diarrhoea (8%), pneumonia (16%) and pre-term birth complications (18%). Most of these deaths could have been easily prevented by the use of cost-effective measures such as clean birthing, delayed bathing for at least 6 hours, breastfeeding within 30 minutes and clean dry cord care (Dhingra et al., 2014; Leena, Koshy, Varghese, Thankachen, & Fernandes, 2014; Wardlaw et al., 2014; WHO, 2017).

Sociocultural factors including cultural beliefs influence can be attributed to the majority of neonatal death cases that arises (Shamaki & Buang, 2014). The embodiment of some newborn traditional practices can be seen in all cultures that were developed and handed down from generation to generation to reflect society's ideas concerning life (Zeyneloğlu & Kısa, 2018). In

In Ghana, there has been a slow reduction in neonatal mortality from 42 per 1,000 live births in 1990 to 27 per 1,000 live births in 2016 (UN IGME, 2017). Meaning, for a period of 26 years only 15 per 1,000 live births decline has been achieved (UN IGME, 2017). Regions in Ghana that saw a reduction in neonatal mortality rates from 2015 to 2016 included Upper West, Upper East, Northern regions and Greater Accra (GHS, 2017). Bathing babies within 6 hours after delivery, late initiation of breastfeeding, leaving babies unattended to in case of home birth until placenta is delivered and applications of various substances such as black liquid herbal medicine, ash, talcum powder, palm kernel, shea butter, and salt application on the baby's cord are common practices during the post-partum period in Ghana (Bazzano, 2006; Saaka & Iddrisu, 2014).

Research works in recent years, stressed the need for nurses to acquire adequate skills and knowledge in cultural competent nursing care (Yeager & Bauer-Wu, 2013). As a result, scholarly works were concentrated on the need for health care workers to bridge the knowledge gap relative to indigenous practices in order to identify the beliefs, characteristics and health care practices of the individual and provide culturally competent care (Zeyneloğlu & Kısa, 2018). Understanding indigenous newborn care (INC) practices will help health care professionals to identify traditional practices that are harmful and provide education during ante-natal and post-natal to improve newborn survival (Tewabe et al., 2016). There has been limited literature that explored INC in Ghana especially East Mamprusi District (EMD). The current study will fill the gap by exploring the INC practices peculiar to EMD. The purpose of this research was to explore INC practices in the EMD. Exploring the INC practices among primiparous mothers in the district was therefore necessary. The researcher's years of observation in the paediatric unit of the Baptist Medical Centre (BMC), Nalerigu, the District Hospital of the EMD in the North East Region, with anecdotal evidence at the facility indicate an increased admission of babies with neonatal

infections with yearly increase in neonatal deaths. Again, the researcher became interested in this topic due to due the fact that she was almost influenced by her mother in-law to apply indigenous substances to the cord of her newborn in 2011 when she had a first child but due to her experience as a nurse, this act was rejected.

1.2 Problem statement

A significant decrease in newborn deaths is the major concern to reduce deaths among under-five (Kayode et al., 2017). Infant and under-five mortality rates in Ghana have been decreasing gradually since the early 2000s (Diedrich, 2016). Ghana was among the sub-Saharan African countries that could not meet the target of Millennium Development Goals (MDGs) of reducing the under-five mortality rates by two-thirds by the year 2015 due to the slow reduction in neonatal mortality rate (Saaka, Ali, & Vuu, 2018; Saaka & Iddrisu, 2014; UN IGME, 2017).

Approximately 30,000 newborns die in Ghana every year and over 50% of infant deaths occur at the first 30 days [the neonatal period] (UNICEF, 2013). Comparing Ghana with other countries within the West African sub-region, Liberia recorded 23 deaths per 1000 live births with Ghana recording 27 per 1000 live births (UN IGME, 2017). The major causes of deaths in Ghana include infections (31%), pre-term complications (29%), and intrapartum-related deaths (27%) (GDHS, 2014; MOH, 2014). Most deaths in Ghana occur in rural areas (GDHS, 2014) where almost half (49%) of the people live (GSS, 2012). Many newborns die due to lack of care from health professionals (Welaga et al., 2013). These deaths can be attributed to the fact that most deliveries (43.8%) in Ghana occur at home (GHS, 2017). Under-five mortality rates decreased from 1.5 to 1(check this out) in the Northern region between 2015 to 2016 (GHS, 2017). However, the EMD has recorded a consistent increase in neonatal mortality rates over the past five years as showed in table one (1) below.

Neonatal deaths are associated with conditions that are linked to poor quality of care during delivery that can easily be prevented or treated with proven, cost-effective interventions (UNICEF, 2014b). The majority of these deaths can be prevented with measures including clean birthing along with proper resuscitation, management of infections, thermal care, eye care to reduce blindness and breastfeeding (Kayode et al., 2016).

In rural communities, many people are still engaged in INC practices(John et al., 2015). Older women's inclination to the beliefs and practices of their communities have a great influence on the care of newborns. Mothers are influenced to use substances such as herbs and concoctions for the prevention or treatment of illness of the newborn (Withers, Kharazmi, & Lim, 2018). Unacceptable practices such as delivery at home, unclean birthing practices, and cultural beliefs linked with newborn care significantly affect neonatal survival.

The majority of studies on cultural beliefs and practices have been conducted using quantitative designs. Also, most studies on newborn care have been conducted in Southern Ghana and very little studies have been done on the INC practices in the EMD. However, for a five year period, the EMD has recorded a significant increase in NMRs from 2013 to 2017 as seen in table 1.1 below (District Health Information Management System, [DHISMS], 2016).

Table 1.1: Five-year trend of Neonatal Mortality in EMD

YEAR	LIVE BIRTHS	TOTAL NM R	NM RATES (%)
2017	5017	48	9.6
2016	4294	38	8.8
2015	4890	27	5.5
2014	5224	23	4.4
2013	5023	23	4.6

Source: (DHISMS, 2016).

In view of these, the present study explored INC practices among primiparous mothers in the EMD using the Theory of Planned Behaviour (TPB) as an organizing framework (Ajzen, 1991).

1.3 The purpose of the study

The purpose of the study was to explore INC practices among primiparous mothers in the EMD of the North East Region of Ghana.

1.4 Specific objectives

The specific objectives of this study were to;

1. Assess the attitude of primiparous mothers towards INC practices.
2. Identify the cultural beliefs of primiparous mothers on INC practices
3. Assess the perceived behavioural control of primiparous mothers on INC practices
4. Ascertain the intention of primiparous mothers on INC practices

5. Describe the behaviour of primiparous mothers towards INC practices

1.5 Research Questions

1. What is the attitude of primiparous mothers towards INC practices?
2. What are the cultural beliefs of primiparous mothers on indigenous newborn care?
3. What is the perceived behavioural control of primiparous mothers on INC practices?
4. What is the intention of primiparous mothers on INC practices?
5. What is the behaviour of primiparous mothers towards INC practices?

1.6 Significance of the Study

It is imperative that direct health care providers remain attentive to and educate mothers who come to the facility to deliver. This study provided an opportunity to critically examine the INC practices among primiparous mothers in the EMD of the North East Region of Ghana and its implications for effective and efficient education of mothers on newborn care. The findings of this research work provide a sound research-based evidence that guarantees sound based information on INC needed to equip Nurses, Midwives, Doctors and Obstetricians with a good attitude, knowledge, and skills to render comprehensive and holistic health care to mothers and their newborns. The findings will also be used to formulate policies relating to newborn care and improve survival. Subsequently, the majority of stakeholders in health care delivery will be tasked to implement the policies which will give the required attention to issues of newborn survival. Community-based volunteers will be trained and equipped with the requisite skills to deliver quality service to the mother and the child. Neonatal survival will be made an issue of national importance to all stakeholders; hence indigenous practices in newborn care that are beneficial may be adapted and integrated into the normal routines of care rendered to mother and child while

harmful practices discouraged. The study has contributed to enriching the literature on INC and also stimulates further studies into the area.

1.7 Operational definitions

Indigenous: Ideas that are culturally existing in a place rather than arriving from another place.

Newborn: Recently born or under 28 days of age

Practices: Carrying out a service based on cultural ideas

Primiparous mothers: First-time mothers

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

This chapter describes relevant literature in the study area. The theoretical framework guiding the study was first described, followed by an empirical literature review on indigenous newborn care practices. The literature is organized based on the study objectives and the constructs of the theory used.

2.1 Theoretical Framework /Literature Review

The Theory of Reasoned Action (TRA) and Health belief model were found through an extensive literature search. However, these models did not contain all the constructs that could help elicit the right responses needed to address the problem of indigenous newborn care practices. Hence, the Theory of Planned Behaviour (TPB) was the preferred choice because the theory contains an additional construct of perceived behavioural control which is very important in the case of primiparous mothers during the care of newborns. This is because primiparous mothers have little or no experience in the care of newborns and therefore rely on the guidance of significant others in the care of their babies. Therefore, the TPB does not only look at the intention, attitude, subjective norm and behaviour of mothers but also the perceived behavioural control which has to do with the mother's ability to be in control with the care of her baby without interference or influence from other people around her.

2.1.1 Theoretical framework of the TPB

The theory that is used as the organizational framework for this study is the Theory of Planned Behaviour (TPB). This theory was derived from an earlier theory called the Theory of Reasoned Action [TRA] (Ajzen & Fishbein, 1975). The assumption of the TRA was that the

behaviour of an individual is determined by the person's intentions. However, the TRA was used to examine behaviours under one's complete volitional control. Hence, an additional construct the perceived behavioural control was added to TRA due to this limitation. Eventually, the new theory originated, TPB, due to the addition of this new construct which could explain behaviours within the circumstance that are not under one's complete control (Ajzen, 2012).

Three constructs make up the TPB: attitude, subjective norms and perceived behavioural control. Attitude is an individual's feelings which is either positive or negative towards performing a behaviour (Ajzen, 1991). The author asserted that attitude strongly determines individuals' intention and the determinants, evaluation of outcome and behavioural beliefs in turn controls attitude.

Behavioural beliefs are the beliefs an individual has about the possible outcome of behaviour, while the evaluation of outcome is the importance a person places on the end result. An individual's likelihood of performing a behaviour is dependent on the importance he or she places on the behaviour. The greater the valve placed, the stronger the positive attitude and the greater the likelihood the person will execute the behaviour (Glanz, Rimer, & Viswanath, 2008).

Subjective norm: It is the influence of significant others' (teachers, spouse, parents) verdict about the perceived specific behaviour of the individual (Amjad & Wood, 2009). Normative beliefs are an individual's perception about the attitude of significant others towards behaviour and motivation to comply is the degree to which an individual thinks of conforming to what the significant others expect from them. Therefore, subjective norms are determined by normative beliefs and motivation to comply. Hence, an individual will develop a positive subjective norm when that person feels that significant would others approve such behaviour and he or she deems

it necessary to conform to the beliefs of these significant others. The stronger the subjective norm the greater the chances of the individual performing the behaviour (Glanz et al., 2008).

Perceived behavioural control is "the perceived ease or difficulty of performing the behaviour" (Ajzen, 1991). It is the intention of an individual in addition to his or her ability to carry out a behaviour (Glanz et al., 2008). The assumption of this concept is that it is determined by all the accessible control beliefs.

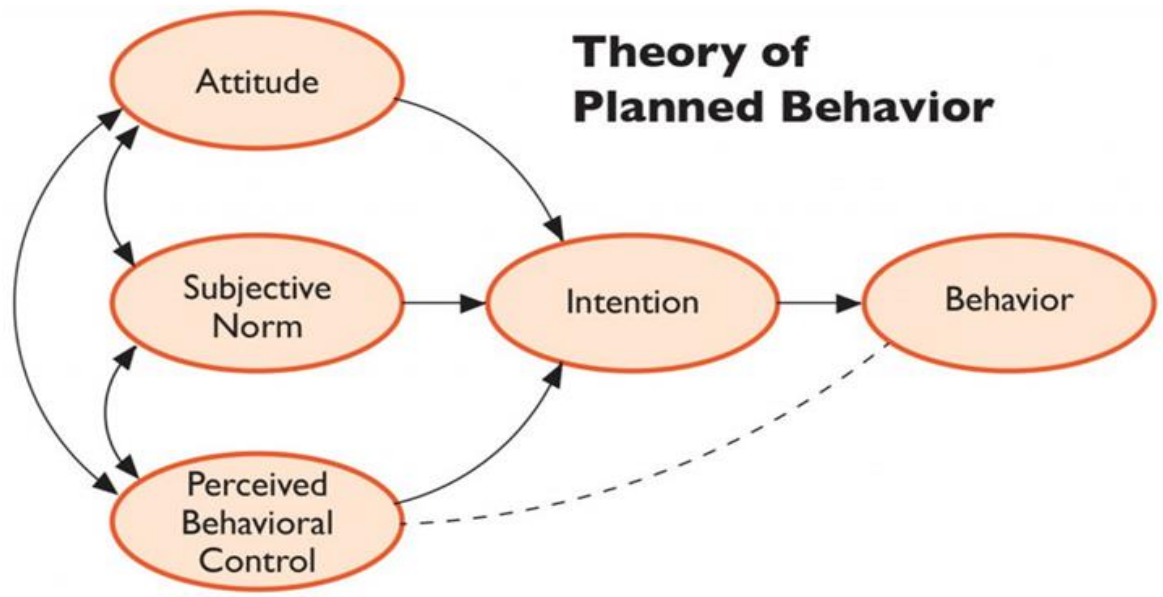
This is based largely on Bandura's self-efficacy, which "refers to beliefs in one's capabilities to organize and execute the course of action required to produce given attainments" (Bandura, 1997). Thus with hindrances surrounding the individual, performing a behaviour will most likely occur when he or she has positive intention and high perception of control while the person with a low perception of control is likely not to execute the behaviour (Ajzen, 2012). Perceived behavioural control is dependent on control beliefs and perceived power (Glanz et al., 2008). Control beliefs are the person's view about the availability or absence of factors that promote or hamper his ability to carry out the behaviour (Ajzen, 2001). Perceived power is the view of the individual about opportunities to perform a behaviour. Thus, the individual's perception of these factors enable or prevent the execution of a behaviour (Glanz et al., 2008).

Collectively, "attitude towards behaviour", "subjective norm" and "perceived behavioural control" results in the creation of "behavioural intention" with "perceived behavioural control" influencing behaviour directly and indirectly through behavioural intention (Ajzen, 1991). Behavioural intention, therefore, represents the person's preparedness to carry out a particular behaviour. The assumption of this concept is that it is "an immediate antecedent of behaviour" (Ajzen, 2002). It is grounded on attitude towards the behaviour, subjective norm, and perceived

behavioural control alongside each construct playing varied influences depending on the behaviour and "population of interest".

Behaviour: This refers to a person's measurable or "observable" reaction towards a particular event relative to a goal or "target". Ajzen (1991) argues that "behaviour is a function of compatible intentions and perceptions of behavioural control because perceived behavioural control is expected to moderate the effect of intention on behaviour, such that a favourable intention produces the behaviour only when perceived behavioural control is strong". This implies that individual intentions and perception of behavioural control determines his or her behaviour since perceived behavioural control links the outcome of one's intentions on his or her behaviour to such an extent that the individual will only carry out behaviour when he or she has a positive intention with a strong perceived behavioural control. In view of this, primiparous mothers will only use indigenous practices to care for their babies if they feel that these practices will be beneficial to the growth of their newborns and they can engage in them without any difficulty.

The TPB has also been used to explain other behaviours such as fish consumption (Higuchi, DÁValos, & Hernani-Merino, 2017), predict smoking cessation (Chiu et al., 2019), predict growth (Collins, Witkiewitz, & Larimer, 2011), food consumption (Ajzen, 2015) and academic cheating (Chudzicka-Czupała et al., 2015).



Source: Ajzen (1991)

Figure 2. 1*:* Theory of Planned Behaviour

As applied to this study, this theory holds that attitudes of primiparous mothers towards INC practices, approval or support by significant others to carry out these practices (subjective norms) influence the behaviour of the women in their choices or decision that they make. In addition, mothers' willingness, commitment and the capacity to carry out INC practices (behavioural intention) and the mothers' ability and control over challenges of INC practices (perceived behavioural control) will positively influence their behaviour towards these practices. This is so because if an individual's attitudes towards the application of INC is endorsed by her spouse, parents and mother-in-laws and the individual is very sure or convinced that she can practice indigenous newborn care; she also has a stronger intention to practice INC and has the knowledge, capacity, and ability to control for other factors (internal and external) then she is most likely to care for her newborn using traditional practices.

2.2 Literature Review

A search for literature on the INC practices among primiparous mothers was conducted. Databases such as PubMed, CINAHL, Science Direct, HINARI, Medline, JSTOR, Google Scholar, Scopus, Google search, EBSCOhost and SAGE were consulted. Key terms such as indigenous newborn care, cultural beliefs, and newborn practices, traditional newborn care practices, and postpartum newborn care practices were used to retrieve relevant literature for the study. After retrieving many articles, only those relevant to the study ranging from 2013 to 2018 except older classical literature relevant to the topic with empirical quality were included in the review. The literature review was organized according to the objectives of the study and the constructs of the TPB.

2.2.1 Attitude of primiparous mothers on newborn care practices

Ajzen and Fishbein (1975) defined attitude as "the evaluation of an object, concept, or behaviour along a dimension of favour or disfavour, good or bad, like or dislike" (Ajzen & Fishbein, 2011) p.3. The authors further proposed that attitudes predict behaviour such that people with positive attitudes towards a behaviour are mostly engaged in that behaviour while negative attitudes influence a person to refuse to engage in a behaviour (Ajzen & Fishbein, 2011). In relation to primiparous mother's attitude towards newborn care, if the mother perceives that practicing INC will not harm the baby, then the mother is most likely to carry out the behaviour. Likewise, if the mother perceives that using indigenous practices to care for her baby will be harmful, then the mother will less likely to exhibit the behaviour.

Several research works have reported findings with regards to women's attitude towards newborn care. Begum and colleagues (2017) in a literature review of 14 articles found that mothers had poor attitude to Maternal and Child Health services due to traditional beliefs resulting in late

initiation of breastfeeding, discarding of colostrum and unclean cord care (Begum, Sebastian, Kulkarni, Singh, & Donta, 2017). A study in Bangladesh revealed that a higher proportion of mothers delivered at home with the majority of these women not receiving postnatal care services thereby exposing newborns to cultural practices (Shahjahan, Chowdhury, Al-Hadhrami, & Harun, 2017). Another study indicated that the majority of mothers engaged in indigenous practices because of the perceived benefits for their babies (Degefie, Amare, & Mulligan, 2014). Vinu et al. (2014) in a quantitative study reported that the highest number (73.3%) of mothers demonstrated average attitude towards cultural beliefs of newborn care (Vinu et al., 2014). A similar study in Papua New Guinea elucidates that although women recognize the benefits of giving birth at a health facility they still showed positive attitudes towards home deliveries due to their cultural beliefs and practices (Vallely et al., 2015).

A study in Uganda revealed that mothers had higher ANC visits, skilled birth attendance, and middle-level socio-economic status yet beneficial newborn care practices was low (Owor , Matovu , Murokora , Wanyenze , & Waiswa 2016). Sychareun and colleagues (2016) also found that the majority of mothers held the opinion that home-based deliveries were the best since they were healthy and did not see the need to waste money and time going to the hospital and also to prepare for birth was considered a taboo (Sychareun et al., 2016). In contract Dhingra et al. (2014) discovered that women bought delivery items such as gloves, plastic sheet, and razor ahead of time before the day of labour.

A study in Nigeria revealed that most mothers had the view that exclusive breastfeeding (EBF) was stressful and others said it was unnecessary (Ugboaja, Berthrand, Igwegbe, & Obi-Nwosu, 2013). Vijayalakshmi and colleagues (2015) in a similar study elucidated that although the majority of women had good knowledge on breastfeeding, they demonstrated neutral attitudes

towards breastfeeding indicating room for education (Vijayalakshmi, Susheela T, & Mythili 2015). A quantitative study in Nigeria indicated that 71% of mothers had favorable attitude regarding EBF, 95.3% were aware and 82% had knowledge on it yet the practice of EBF was observed to be low (33.5%) among participants (Onah et al., 2014).

Another study discovered that although mothers breastfed their babies, 72.5% of the mothers introduced pre-lacteal feeds to their newborns and 51% had positive attitude towards feeding newborns with pre-lacteal feed with the opinion that it will transfer the characteristics of the person feeding the baby to the newborn (Asim, Malik, Tabassum, Haider, & Anwar, 2014). Contrary findings indicates that the majority of mothers agreed that newborns should not be fed with pre-lacteal feeds since it was harmful to their health but some mothers also held the view that water should be given in addition to human milk due to hot weather and the belief that human milk is difficult to digest (Yotebieng, Chalachala, Labbok, & Behets, 2013). Asare, Preko, Baafi, and Dwumfour-Asare (2018) asserted that EBF was likely to be poorly practiced among mothers from Northern part of Ghana than mothers from Southern Ghana. This may be as a result of cultural beliefs that are deeply rooted in the northern part of the country (Asare et al., 2018).

A similar study in Ghana revealed that the mothers held the opinion that certain illnesses in newborn were not meant for hospital and vehemently asserted that a baby suffering from *asram* (a native condition) must not be sent to the hospital for treatment (Okyere et al., 2010). Another study discovered that 81.6% of mothers held the view that oil massage of newborns make them grow strong bones (Khanna & Gupta, 2017). Coffey and Brown (2017) in their review reported that all kinds of substances were used to apply on the umbilical cord of newborns with the desire of hastening cord separation and promoting healing. A recent study in Kenya revealed that the majority of mothers culturally supported breastfeeding and fed their newborns with colostrum

(Gee, Vargas, & Foster, 2019). However, infants were given pre-lacteal feeds and also applied indigenous substances to the umbilical cord of babies (Gee et al., 2019). In contrast, Jiji, Wankhede, and Bazil Alfred Benjamin (2014) reported that the majority (61.0%) had a positive attitude towards optimal newborn care and non-had negative attitudes (Jiji et al., 2014).

2.2.2 Cultural beliefs (subjective norms) of primiparous mothers on newborn care practices

"Belief" is the act of having faith or believing in something. Cultural beliefs are still held in high esteem and their significance cannot be underestimated in many communities (Withers et al., 2018). Further, traditional beliefs and practices can be observed in every culture which was established and bestows from generation to generation as a reflection of society's concepts about life (Douglas et al., 2014; Shamaki & Buang, 2014; Walton & Schbley, 2013). Therefore, women's' cultural beliefs positively influence their behaviour. Hence, the majority of the women's behaviours during the postpartum period are strongly influenced by their cultural background (Sunanda & Shynee 2013). Regardless of whether the women lives in rural or urban area, cultural norms influence these women attitudes, which in turn affect the care they give to their newborns (Reed, Callister, Kavaefiafi, Corbett, & Edmunds, 2017).

Similarly, subjective norms are determined by women's beliefs regarding what others think about them performing a behaviour and the perceived pressure for them to perform that behaviour. Subjective norms are then weighted by the woman's motivation to go along with those important people such as husband, mother, mother-in-law and father-in-law (Hamilton, Daniels, White, Murray, & Walsh, 2011). Mother-in-laws help in the care of newborn babies and are regarded as the most influential people in newborn care in which their cultural beliefs are bestowed on the care of the postpartum mother and baby (Jamaludin, 2014; Lundberg & Trieu, 2011).

According to Acikgoz et al. (2014), many mothers regarded indigenous practices as very vital and used these practices in caring for their babies giving the reason that traditional practices are safe and effective. The authors further added that the mothers had no trust for health care personnel and a few mothers (10.5%) expressed pressure from family to engage in such practices (Acikgoz et al., 2014).

Zeyneloğlu and Kısa (2018) in a study among Turkish postpartum women revealed that various items including needles, Quran (Islamic book) and a cup of lead were placed around newborns and their mothers to protect them against evil eyes or spirits. The authors added that these practices were widely observed among older women, primiparous mothers and illiterate mothers (Zeyneloğlu & Kısa, 2018). A similar study in Turkey also indicated that women practice late initiation of breastfeeding, thus avoiding to breastfeed babies until three azans (an Islamic prayer) has been said due to a belief that babies will become intelligent, pious and patient. Colostrum was also discarded with the belief that it is dirty and harmful to the newborn. The authors further revealed a hazardous practice among these women where lead was also melted and poured over the head of the babies as a result of a cultural belief of protecting against the evil eye and to heal illnesses (Acikgoz et al., 2014). Again, a quantitative study in Mangalore Taluk showed that the majority of mothers 82% applied "*Kajal"* on the face of the baby to protect against evil eyes (Reshma & Sujatha, 2014). Similar studies reported almost all (99%) the mothers applied *kajal* and used black thread after a naming and purification ceremony to protect newborns from bad spirits or eyes (Sunanda & Shynee 2013).

Human breastmilk (BM) is regarded as the ideal food for newborns right after birth and is also recommended by WHO to breastfeed newborn within the first 30 minutes after birth (WHO, 2017). Despite this recommendation, several babies are still denied this important food especially

the “liquid gold” due to cultural beliefs and practices. These practices are evident in several studies all over the world including Ghana where it is discovered that mothers discarded colostrum with the belief that colostrum was dirty, "bad blood in the breast", contaminated with sex and causes abdominal conditions such as vomiting and colic (Aborigo et al., 2012; John et al., 2015; Nethra & Udgiri, 2018; Sharkey et al., 2017; Srikanth, Subbiah, & Srinivasan, 2017; Withers et al., 2018).

In some cultures, lactating mother right after birth need to feed well to produce adequate BM for the newborn to suckle (Altuntuğ, Anık, & Ege, 2018). However, advice from mothers and mother-in-laws turn to restrict women of certain types of food that are believed to be cold food (Mao et al., 2016; Sein, 2013). Pre-lacteal feeding of babies is also another vital aspect that cultural belief has great influence. Many research work has reported that the majority of mothers introduce pre-lacteal feeds to their babies with the belief that BM alone does not satisfy newborns and lacks enough water to quench their thirst (Asim et al., 2014; Salasibew, Filteau, & Marchant, 2014; Yotebieng et al., 2013). In contract Onah et al. (2014) and Baral et al. (2017) both found that a greater portion of the mothers supported and adopted exclusive breastfeeding (EBF). Another study showed that mother-in-law’s beliefs had a strong influence on the attitude of postpartum mothers. Although most of these mothers had sufficient knowledge of the need to eat healthy foods, they still practiced some food restrictions (Diamond-Smith, Thet, Khaing, & Sudhinaraset, 2016).

Bathing newborns after birth play a significant role in promoting fresh skin and preventing infection. However, WHO (2017) recommends late initiation of bathing babies at least after 24 hours to prevent hypothermia. Interestingly, studies in Ghana (Hill, Tawiah-Agyemang, Manu, Okyere, & Kirkwood, 2010), Nigeria (John et al., 2015) and Ethiopia (Withers et al., 2018) showed

that babies were given cold bath right after delivery with a belief that the cold water help babies to grow strong, fat and healthy than babies bathed with warm water.

According to WHO (2017), all newborns whose birth occurred at a health facility or low infectious areas should receive clean, dry cord care. Indicating no substance, be it indigenous substances or any substance should be applied on the umbilical cord of newborns. Several studies both in Ghana (Moyer et al., 2012; Nutor, Kayingo, Bell, & Joseph, 2016; Saaka & Iddrisu, 2014) and abroad (Al-Sagarat & Al-Kharabsheh, 2016; Amare, 2014; Çapik & Çapik, 2014; Osman, Gaffer, Sharkawy, & Brandon, 2017; Pati, Chauhan, Panda, Swain, & Hussain, 2014; Sharkey et al., 2017) elucidated that most of the mothers applied various indigenous substances on the cord of newborns with the belief that it will hasten the drying and detachment of the cord .

2.2.3 Intention of primiparous mothers on newborn care practices

Intentions can be theorized as willingness to carry out a specific behaviour (Fishbein, 2004). Depending on the intentions of mothers, several newborn care practices can be adopted including harmful or beneficial traditional practices. Shlafer, Davis, Hindt, Goshin, and Gerrity (2018) reported that although some women delivered in a health facility, their intention to give birth there again or recommend facility delivery to someone appeared negative (Shlafer et al., 2018). A study in Turkey revealed that most of the mothers used indigenous practices with the mind of facilitating the healing process when their babies fall ill (Alparslan & Demirel, 2012). A quantitative study in Nepal discovered that the majority of mothers had good practices on EBF, clean cord care, and antenatal care services but poor practices when it comes to thermal care and going for postnatal services. The poor intention of the mothers towards postnatal services was as a result of the behaviour of staff and low quality of services at the health care centres (Baral et al., 2017).

Another finding in India indicated that all the mothers adhered to food restriction with the intention of not causing harm now or later to the newborn and mother (Sein, 2013). A similar study found that mother's intention to exclusively breastfeed her baby after birth was influenced by six variables including past experiences with breastfeeding, husband's support, going for breastfeeding class during antenatal services, mother herself being breastfed, placing importance on babies survival and when a decision was made to breastfeed (Yang, Wan-Yim, & Gao, 2018). Also, the study showed that women with more encouragement from their husbands were most likely to intent to practice EBF (Yang et al., 2018). Nguyen et al. (2018) discovered that most mothers had good intention towards EBF with 90.6% of them initiating breastfeeding within 1 hour. However, 39.6% had the intention not to practice EBF due to the belief that their BM alone was not sufficient to satisfy their newborns (Nguyen et al., 2018).

Qualitative studies in Zambia indicated that thermal care for newborns was generally good. However, cold bath at night was a common practice and women applied various substances both dry and wet such as dust, cooking oil, charcoal, baby powder, BM, fowl faeces, petroleum jelly, powders made of roots, ashes, used motor oil and cow droppings on the skin and cord of newborns with the intention of facilitating cord healing and protecting them from harm (Herlihy et al., 2013; Sacks et al., 2015). Amare (2014) in a qualitative study revealed that participants applied traditional substances on the cord of their babies with the intention of keeping the cord moist, facilitate cord separation and healing (Amare, 2014).

2.2.4 Perceived behavioural control of primiparous mothers on newborn care practices

Perceived behavioural control is the individual's ability to perform a behaviour despite certain factors that motivate or hinder the performance of that behaviour (Hamilton et al., 2011). This is evidenced in a study by Amolo, Irimu, and Njai (2017) which revealed primiparous mothers

who did not receive antenatal services, and unemployed women exhibited inadequate knowledge on optimal newborn care. A study in Indonesia also reported that many of the mothers failed to report for check-ups after birth due to insufficient knowledge regarding postnatal care (Probandari, Arcita, Kothijah, & Pamungkasari, 2017). A descriptive qualitative study reported that infants were at risk of cord infection which could pose a serious threat to the life of these babies and mothers recognized the need to treat their babies with modern medicine when taken ill. However, it was difficult for them to surrender cultural practices including indigenous cord care, although these mothers expressed readiness to engage in healthy practices that will improve newborn survival (Walsh, Norr, Sankar, & Sipsma, 2015).

Sychareun et al. (2016) found that the mother's belief that birth preparation is a bad omen and colostrum was regarded as harmful to the health of the baby had serious neonatal consequences. The authors added that the majority of mothers had full control over whether to use traditional newborn care or not (Sychareun et al., 2016). Another study also revealed that mothers were not forced by family members but the type of family or religion influenced their decision to practices traditional newborn care (Reshma & Sujatha, 2014). A qualitative study in Uganda reported that women had good practices regarding appropriate cord care and provision of warmth (Nabiwemba, Atuyambe, Criel, Kolsteren, & Orach, 2014). However, the mothers had poor practices with regard to early initiation of breastfeeding, EBF and late bathing of newborns were poorly practiced (Nabiwemba et al., 2014). In contrast, Meseka (2013) discovered that 70% of the mothers were aware that cord stump should not be covered, 80.5%-83.9% knew of feeding babies with colostrum, practicing EBF, eye care, and immunization and this was associated with health at education antenatal and postnatal clinics (Meseka, 2013).

A similar study in Indian discovered that the majority of mothers 76.7% and 53.3% had good knowledge and excellent newborn care practices respectively (Castalino, Nayak, & D'Souza, 2014). Another study reported that although the majority of women knew and 92.9% practiced optimal newborn care, over 50% of these women still applied indigenous materials such as butter or oil to the umbilical stump of the newborn (Misgna, Gebru, & Birhanu, 2016). Adejuyigbe et al. (2015) indicated that almost all the study participants rarely regarded the provision of warmth to newborns as important (Adejuyigbe et al., 2015).

2.2.5 Behaviour of primiparous mothers on newborn care practices.

A study in London among Chinese women revealed that all mothers practiced breastfeeding either exclusively or added infant formula. For those who gave solid foods, they did that with "congee" (rice porridge) a Chinese dish (Leung, 2017). Another study in Jordan found that most of the mothers applied different kinds of substances on the umbilical cord of the baby, swaddling, and salting during bathing of babies (Al-Sagarat & Al-Kharabsheh, 2016). Çapik and Çapik (2014) indicated that more than half of the mothers applied various substances such as spray, cream, powder, ashes, black cumin, and metal coin to the cord of the baby and also discarded colostrum. The authors added further that blue beads were fixed onto babies' clothes to protect them from evil eyes. A similar study reported that participants often applied butter to the cord of the baby to hasten the drying process, breastfeeding was delayed after discarding colostrum, babies were fed with herbal drinks with the reason for the inadequate production of BM and babies were bathed with cold water and exposed to smoke (Degefie et al., 2014).

A literature review of 14 articles from 2008 to 2012 in Turkey showed that traditional practices such as swaddling, salting, *holluk*, late initiation of breastfeeding, making the forties (keeping both mother and baby indoors for forty (40) days) were very common among mothers

(Özyazıcıoğlu & Polat, 2014). A study in India showed that mothers commonly applied various materials on the skin and cord of the newborn, delayed breastfeeding, initiated bathing of babies right after birth (Pati et al., 2014). Similarly, Gul (2014) explained that despite many women receiving antenatal services, yet these women applied mustard oil, turmeric and purified better to the umbilical cord of babies, 43% and 73% discarded colostrum and gave pre-lacteal feed respectively, and 84% initiated the first bath within 24 hours. This indicates that optimal newborn care was poor among the majority of the mothers (Gul, 2014).

Srikanth and colleagues (2017) in a literature review of 13 articles discovered that mothers delayed initiating breastfeeding, discarded colostrum because it was seen as harmful, impure, and causes indigestion or diarrhoea. Newborns were given pre-lacteal feeds such as honey, plain water, sugar or salt solution and diluted cow's milk (Srikanth et al., 2017). A similar study in India also indicated that many of the participants lacked good practices on infection prevention, feeding newborns with colostrum especially primiparous mothers from rural areas. However, the study showed that 70% of the mothers had good practices regarding thermal care and immediate breastfeeding practices (Upashe, 2014). A similar study in Nepal revealed that a greater number of the participants did not feed their newborns with colostrum because they felt colostrum was insufficient in nutritional value (Sharma, van Teijlingen, Hundley, Angell, & Simkhada, 2016).

According to Shah and Dwivedi (2013), a greater number of participants initiated breastfeeding and added pre-lacteal feeds such as honey, plain water, salt water and concoctions (Shah & Dwivedi, 2013). A similar study indicated that the majority of participants gave pre-lacteal feeds to their babies, used oil to massages babies before bath and treated newborns at home when they fall sick (Sasikala , Jyothi , Chandrasekhar , Kumar , & Bhaskar 2017). However, the participants avoided the application of indigenous substances on the cord of newborns (Sasikala

et al., 2017). Another study revealed that women after delivery consume a lot of fish, eggs, meat, and chicken and reduced the intake of milk, fruits, and vegetables (Mao et al., 2016). A qualitative study in India discovered that beneficial practices such as attending antenatal services, health facility deliveries, and late initiation of bathing with infection prevention were some practices employed by women (Latha, 2017). In spite of these good practices, participants engaged in harmful practices such as delay breastfeeding, discarding colostrum, improper cord care and poor thermal care (Latha, 2017).

A mixed method study in Sierra Leone showed that immediate breastfeeding, clean cord care and delaying first baths were poorly practiced among postnatal mothers across all districts although the majority of mothers who had facility delivery reported early with their newborns for postnatal care (Sharkey et al., 2017). Nethra and Udgiri (2018) found that common practices among mothers included the application of *kajal* on the face and eyes of babies, 75% of mothers poured oil in the ears of newborns and 16% did not give colostrum to their babies (Nethra & Udgiri, 2018). Another study in Upper Egypt revealed higher percentage (90%) delivery were assisted by TBAs with women initiating breastfeeding late and applying substances on the cord and eyes of newborns (Osman et al., 2017). A qualitative study in Ethiopia revealed that the majority of mothers practiced clean cord care and breastfeeding, but most of the mothers also practiced pre-lacteal feeding, late initiation of breastfeeding, and immediate bathing (Salasibew et al., 2014).

According to Islam, Islam, Yoshimura, Nisha, and Yasmin (2015) mothers engaged in harmful practices such as early bathing of babies, poor cord care, delay breastfeeding and introduction of other feds to their newborns. However, drying and wrapping newborns and giving colostrum were universally practiced (Islam et al., 2015). A qualitative study in Nepal reported that participants practice early shaving of newborns hair and believed that traditional practices

were affordable to them (Subba, 2015). A case report showed that a mother and her mother-in-law engaged in harmful traditional practices such as oil massage, applying substances on the umbilical cord and feeding of concoctions, water and pre-lacteal feeds. These resulted in organ prolapse, cord sepsis and muscle wasting respectively (Peterside, Duru, & Anene, 2015).

A study in Ghana revealed poor optimal newborn care especially clean dry care of the cord and late bathing of babies and less than 50% of them initiated breastfeeding within 30 minutes (Saaka & Iddrisu, 2014). Another study also revealed that mothers showed understanding of clean birthing process yet applied all sort of substances including shea butter, cooking oil, local herbs, and "red earth sand" on the cord of the newborn after cutting and tying with all kinds of instruments such as razor, scissors, string, rope, thread, twigs, and clamps. In addition, mothers also repeatedly mentioned keeping babies warm and their surroundings clean to prevent newborns from falling sick (Moyer et al., 2012). A similar study in Ghana also found common practices among participants to include the application of oil, methylated spirit, toothpaste, and shea butter, although 79% of the mothers received best medical practice recommendations from healthcare workers (Nutor et al., 2016).

2.2.6 Summary of literature reviewed

The attitude of a person is influenced by the belief that carrying out behaviour is vital or will result in outcomes that are beneficial or harmful (Hamilton et al., 2011). These beliefs can play an important role in a woman's life by not following the recommended guidelines. Recent studies across the world have showed that mothers with poor attitudes towards newborn care due to cultural beliefs have led to the majority of women delivering at home although mothers had good knowledge on the importance of maternal and child care services, late initiation of breastfeeding, discarding colostrum with the belief that it is dirty, applying harmful substances on

the baby's cord, using unsterilized materials to cut the cord of the baby, bathing of newborns immediately after birth and bathing babies with cold water with the belief that the babies will become fat (Asare et al., 2018; Begum et al., 2017; Khanna & Gupta, 2017; Owor, Matovu, Murokora, Wanyenze, & Waiswa, 2016; Shahjahan et al., 2017; Somefun & Ibisomi, 2016; Sychareun et al., 2016; Vallely et al., 2015; Vijayalakshmi et al., 2015).

Culture plays a very vital role in the care of children all over the world and some of these cultural practices that are used may affect the lives of newborns (Reshma & Sujatha, 2014). Several research findings in Turkey revealed that needles were placed under the pillow of the newborn, lead poured in a cup was also place over the head the newborn and applying "*Kajal*" on the face of the newborn with the belief of preventing evil spirits from harming the baby (Reshma & Sujatha, 2014; Zeyneloğlu & Kısa, 2018).

Studies from other parts of Africa including Ghana have also shown that mothers practiced food restrictions during pregnancy as a result of grandmothers or in-laws' beliefs concerning certain foods such as eggs, snails and some type of vegetables consumed at that period which are believed to cause harm to the foetus. In addition, babies were also bathed with cold water to make them strong and healthy, colostrum discarded with the belief that it is contaminated from sexual intercourse and also that it causes abdominal pains and vomiting (Diamond-Smith et al., 2016; Gupta et al., 2015; John et al., 2015; Sharkey et al., 2017; Withers et al., 2018).

A woman's intention is her preparedness to execute a particular behaviour. Studies have revealed that mothers had poor intentions towards postnatal services due to the negative behaviour of health staff (Baral et al., 2017). Also, mothers practiced food restrictions with the intention of not causing harm to their babies. Several other findings showed that mothers who had good intentions towards breastfeeding were either breastfed by their mothers, had opportunity to attend

breastfeeding classes during antenatal services or these mothers had support from their husbands to initiate and practice EBF (Nguyen et al., 2018; Sein, 2013). The applications of various substances to the cord of the newborn was also found to be a common practice among postnatal mothers with the intentions of aiding healing of the cord and also repelling evil spirits from the baby (Herlihy et al., 2013; Yang et al., 2018).

The behaviour of a mother in the application of traditional practices is determined by her ability to control that behaviour. Studies have shown that mothers did not attend antenatal and postnatal services due to lack of knowledge regarding the importance of these services to the survival of their babies (Probandari et al., 2017). Other studies revealed that mothers had knowledge of essential newborn care practices yet found it difficult to do away with traditional practices such as applying substances on the baby's cord, early breastfeeding, colostrum feeding, immunization, and delay bathing of babies due to their cultural beliefs (Amolo et al., 2017; Nabiwemba et al., 2014; Sychareun et al., 2016; Walsh et al., 2015).

The behaviour of an individual is influenced by the attitude and intention that is held by the person. The care of newborns is largely dependent on their mothers and other family members. The literature revealed that mothers engaged in traditional newborn care ranging from bathing babies soon after birth to applying indigenously made substances to the skin and umbilical cord. Others also practiced swaddling, late initiation of breastfeeding, salting and massaging with mustered oil, ground nuts oil, local herbs during bathing, pouring milk and oil in the ears of babies, giving pre-lacteal feed such as sugar, honey, diluted cow milk and salt solution (Al-Sagarat & Al-Kharabsheh, 2016; Leung, 2017; Özyazıcıoğlu & Polat, 2014; Pati et al., 2014) . These traditional practices were similar to practices in Ghana where mothers preferred to deliver at home and the cord of the newborn was tied and cut with various instruments such as rope, thread, twigs, scissors,

and blade. After delivery of the baby, substances including shea butter, toothpaste, and red earth sand were also applied to the umbilical cord to facilitate healing (Moyer et al., 2012; Saaka & Iddrisu, 2014).

CHAPTER THREE

METHODOLOGY

This section provides a description of the methods used to achieve the study objectives. It included the study design, the setting, target population, sample and sampling technique(s), data collection method, data analysis as well as data management. Ethical considerations were also discussed.

3.1 Research approach and Design

A qualitative research design was used for the study. Qualitative research is based on a global view that is holistic; it is of the belief that there are multiple constructed realities in life where the known and the unknown cannot be separated, the inquiry is also value bound and all its applicability are time bound and time context (Burns & Grove, 2007). A qualitative approach is an act of perceptually putting together pieces of information to make a whole. When meaning is produced from varied individuals with varied perceptions, it is possible for different and comprehensive meanings to be made concerning the phenomena under study (Munhall, 2001; Vaismoradi, Turunen, & Bondas, 2013).

An exploratory qualitative design is used when little is known about a phenomenon, a situation or problem (Polit & Beck, 2008). This design was beneficial because little was known about the INC practices in the district. A qualitative exploratory study is also carried out in a natural setting; hence the homes of the participants constituted the natural setting. Beliefs and practices vary; therefore, the researcher put emphasis on understanding participants' words, actions and expressions that aided the research to elicit the required information. For a study to be reliable and

trustworthy it is important that a variety of individual beliefs and practices are gathered; hence this guided the study and the choice to do a qualitative study.

3.2 Setting of the study

The study was conducted in the East Mamprusi District (EMD) of Ghana. The District is one of the 6 Districts in the North East Region carved out of the Northern Region with its capital in Nalerigu in 2019. Nalerigu is a historic town with "Nayiri'', king of Mamprugu traditional area as the ruling King. The EMD was established by Legislative Instrument (LI) 1776 (2004) with Gambaga as its capital at that time. It is one of the oldest Districts in the Northern Region; the West Mamprusi District was carved out of it in 1988 and Bunkpurugu-Yunyoo District in 2004 to promote developments. It served as the parent district for Bunkpurugu, Yinyoo and West Mamprusi Districts.

The population of EMD, per the 2010 population and housing census was 121,009 representing 4.9 percent of the Region's total population. Males constitute 49 percent and females represent 51 percent. The population of the District is youthful (0-14) years representing 47.6 percent and showing a broad base population pyramid which tapers off with a small number of elderly persons [60+ years] (Ghana statistical service, 2013). The East Mamprusi District is located in the North-Eastern part of the Northern Region. The Guru-Tempane, Bawku West, Nabdam and Talensi district in the Upper East Region borders to its North. To the East of the EMD are the Bunkpurugu and Yinyoo Districts and at it, West and South borders are the West Mamprusi District and The Karaga and Gusheigu District respectively. The total land mass coverage of the EMD is 1,706.8 square kilometre. Thus 2.2% of the total land mass of the Region (Ghana Statistical Service, 2013). There is one district hospital situated in Nalerigu, three (3) clinics and five (5) health centres at Langbensi, Gambaga, Gbintir, Sakogu and Namangu which take care of

the health needs of the people. The Baptist Medical Centre (BMC) which is the district hospital serves as a referral centre for the clinics and health centres and even sometimes for other nearby Districts such as Gusheigu/Karaga, Bunkpurugu, and West Mamprusi district. The EMD is dominated by Muslims representing 58.1% of the population. Twenty-two-point six percent (22.6%) and 15.7% are Christians and Traditionalists respectively.

Fifty-seven percent (57%) of the population aged 12 years and above are married. Early marriage is a common phenomenon in communities such as Gbintir, Tuni, and Nabori. Teenagers who marry and cannot meet their personal and family needs economically travel to the southern part of the country for "*kayaye*" periodically. Some of the teenagers' come back with children from other men. *"Kayaye*" refers to adolescents and women who migrate to the southern part of Ghana to do menial jobs especially carrying people's items for money in the cities. 84.4% of the total population are mainly farmers. Seven-point one percent (7.1%) are engaged in services and sales work and 3.9% are also engaged in craft and other related jobs.

The EMD is rich with human and natural resources especially tourists' attraction sites such as the "Naa Djeringa" walls (which was built without water but only milk and honey in Nalerigu) and labourers who complained of tiredness during the building of the wall were killed and their blood mixed with mortar. The Gambaga witches camp and Moshie chiefs' ancestry graves in Gambaga are also tourist attraction sites within the district.

3.3 Target population

The study population is the entire set of persons or elements who meet the sampling criteria of the study. In this study, all women who had given birth for the first time and with babies 28 days old and below living in the EMD were the target population.

3.3.1 Inclusion criteria

1. Women who were primiparous and had babies 28 days or younger were included because this group of mothers had little or no experience in the care of newborns and mostly rely on the guidance of significant others who influence the care they give to the newborn.

2. Study participants were also natives of the area and resided in the EMD for not less than 6 months.

3. They were English or Mampruli speaking and gave voluntary consent to participate in the study.

4. The eligible women were within the postnatal period of 28 days and aged 18-30 years. This was because the neonatal period is the riskiest time for newborn survival and primiparous mothers are easily influenced by elderly women (UNICEF, 2017; Withers et al., 2018).

3.3.2 Exclusion criteria

1. Primiparous mothers who were emotionally unstable had stayed in the district less than 6 months prior to the study were excluded.

2. Effective communication was vital to the outcome of this study. Therefore, primiparous women with babies 28 days or younger who could not hear or speak (hearing and speech impairment) were also excluded.

3.4 Sample size and sampling method

Sampling is the process of selecting part of a population with the intent of collecting information which will be used to examine the characteristics of the population being studied (Khan 2012). Studying the entity of a population is usually difficult hence the need to select the part of the population of interest for a study. A purposive sampling method also known as

judgemental sampling technique was used for the study. Purposive sampling is a non-probability sampling method which is often used in qualitative studies. With this sampling method, it is assumed that the researcher's knowledge about the population and its elements are used to select appropriate participants for the study (Polit et al., 2001).

A purposive sampling approach was used to contact primiparous women with babies 28 days and younger in the District. The researcher, after gaining ethical clearance and permission to conduct the study visited the maternity and labour ward at least twice every week and worked with the midwives which enabled her to established rapport with mothers who had delivered live babies. The researcher in working with the midwives in the ward ensured no influence in any form of normal practice in the ward. About 25 women were recruited at the maternity unit of the District Hospital (Baptist Medical Centre) and the researcher obtained telephone numbers of potential participants for the purpose of contacting them later for engagement. The women were afterward traced to their various homes and the researcher's intentions were made known to them and asked for their consent to be part of the study.

Twenty (20) women agreed to participate in the study while 5 could not take part due to their busy schedules. Finally, a total of 12 women participated in the study since data saturation was met. The venue (Baptist Medical Centre) was chosen due to the fact that it is a referral centre for all other health facilities in the District and it is also strategically located and easy to access. Samples drawn from the District Hospital were geographically representative of the district. As a backup method of recruitment, the researcher after seeks for permission from the ward in-charge contacted the admissions and discharges book in the ward for the contact addresses of women who had delivered live babies.

3.5 Data Collection Tool

Data collection for this study was in the form of an in-depth interview using a semi-structured interview guide prepared in English (see Appendix C). The interview guide was developed upon an extensive literature review based on the objectives of the study. The interview guide was then reviewed by the supervisor and peers for its credibility and dependability. In-depth interviews had the advantage of getting detailed information which is full and rich from the subjects (Polit & Beck, 2008).

It had main question areas in line with research objectives and also contained probing questions that elicited clarification which got detailed and accurate information. The interview guide was organized into sections A, B, C, D, E, and F that elicited information on the participant's personal profile, the attitude of mothers towards indigenous newborn care, mothers intention concerning indigenous newborn care, their cultural beliefs that influence the care given to newborns, their perceived behavioural control on INC practices and their behaviour towards INC practices . The tool was pre-tested at the Walewale Hospital in the West Mamprusi District and all ambiguities clarified. The pre-tested results were not included in the main findings.

3.6 Data collection procedure

Ethical clearance and approval were sought from the Institutional Review Board of the Noguchi Memorial Institute for Medical Research of the University of Ghana (see Appendix A). An introductory letter from the School of Nursing and Midwifery were also obtained (see Appendix B) to the Baptist Medical Centre to recruit participants for the study. In addition, permission was also sought from the district health directorate and the chief of Mamprugu to carry out the study.

The researcher worked with the midwives in the maternity unit of the Baptist Medical Centre which enabled her to establish rapport with mothers and gained their trust. The mothers' phone numbers were noted for follow up and possible inclusion in the study. Two research assistants who are both master's holders from the University of Ghana were recruited and trained to assist in collecting the data. An information sheet was prepared for the participants stating clearly and adequately the research topic, purpose, and objectives of the study, as well as how confidentiality and anonymity of their information were handled. The participants who had phones then contacted via phone call to schedule the date and time for the interviews. Those mothers who not contacted through phone call were visited by the researcher to plan for the date and time for the interview.

The participants who consented and could read and write were given informed consent forms to sign while those who could not sign were assisted to thump print. Participants who consented to be part of the study were given informed consent forms to sign before they were interviewed. The interviews were all done in Mampruli then audio recorded with the consent of the study participants with interviews lasting between 25 and 45 minutes. Preconceived ideas and personal views of the researcher about the INC practices in the home were "bracketed" by writing them down and sharing with the supervisor to prevent the researcher's bias. In addition to interview and recording, nonverbal messages, date, time and place of the interview were recorded as field notes to support and enrich the data. Data were transcribed verbatim to English by the researcher. Headphone was used to listen to the audios during the transcription process thereby preventing people around from listening to the audios.

3.7 Data Management and Analysis

Pertaining to data management, field notes, audio recordings, and transcripts which were stored in a personal computer of the researcher and on a CD- ROM, were managed manually. They were also stored in a locked cabinet in the researcher's office and password protected on the researcher's personal computer to prevent access by other persons. Only the researcher and the supervisors had access to the data. Each participant was given a pseudonym to promote easy identification by the researcher and to ensure confidentiality of the information. The data will be kept for a period of five (5) years by the researcher after the completion of the study to ensure its availability when the need arises and destroyed afterward by burning the transcripts and deleting the audio tapes.

Data analysis was done concurrently with data collection to ensure accurate interpretation of data. The data were analysed using thematic content analysis (Anderson, 2007). Initial interviews were transcribed verbatim, read and re-read many times which gave direction for conduct and questions of subsequent interviews to get better responses and outcome. The researcher then compared transcripts with the field notes taken for consistency and revision. Transcripts were read again and again to get in-depth meaning which aided the researcher to bring out ideas, thoughts, and concepts together.

Coding was done where phrases, sentences, statements and paragraphs of interest to the researcher was extracted and assigned codes. The coded passages were compared and codes with common elements grouped to form major themes and sub-themes (Bradbury-Jones, 2007). Data was further checked to see whether the right themes and sub-themes were accurately formed. When the researcher and supervisors were convinced with the codes, themes, and sub-themes produced, final copies were printed out and cross-checked again.

3.8 Methodological Rigour (Trustworthiness)

Methodological rigor in qualitative research examines the extent to which findings of the study truly represent the perspective of the participants (Grove, Gray, & Burns, 2015). To enhance the trustworthiness of a study, Lincoln and Guba (1985) provided 4 sets of criteria that can be used for that purpose. The criteria include; credibility, transferability, dependability, and confirmability.

Credibility- this is an evaluation of whether or not study findings represent a reliable conceptual interpretation drawn from the original participant's data (Lincoln & Guba, 1985). It further assesses whether the study findings make meaning and accurate representation of the participants (Rolfe, 2006). To achieve credibility in this study, the researcher made sure she recruited participants who met the inclusion criteria. The credibility of the research was also maintained by pre-testing the interview guide which helped to modify some of the questions. Prior to conducting the interviews, the researcher had met the participants on two occasions to familiarize herself with them. This made the participants feel relaxed during the day of the interview. The interview was a face-to-face encounter which enabled the researcher to do more probing and this yielded more in-depth information. Data were audio-taped and transcribed verbatim noting the tone of voice of participants. To further ensure that the study was credible, member checking was done by tracing the participants to confirm the accuracy of transcribed data and emerging themes. Finally, debriefing sessions were held with supervisors to ensure that the questioning style and interviewing skills were appropriate.

Transferability – this is the degree to which study findings can be replicated or transferred beyond the initial boundary of the study. This was ensured by giving a clear description of the participant's selection process and a detail description of the study setting and how the entire study process was conducted to enhance the applicability of findings.

Dependability- this is an assessment of the quality of the integrated processes of data collection, data analysis and generation of theory (Hamama-Raz, Hartman, & Buchbinder, 2014; Lincoln & Guba, 1985). The researcher addressed dependability by implementing data analysis systematically, based on participant's narrations. This increased the dependability of the study (Lincoln & Guba, 1985).

Confirmability- This refers to the extent to which other researchers can confirm that the findings of the study indeed reflected the participants' voice and not the researcher's own biases or perspectives (Polit & Beck, 2010). To ensure this, the researcher kept an audit trail comprising of field notes, audio recordings, analysis notes, and coding details. A personal journal was also kept and all motivations, preferences, and assumptions which were likely to influence the research process were documented.

3.9 Ethical Considerations

All research comes with some ethical and moral challenges which must be identified and addressed before any research is conducted (Rogers, 2008).

Ethical clearance and approval were sought from the Institutional Review Board of the Noguchi Memorial Institute for Medical Research of the University of Ghana. Permission was also sought from the district health directorate and the management of the Baptist Medical Centre with an introductory letter attached as Appendix B from the school of nursing and midwifery, University of Ghana to recruit participants for the study. An information sheet was prepared for the participants stating clearly and adequately the research topic, purpose, and objectives of the study, as well as how confidentiality and anonymity of their information would be observed. Also, risk, benefits, and compensation packages were vividly explained to participants.

The privacy of study participants was ensured by arranging with them the appropriate and convenient place chosen by study participants. The venue agreed upon was known to only the study participants, research assistants, and the researcher. The venue was arranged in such a way that no other person heard what was discussed between the study participant and the researcher.

The anonymity of participants was ensured by using pseudonyms to avoid easy identification. Study participants were told to avoid mentioning their names and addresses during the interview to prevent easy identification. Demographic data of study participants was also separated from transcripts and stored separately and codes assigned to each data collected immediately to avoid easy identification.

Data collected was kept confidential and safely by the researcher and used only for the research purpose. Information provided by the study participants was not shared with a third party. Audiotaped information was kept in a CD- Rom and duplicated to prevent data loss and the CD-Rom along with other documents such as transcripts, field notes, and diaries were kept in a locked cabinet and accessible to only the researcher and supervisor. The data is to be kept for 5 years and destroyed afterward by burning.

The right and dignity of study participants were ensured by explaining the objectives of the study to participants and their consent obtained (Information sheet and consent form attached as Appendix D before taking any information. Participants were made aware that they had the right to decline to take part in the study if they felt like doing so and were also told of their rights to withdraw from the study at any time.

CHAPTER FOUR

RESULTS/FINDINGS

This chapter presents the findings of the study. The findings are presented based on the objectives of the study and the following themes: identified indigenous newborn care practices, the attitude of primiparous mothers, cultural beliefs (significant others) of primiparous mothers, perceived behavioural control of primiparous mothers, intention of primiparous mothers, behaviour of primiparous mothers and knowledge deficit on essential newborn care. The demographic characteristics of the participants are presented first.

4.1 Demographic characteristics of participants

A total of twelve (12) primiparous women with babies within twenty-eight (28) days participated in this study. The participants were interviewed on their INC practices at their individual homes and villages/towns in the EMD. The ages of the women ranged between 18 and 30 years and they were all married. All the participants are Mamprusi by tribe which is the indigenous language in the EMD. Out of the 12 participants, six (6) had no formal education whilst six (6) had various levels of educational background. One (1) participant managed to complete senior high school (SHS) making her the only participant with the highest educational qualification. Two (2) participants also completed Junior high school (JHS) and the rest three (3) participants ended at the primary school level.

4.2 Organisation of themes

The themes were organized based on the objectives of the study and were also consistent with the constructs of the TPB (TPB). A total of seven (7) main themes with 17 sub-themes were identified from the data. Five (5) of the main themes were consistent with the model used whilst

two (2) major themes were not consistent with the TPB. The sub-themes are categorized under the seven (7) main themes.

Table 4. 1: Themes and Sub-themes

No.	Themes		Sub-themes	Codes
	Theoretical	**Emerged**		
1.		Identified INC practices	a) Care of the cord b) Feeding c) Bathing	IDE
2	Attitudes of primiparous mothers towards INC practices		a) Positive Attitudes b) Negative Attitudes c) Mixed feelings	ATT
3	Cultural beliefs of primiparous mothers on newborn care (INC) practices		a) Beliefs before birth b) Beliefs after birth	CUL
4	Perceived behavioural control of primiparous mothers on newborn care (INC) practices		a) High perception of control b) Low perception of control	PBC
5	Intentions of primiparous mothers		a) Intentions to continue the family tradition.	INT

	on newborn care (INC) practices		b) Intentions to obey expert advice c) Intention to produce adequate BM	
6	Behaviour of primiparous mothers towards newborn care (INC) practices		a) Beneficial practices b) Harmful practices	BEH
7		Knowledge deficit	a) Ineffective education on essential newborn care by nurses	KNO

4.3 Identified INC practices

In many African communities, indigenous practices such a bathing babies with herbs, massaging with shea butter, applying shea butter to the umbilical cord and feeding babies with herbs are regarded as things that have been handed down from generation to generation and are held with the utmost respect. These are practices that are commonly observed across every family. Most newborns are being cared for using these indigenous practices in this current study. The first emerged theme that was not consistent with the model is identified indigenous newborn care with care of the umbilical cord, feeding of the baby and bathing of the baby as sub-themes base on the findings.

4.3.1 Care of the umbilical cord

Cord care is so important after the birth of a baby. Newborns are at risk of developing neonatal sepsis if proper care and attention are not provided to the umbilical cord. However, some of the primiparous mothers were not too concerned about cord infection but rather how long the cord should stay on the newborn. In this study, it was revealed that almost all the women engaged in several indigenous practices with regards to the care of the baby's cord. The women argued that applying indigenous substances such as shea butter, toothpaste, fowl faeces, and chalk made the umbilical cord to detach and heal more quickly than a cream that was given to them at the hospital after discharge. According to them, the umbilical cord must drop within seven (7) days before the child is given a name. Akos had this to say;

> *"The traditional practices are good. For example, the fowl faeces mixed with chalk and shea butter allowed the baby's cord to fall faster than the hospital cream".* ***(Akos)***

Sika shared a similar story and added that the baby cannot be given a name while the cord was still on and so, the cord must drop within seven (7) days.

> *"The umbilical cord should be dropped within 7 days before the naming ceremony day. So, we had to apply shea butter mixed with salt and fowl faeces and within 3 days it dropped. But we now apply the shea butter and powdered roots after the cord dropped to help the wound heal well".* ***(Sika)***

Kofimame also shared a similar story;

> *"The cord dropped within 3 days when I applied the shea butter with toothpaste".* ***(Kofi Maame)***

Other women revealed that the cord was a source through which evil spirits can cause harm to the baby and everything possible must be done to make it drop before the seventh (7^{th}) day. Naana shared her story;

> *"I applied the ointment from the hospital when I got home, but my mother-in-law advice I use shea butter and fowl faeces. I had to obey since the cord was delaying and we needed to name him on the seven (7) day. According to our tradition, it is a source through which evil people can pass and harm the baby during the ceremony".* ***(Naana)***

4.3.2 Feeding of the baby

Feeding is very vital for all human beings, especially newborn babies. The kind of food one is supposed to eat depends on the age of the individual. The recommended food for newborns is only human breastmilk and mothers are also advised to feed babies within the first thirty (30) minutes most importantly with the first BM (colostrum) that comes out due to its enormous benefits (WHO, 2017). However, the majority of the women carried out certain indigenous practices which deprived newborn babies of the valuable substance called the "liquid gold" (colostrum) and the required amount of breastmilk. According to these women, their mother-in-laws did not allow them to feed the babies colostrum because the first BM that comes out is contaminated with sex which causes abdominal colic. These women also had a problem with the colour of the colostrum which they indicated that BM should be whitish and not yellowish.

Nanama had this to say;

> *"After I delivered at the hospital, my mother-in-law took me to the bathroom and express the yellow BM away. She told me that the yellow milk is contaminated with sex and if given to the baby it will cause abdominal pain for the child. She said good BM should be looking whitish and not yellowish". (**Nanama)***

Nanama again had this to add;

> *"I didn't also breastfeed the baby until after the call of 3 Azans (Islamic prayers). The elders always say that for a child to be patient, he/she must be trained from childhood. So, when the child is not fed for that number of hours it makes the baby learn to be patient and pious**". (Nanama)***

Other women who believed the BM was not satisfying their babies gave additional feeds such as cow milk, porridge honey water, shea butter water, herbs, and saltwater. This was what Dede reported;

> *"The baby is allowed to suck well but if he does not get satisfied, then cow milk and honey water are added. Sometimes, we even feed him with porridge." **(Dede)***

Some of the women also expressed their concerns regarding the nature of human breastmilk. These women asserted that BM was watery and causes thirst in newborns just as cow milk does. They believe giving additional feeds to their babies will make them sleep well and for longer hours. This was disclosed by Kofi Madame

> *"I don't think the BM alone can satisfy the baby that is why we add water mixed with shea butter and some herbs for him to drink. After sucking and toping up with the shea butter water or herbs, in fact, he always sleeps for a long time. Actually, when you look at the milk it is not any heavy food like T.Z or porridge. It looks watery and makes the baby's throat always dry like cow milk. Besides giving it alone doesn't let the baby become full".* ***(Kofi Madame)***

4.3.3 Bathing of the baby

The women had a lot to share concerning bathing of babies. They disclosed what was done before, during and after bathing the baby. Some mothers were unhappy about some of the things their mother-in-laws did. Other women were also pleased with the practices they used in caring for their babies. The indigenous practices commonly used where bathing and feeding the babies with herbs, massaging with shea butter before bathing and wrapping the babies tightly after bathing to provide warmth. Some also indicated how the baby was bathed with both hot and cold water at different times. According to the women, bathing the baby with herbs or cold weather makes the baby grow strong bones, fat, active, intelligent, beautiful, and can withstand rain or cold water later in life. Dede had this to say;

> *"I was not always happy whenever my mother-in-law had to throw my baby up and down after bathing. I was afraid one day she will miss and the baby will fall to the ground and who knows what will happen to him. She said that will prevent the baby from fainting when someone throws him up one day"* ***(Dede)***

Similarly, Sika also revealed this;

> *"For me what I didn't like during the bathing of my baby was when my mother-in-law will fold the baby as if she was a smoked fish or fowl and will say that the baby will become flexible when she grows up. I will not do that to my baby when I take over the bathing. But after bathing him with the warm water she will wrap the child tightly with*

> *heavy clothes which keeps the baby always warm. I think that way is better than folding."* ***(Sika)***

The mothers who had no problem with the mode of bathing their babies had this to say:

> *"Bathing the baby with cold water at night make the baby strong and does not fear rain water or any cold water at all. The hot water bath makes the skin fresh and shining, the baby also grows fat and intelligent especially when you massage him with shea butter before bathing him.* ***(Akos)***

Some of the women were also happy with bathing babies with herbs and asserted that herbs were good since it makes the babies grow strong bones. Kofimame shared this;

> *"The baby was bathed immediately after birth with boiled herbs and shea butter. He was massage very well to relieve tiredness and we have continued such bathing since we got home and this makes the bones very strong".*

4. 4 Attitude of primiparous mothers towards INC practices

The joy of every married woman is to give birth to a child and be able to adequately care for her baby to become strong and healthy. This, however, depends on the woman's attitude towards newborn care. The current study revealed women's attitude towards INC practices to be positive, negative and mixed feelings. Women who evaluated these practices to be good had a positive attitude and carried them out voluntary whilst those women who regarded the practices as bad had negative attitudes and were unwilling to engage in the care. It is, however, worth noting that women who had problems with aspects of the practices expressed mixed feelings towards these practices.

4.4.1 Positive attitude towards INC practices

The majority of the women expressed positive views concerning indigenous newborn care. According to them, they even think the indigenous practices are beneficial to their babies and prevent babies from getting sick than hospital care. Some of them claim that what they are

doing now is nothing different from what their mothers used in caring for them. These women held strong views that the traditional practices make their babies grow strong, active and healthy and for this reason will continue to use these practices. Other women also revealed that even when the child gets sick it is the hospital treatment that works better and some conditions are not for hospital treatment. Some of the women also asserted that health workers need to learn more about these practices and apply to their daily works instead of abusing them whenever they visit the facilities. This is what Abena shared about traditional practices.

> *"Our traditional practices are very good but the hospital workers will always insult you if the child is sick and they find out that you have used these things on the child. You should talk to the hospital people to try and learn more about our traditions so that they will understand some of these things and always be gentle with us when we come to the hospital".* ***(Abena)***

Akua revealed a similar story;

> *"The traditional practices are beneficial because they help the baby grow well and strong and I think I will continue using them to care for my baby".* ***(Akua)***

Some the women had this to share about how they feel about these indigenous practices. Akos had this to say;

> *"The herbs make the baby strong and prevents the child from falling sick. So, they are good after all our mothers cared for us the same way and many more and we are alive. I will say, they (indigenous practices) are all good".* ***(Akos)***

Other women also indicated that they use these practices because they are cheap, effective and readily available and even after receiving hospital care will still go in for local treatment upon getting home. The women added that they will sometimes go to the hospital when the baby gets sick but did not hesitate to add that some conditions in newborn are not meant for the hospital. Mafia had this to say;

> *"The hospital way of care is good but I believe in the home care, because when you go to the hospital and they give you treatment, upon reaching home you always put the medicine aside and look for the local way of treatment. The traditional way of care is cheap, effective and readily available".* ***(Mafia)***

Abena shared a similar story;

"I believe in them (indigenous practices) because they really help us. We will go to the hospital but we will not abandon our tradition. There are times the child would be suffering from stomach pains and the treatment should be done using the herbs soaked in a calabash or earthenware bowl which brings massive results. Hmmm, not all sickness is for hospital". ***(Abena)***

4.4.2 Negative attitude towards INC practices

The women who evaluated some of the indigenous practices as bad expressed their displeasure about how the elderly women have to throw their babies up during bathing. According to this group of women, they wish some of this behaviour could be stopped. This was what Ohemaa had to say:

> *"Some of the traditional practices are not good at all and left with me alone the elderly women should stop using them on our babies. For example, the way my mother-in-law always throw the baby up and down after bathing is very bad. I always feel a deep prick down my heart whenever she throws the baby like that.* ***(Ohemaa)***

The women who also did not agree with the use of some of the practices asserted that some type of herbs used in bathing babies could be spiritually manipulated for the child to grow and put up behaviours that might not be pleasing to their parents. Ama cited herself as an example of how the herbs made her very stubborn.

> *"The herbs are not good, we shouldn't use them on our children. They (herbs) make the child put up certain behaviours that are not pleasing to you. For the herbs, I am an example. They bathed me with the herbs when I was little and actually, I was very stubborn, I was not respectful. My behaviour wasn't pleasing to my parents. I was someone who wouldn't listen to advice or caution. Left onto me, I don't need any of them (indigenous newborn practices)".* ***(Ama)***

Similarly, Yaa disclosed this;

> *"To me, some practices are not good. Because some of the herbs used to bath the baby can be spiritually manipulated by someone which can affect the behaviour of the child when he grows. You can sometimes trust someone to bring herbs but the person will not bring you good ones and because you don't know the herbs and when you use it, it will harm the baby".* ***(Yaa)***

Other women lamented over the way babies have to be inflicted with pain just in the name of giving them marks as a family identity. This group of women was also against the early shaving of the baby's hair before the child is given a name just because that type of hair is regarded as vagina hair and the child can be harmed through this hair. According to them, the baby's hair protects the child against the windy weather especially the area that they found themselves.

Akos revealed this;

> *"For me, I will continue with what I have done so far (traditional practices) but giving marks to babies when they are sick and shaving the baby's hair during the naming is not good. These babies have just come to the world and they have to be cut with sharp objects causing unnecessary pain to these children. The baby's hair is also shaved on the 7th day because that type of hair is seen as vagina hair and bad people can harm the baby through this hair. But to me, I think the hair protects the baby from the bad weather. You know around this time the wind is still strong although the weather appears hot".* ***(Akos)***

4.4.3 Mixed feeling towards INC practices

Some women had concerns about some aspects of the INC practices. These women do not have a problem with bathing babies with herbs but their worry has to do with the type of herbs used. They argued that some of the herbs are bad and can cause the baby to become stubborn, disrespectful and a thief whilst on the other hand they think using the right herbs to bath a baby will make that child grow well and strong. Naana revealed this;

> *"Some of the herbs used in bathing babies are not good at all while some herbs are good. The child becomes stubborn and disrespectful later in life when you bath them with bad herbs. The child may even become a thief because she will like to fight anybody who looks for her trouble and with time the child will begin to steal but when you use the right*

herbs to bath your baby, in fact, you will be glad seeing your child grow well and strong. ***(Naana)***

Kofimame also expressed her mixed feelings towards these practices in a different way;

"Bathing babies with herbs makes the child beautiful and I can see this in my boy. Using shea butter to massage the child makes the skin fresh and the baby grows fat. So, I think they are good but the only thing I don't like is the folding of the baby when my mother-in-law is bathing him". ***(Kofi Maame)***

She further had this to add:

"For us, we don't give food to the baby because he is very small to eat food but most of the things, we do are our traditional care and they are very helpful to the child and I think I will continue using them. But I will say some of the practices that will harm the baby should be avoided". ***(Kofi Maame)***

Sika on her part had this to share:

"Giving water to babies to drink is good for the child because everybody needs water to survive but what I don't like is making babies to drink herbal water, cow milk or honey. The baby cannot eat, why do we give these things to them? Hmmm, for me I will not give them to my baby to drink except water". ***(Sika)***

4.5 Cultural beliefs (subjective norms) of primiparous mothers on INC practices

Most African societies hold their cultural beliefs in high esteem. Hence, the kind of belief a woman holds can influence the care that will be rendered to her newborn baby. It was therefore not surprising to identify several cultural beliefs and practices the majority of women held about indigenous newborn care. Some of these beliefs were not only their personal beliefs but also the beliefs of significant others. Their beliefs were categorized into beliefs before birth and beliefs after birth.

4.5.1 Beliefs before birth

There were several beliefs the women held before the birth of the baby. Beliefs about the protection of the unborn baby against any harm from evil spirits were one of the major concerns the women raised. Some of the women held the belief that no one should know

about the pregnancy in order to avoid harm to the unborn child from evil people. Others also believe that it was a bad omen to buy the baby's things ahead of time before he or she is born. Some of the women even avoided eating some type of fish that was believed to cause slippery skin to the unborn child since the fish had a slippery body. However, foodstuff that was believed to help the breastfeeding mother produce adequate BM were bought down before the child was born.

Abena disclosed what she was advised to avoid some foods during her pregnancy;

> *"They told me to eat well especially vegetables but I should avoid eating some kind of fish we call mad fish. This type of fish is slippery and that if I eat it, the baby's body will be slippery after delivery. Actually, it is a taboo to eat that type of fish in our tradition and I was aware of it".* ***(Abena)***

Yaa shared this concerning her belief about not buying things for her unborn baby;

> *"I did not buy the baby's things because they say is a bad omen to buy a child things when you are still pregnant. You only buy her things when the baby is born. I only gathered the necessary items I needed for the delivery and my husband gave me money to buy enough foodstuff that I will eat for enough BM for the baby to feed well when she is born".* ***(Yaa)***

Similarly, Naana revealed this;

> *"Hmmm, it is a taboo to inform people outside your family about your pregnancy until the child is born. If you let outers know before this time the baby can be harmed before he or she is born".* ***(Naana).***

Yaa narrated how she had to go and stay with a woman at a different town to undergo certain rituals when she was pregnant for the protection of both mother and unborn baby since that was a family tradition.

> *"For our tradition, when you are pregnant, you have to go to one woman at Gambaga and she will do all the necessary things that will protect you and the baby. She will give you some herbs to drink and keep some for the baby. She will also pour a libation on your behalf so that you will give birth safely. She will look into the future of the unborn child to see what kind of baby he/she will be. If she finds out that the baby will be a very bad person in the society, then after you give birth you will bring the child back there for certain rituals to be performed to revoke that bad spirit in the baby so that he/she will grow well. But for my baby, she said he was going to be a good person to society".* ***(Yaa)***

Akua, on the other hand, stated that libation had to be poured to the family gods for protection before the birth of the baby. She also had to drink some herbs prepared by her father-in-law to give strength to the baby for easy exit on the day of delivery.

> *"My father-in-law consulted the gods and poured libation for the protection of my baby when the child comes out. He also gave me some herbs to drink and said that it will give my child strength to be able to come out without any problem".* ***(Akua)***

4.5.2 Beliefs after birth

Every woman is delighted after successfully giving birth to a live baby. This delight becomes complete when a mother begins to see her child grow into a beautiful girl or handsome boy. For this reason, several beliefs about the safety of the child begin to come to play. This was evident in the current study where almost all the women held one form of cultural belief or the other in the care of their babies. The mothers had the belief that people with evils eyes or evil spirits can harm the newborn especially when the baby is fair in complexion or fat and these evil people exclaim because of the appearance of the baby. The best way to protect the child against such things is to pour mercury over the head of the baby, place Koran (Islamic book), needles, and a knife under the pillow of the baby. The women also indicated that some marks called "*Nangbantori*" (bitter mouth) are also drawn on the door of the room the baby and mother stay in order to prevent bad spirits from harming them (mother and baby).

This was what Ama did to protect her child from bad people;

> *"When you give birth and the child has a lot of weight or fair in complexion, people exclaim. We believe that when people exclaim because of what they see it can make the child lose that beauty or appearance. So they drew certain marks known as 'Nanbgantori' (bitter mouth) in the room and placed needles and Holy Quran under the child's bed".* ***(Ama)***

Another woman shared a similar story as below;

> *"Because the child will be taken out after giving a name, mercury is poured over the baby's head to also repel evil spirits. My mother-in-law did Nangbantori which is in a form of herb and set charcoal fire and put the herb in it and placed by the head of the baby so, that while the smoke comes out the baby inhales it. This was also done to protect the baby from evil eyes".* ***(Akua)***

Some women also held several beliefs about breastfeeding of the baby. The mothers disclosed about the belief that a lactating mother must have the smell of BM when she passes by and in case you walk and pass and the smile of BM is not noticed, then it is an indication that the woman has a bad BM that is not good for the baby to suckle. The treatment is for the woman to go to the herbalist for purification of the breastmilk. Both mother and baby during the purification will be made to drink some concoctions and the woman is restricted from eating certain kinds of vegetables.

> *"My in-laws realized that the child was crying during breastfeeding and there wasn't any scent of breast milk when I pass by. She realized my breast milk was not good and had to contact someone to correct for me. During the treatment, I and the baby had to drink a sieved solution of green herbs, millet, and cow milk. I was also told not to eat any vegetable that appears slippery after cooking".* ***(Abena)***

For mothers to produce adequate breastmilk, they were restricted to certain kinds of food that were believed to help mothers produce enough BM for the baby to suckle. The foods that were

believed to inhibit BM production and also have some effects on the baby were avoided completely.

> *"You have to take millet water, saltpetre porridge, and groundnut soup with so much pepper for adequate flow of breast milk. The old women always say that gives enough breast milk for the baby to suckle.* ***(Dede)***

Mafia also shared her side of the story;

> *"My mother-in-way said, some kind of foods are not good for me to eat because I am a breastfeeding mother. That I should not eat okra whether dry or fresh okra. It is believed that the okra prevents the flow of breastmilk. She also said that I should not drink cold water because my stomach will pain me and the baby will not get BM to suck. She said the milk will be watery which will not satisfy the baby making him lose weight.* ***(Mafia)***

Other women also indicated that their mother-in-laws welcomed their babies with some concoctions. According to the women, until the baby drinks the concoction, he or she is not recognized as part of the family but regarded as a stranger.

> *"My mother-in-law welcomed my baby with some concoction that was looking very greenish in colour. She said after the baby drinks it the child becomes part of the family. Actually, in our tradition, every baby must drink this concoction before he/she is seen as a member of this family. It is a taboo for you not to welcome the newborn with this concoction".* ***(Akos)***

Another belief that the women spoke firmly about was that a baby should not be taken outside the home when he or she does not have a name and also after 6 pm. It was seen as a source which the baby could be harmed especially during the evening hours. Yaa had this to share;

> *"The baby is not also allowed to go out when he or she does not have a name. Some families send their children to the hospital before the name is given but others wouldn't allow. For me I did not also send my child out after 6 pm in the evening and before the name was given. When the baby is not having a name and you take him out, evil people can harm him but when given a name, it is very difficult to harm the child".* ***(Yaa)***

Other women reported this regarding spiritually protecting their babies through bathing with some kind of herbs. Naana revealed this;

> *"The "Vobeo" (bad leaf) herb repel all bad or misfortune in the life of the child. This herb was added with garlic and used to bath the baby for 4 four days because she is a girl but if it was a boy, he will be bathed for 3 three days. You know witches fear the smell of garlic, so when it is added to the herbs, then you are sure your baby is protected.* ***(Naana)***

Significant others such as mother-in-laws, husbands, fathers-in-law, and friends around the primiparous mother determine the extent to which these cultural beliefs would be adhered to.

From this part of the country, in-laws especially mother-in-laws have the maximum authority over the care of their grandchildren and many young women fear to face the consequences if they disobey or disagrees with any instructions given by these grandmothers. Similarly, husbands even have little control over the care of their babies, in fact, their mothers have the final say. Hence, these grandmothers thereby influence the care of the newborn with the kind of beliefs that they attached so much importance to. Akua reported this;

> *"My mother-in-law has great influence over the care of the baby. What she says is what I do. You know in this part of the world; your husband's mother has the greatest say when it comes to the care of your child. Even your husband can't do much without consulting his mother. Childcare especially a fresh baby is the sole responsibility of the grandmother due to their past experiences".* ***(Akua)***

Abena shared a similar story;

> *"Most of the practices used to care for the baby were ordered by my mother-in-law and you the mother have little to say when it comes to the care of your baby".* ***(Abena)***

Some women shared their fear of losing their children if they refuse to obey the rule of the old women in their homes as reported by Yaa,

> *"If the elders say you should not take him out and you still do, then if anything happens to the baby no one will mind you. I wanted to send him for weighing but I couldn't take*

> *him out because of what the old women said. My mother-in-law told me about a lady who took her baby to the market before the naming day and before she got home the baby passed on. Sometimes if nothing would have even happened but if you disobey them, someone can harm the baby and say is because of that".* ***(Yaa)***

Ama disclosed how her husband brought home some herbs for them to bath the baby but that was not done because her mother-in-law and father-in-law rejected the idea. She shared this;

> *"Some time ago my husband went out and came back with some herbs for them to bath the child but his mother and father refused and said they don't use herbs to bath children in their house nor in the family since the herbs are from another home, they might be bad so they shouldn't use them".* ***(Ama)***

4.6 Perceived behavioural control of primiparous mother on INC practices.

The ability of a mother to have total control over the care of her baby is very significant to building the confidence of a first-time mother towards newborn care. Due to the inexperienced nature of primiparous women in the care of newly born babies, the majority of these women turn to rely mostly on the elderly women especially mother-in-laws for advice. However, some first-time mothers have control over the care of their babies and will go any length to see to it that some indigenous practices perceived as harmful are not used to care for their babies. Two sub-themes emerged strongly from perceived behavioural control. These include; high perception of control and low perception of control.

4.6.1 High perception of control

In this study, women who regarded themselves as having high control over the care of the newborn expressed their ability to carry out indigenous practices without any form of difficulty. According to these women, with family support, their past experiences, the efficacy of practices and the benefits their babies derive, motivate them to comply with the indigenous practices.

> *"It is not difficult practicing traditional care because I know it helps my baby to grow well and my mother-in-law helps me to care for my baby to grow very strong and active. I can use them to care for my baby even when my in-laws are not around".* ***(Akua)***

Due to the past experiences of Abena, she had this to share;

> *"To me, I will say there is no form of difficulty in carrying out these practices because they are already things that I know and heard from our parents already. In fact, all the practices I used were things I have heard before and since my baby has benefited a lot from our traditional way of care, I will allow my mother-in-law to use them on my baby".* ***(Abena)***

Abena could not hide her joy and had this to share as to why she is motivated to comply with these indigenous practices.

> *"I know people who used these things and it was helpful to the growth of their children. I will add that they are very helpful to the growth of my baby, which is why I use them. Since I followed what my mother-in-law has instructed me to do my baby is now growing well and I am happy".* ***(Abena)***

Another woman disclosed how potent these practices were and why she was motivated to comply with the indigenous way of care.

> *"It is because they (indigenous practices) are very helpful. I'm happy using them because, when I delivered my baby, he was very small but after bathing and feeding him with the herbs and also massaging him with the Shea butter; oh, I'm glad for my baby. Whenever we go for postnatal the baby's weight is usually good and the nurses are always praising me.* ***(Yaa)***

Contrary to what other women termed as beneficial, Ama on her part viewed these practices as harmful and would not permit any herbs to be used to bath or given to her baby since she is not supposed to give water to the child until after 6 months and that is what she intends to adhere to.

> *"I will never allow it. We've even been advised that a child should not take water until after 6 months, so when they are bathing him and I am around I don't allow them to give him water. I don't permit it at all, no one gives my boy water. If it was the olden days, their ancestors knew the things better but for now, the things are not good. I don't just want to use them. Their effects are very bad".* ***(Ama)***

4.6.2 Low perception of control

As mothers try so much to decide what happens to their babies, mother-in-laws assume maximum control over the care of their ground children. Various situations such as anticipation of upcoming circumstances, attitudes of the influential norms that surround the individual and outcome evaluation were things that compelled the majority of the women to engage in these indigenous practices as indicated. Women sometimes become helpless in preventing the use of these practices despite knowing the negative effects of some of the practices. Obedience to them is the only way they can enjoy their marital life. Some of the women disclosed that they know about the harmful effects of some of the practices but are unable to stop their mother-in-laws from using them on their babies due to fear of losing their marriages.

Dede gave an account of what happened to her upon reaching home after she gave birth and was discharged from the hospital.

> *"When I got home with my baby, my mother-in-law took a calabash with boiled herbs to feed my baby and when I resisted and told her it was not good for the child to drink water, she got angry at me and told me that if not for the baby she would have chased me out of the house because I don't respect and think I know it all. Hmmm, my sister, I didn't know what to do than to apologize and allow her to carry on with what she wanted to do, I just had to obey".* ***(Dede)***

Nanama also shared her ordeal;

> *"Some of these practices are not good and when I don't allow my mother-in-law to do them, she will just sit and be watching me as if you I am a bad person. One day, she brought salt and fowl faeces to apply on the baby's cord for the reason that it was delaying and when I told her not to do since the baby can get sick, she just ignored me as if I didn't exist. So, I also kept quiet and watched her, after all, she is the child's grandmother and has the final say. I don't have much to do about it".* ***(Nanama)***

According to some of the women, they just had to follow instructions for the sake of the welfare of the babies.

> *"The way the indigenous practices help the baby is why I will keep using them. Even if I don't want to use them, I can't prevent it because I have no power over the care of the*

> *baby. I am only her mother but I don't own the child, I just do as I'm told to do".* ***(Nanama)***

Some women did not have a problem using the practices. Their only difficulty had to do with some aspects of the practices that they regarded as causing some inconveniences and yet has no power to change anything.

> *"There are no difficulties in carrying out these practices because they help the baby to grow well and strong. Just a few of these practices have some inconveniences example, when you go out and come back, you can't breastfeed immediately but has to wash your breast before breastfeeding with the reason that you might have stepped on bad medicine placed on the road and this can affect the baby spiritually. So, when the baby is crying too much you may forget and breastfeed him and at the end, something bad will happen to the child. That is some of the challenges with our traditions and I am only a woman, I can't change anything".* ***(Akos)***

Kofimame also gave her side of the story;

> *"For me, there are no difficulties in practicing these things. It was only a day to the naming of the baby that his father took her to a shrine at night to perform some rituals. Actually, I was afraid for the child because he didn't allow me to follow him. If I could change this aspect of our tradition, then I wouldn't hesitate to do so but I have only given birth but I don't have authority over her care".* ***(Kofi Maame)***

Whilst the majority of the women attributed their low perception of control to attitudes of influential norms surrounding them, some shared a different view about their inability to carry out the indigenous practice as a result of their lack of strength, money and inexperienced when it comes to newborn care. Mafia reported this;

> *"You know with the boiling of the herbs, you need water and firewood to boil it but when you deliver fresh you don't have enough strength to go and fetch firewood. So it makes it difficult because you have to buy this thing just to bath the baby and there is no money. When my mother-in-law also says anything, you will like to follow it since you have no experience in the care of a new baby".* ***(Mafia)***

4.7 Intention of primiparous mothers towards INC practices

Every mother has some form of intentions or plans to continue with a kind of care she has evaluated to be beneficial for her newborn child. The majority of the women expressed their intentions towards the use of indigenous practices to care for their babies in various ways. According to the mothers, they had the intention to continue with family tradition, intention to obey expert advice, intention to produce enough BM and intention influenced by significant others.

4.7.1 Intention to continue the family tradition

People hold dearly what has been handed down to them from generations to generations and will do everything possible to keep these things from being lost. Some women in this study expressed the desire to continue with what they called family heritage. According to them, most of the practices they used were handed down to them by their mothers and they intend to obey whatever their mother-in-laws have taught them. According to some of these women, the indigenous practices have been helpful to their babies and they have the intention of using these practices to care for their next children and also teach their friends.

> *"I will continue with these practices because they are not causing any harm to my baby. These things were used by our mothers and grandmothers before and have been handed down to us. How can we just throw away our traditions? I had planned to use these things to care for my baby when I was pregnant and I think I will obey and practice whatever my mother-in-law is teaching me".* ***(Kofi Maama)***

Abena also had this to share;

> *"Hmmm, for me I think it is good to use these practices because they have helped me and the baby a lot and I will continue to use them in case something again comes up. I will also use them to care for my next child and even teach my friends who are struggling with their babies".* ***(Abena)***

Another woman had this to say;

> *"As I said, our traditional practices are very good and help the baby to grow well. So, my next child, I will use them again. These are our traditions I know already and my*

> *mother-in-law has also thought me a lot. I think I can do them without any problem".* ***(Akos)***

Some women had to obey these family customs in order for their children to be accepted as part of the family. Until then, these newborns are regarded as strangers in their own father's homes.

> *"When I was pregnant, I knew our family god which is a python will visit the baby when I give birth. Actually, the baby will have to drink water from the shrine where the python lives in order to be considered as a family member, so I had the intention to obey this tradition when I give birth or else my baby will be referred to as "Sandow' meaning strange boy or stranger".* ***(Naana)***

4.7.2 Intention to obey expert advice

Adhering to instructions from people especially medical experts can be observed across most first-time mothers due to their inexperienced nature in the care of newborns. However, the desire to follow expert advice can be aborted as a result of influences from mother-in-laws who are regarded as more experienced in the care of newly born babies and also have the final authority over the welfare of their grandchildren.

> *"Though I knew of these practices before I gave birth, I didn't want to use them because whenever I went for antenatal the health workers will tell us not to give water to our children, put things on the cord of the baby or bath them with herbs but after I gave birth my mother-in-law started using these things and seeing how my baby is growing well, I changed my mind to use".* ***(Kofi Maame)***

Another woman had this to say;

> *"When I was pregnant I had the intention of not using these practices except the application of shea butter because the health workers said we should not do some of these things but after I gave birth and my mother-in-law started using these practices on my baby which I wanted to refuse but I was afraid she will see me as someone who doesn't respect but later when I saw that it was good for my baby, I decided to keep quiet and continue with them".* ***(Akos)***

As a result of the power grandmothers have over the care of their son's children, Yaa decided to avoid being abused by her mother-in-law and just remain quiet.

> *"For my mother-in-law, if she tells you to do something and you refuse then she will say a lot of things that will not make you happy. So, for me, I had wanted to follow what the health worker thought me when I went for weighing but hmmm, I had to quiet keep when she is feeding my baby with herbs. She said that will make the baby grow strong bones and I have really seen that in my boy. So I will just keep using these practices to care for the child".* ***(Yaa)***

4.7.3 Intention to produce adequate breastmilk

The desire to produce adequate BM for newborns is the driving force for most women to indulge in some practices that could be detrimental or helpful to their health. The majority of women would eat anything that is being regarded as a source of adequate BM production. In some tribes, it is a norm for every woman to gather the necessary foodstuff they need to eat after delivery for them to produce enough BM for their babies before these women put to birth. Again, in this period, most men become very responsible and caring for their wives and newborns. This practice can be considered beneficial to both mother and baby. However, some elderly women will one way or the other give some advice on the kinds of food that should be avoided or eaten. Husbands also pour libation to their family gods for safe delivery and adequate production of breastmilk. Mafia revealed this;

> *"I bought his dresses and gathered enough foodstuff (groundnuts, "Neri", "Bongu" and millet for salt petty porridge) that will give me enough breastmilk. My husband also poured libation to the gods to grant me safe delivery and adequate BM but the old women also say your soup must contain a lot of pepper so that the BM will flow well for the baby".* ***(Mafia)***

Similarly, Abena shared her side of the story;

> *"I bought all the necessary items I needed such as shea butter, millet for porridge, groundnut paste, "Neri", "Bongu" baby clothes and soup items. As a pregnant woman, you must buy all these food items down before u give birth so that you can eat well for your baby to get enough BM to suckle.* She laughed, *this is the only time you get maximum care from your husband oh, my sister. So if you don't enjoy with your baby now, when again?"* ***(Abena)***

Also, Akos narrated this;

> *"The family went out and consulted sooth-Sayers concerning my delivery and how to care for the baby after birth. So, after that, they told me to start buying all the things I needed for the day of delivery and foodstuff that will give me adequate BM for my baby. For me, I bought enough shea butter, millet for porridge, groundnut paste, plenty pepper because the old women said as a breastfeeding mother your food must contain a lot of pepper which helps you to produce enough BM. It is only a taboo to buy the baby's clothes before birth but for foodstuff, you are advised to get them".* ***(Akos)***

4. 8 Behaviour of the primiparous mothers towards INC practices

The safety and survival of the newborn greatly depend on the kind of care a mother provides. The care provided for the newborn can, therefore, be detrimental or helpful to the survival of the baby. Mothers engagement in practices observed as beneficial or harmful to the health of the newborn will largely depend on the extent to which a woman is willing to go to keep her baby healthy and strong. Hence, the behaviour of the women was categorized under this main theme as; beneficial practices and harmful practices.

4.8.1 Beneficial practices

Women's desire to prevent their babies from getting sick did not entirely engage in practices regarded as harmful but also practices that were beneficial to the baby. Behaviours such as putting charcoal fire in their rooms to keep baby warm, wrapping the babies with clothes, wearing them long clothing and bathing the babies with warm water were some of the strategies they adopted. Also, producing enough BM for the newborn baby to suckle was a major priority of almost all the women. In the quest to achieving this, foodstuff that helps to produce adequate BM were bought and processed down much earlier before a pregnant woman is put to bed. For the aspect of spiritual protection, mothers placed bangles around the wrist of newborns, certain

marks were drawn on the door and some even sprinkle holy water on the babies to chase away evil spirits.

> *"I had to set fire and placed in the room to keep the room always hot. Clothes were also used to wrap the baby to keep her warm after bathing".* ***(Akua)***

Yaa had this to say;

> "I *wear him long clothing and cover him well with cloths. I also set fire in the room to keep it warm. We place the charcoal fire near us and it keeps the baby warm".* ***(Yaa)***

Dede also shared this

> *"As for me, I bought a lot of food items that will help me produce enough BM when I give birth. In this community when a woman is pregnant, you must buy and prepare this foodstuff down several days or weeks before you deliver. The old woman also will advise you to be drinking warm water frequently so that the BM will flow well and you the mother will not get abdominal pains".* ***(Dede)***

Some women were much concerned about the spiritual protection of their babies and also revealed this;

> *"For me, I prepared my stuff ahead of time and when my baby finally came, she was fair and started growing fat and pulpy, so I have been sprinkling holy water on her because people will always pick her and be giving some comments that can harm my girl. The father has also worn a bangle on the writs for protection. That was what I did".* ***(Sika)***

Ama reported this;

> *"When you give birth and the child has a lot of weight or fair in complexion, people exclaim. We believe that when people exclaim because of what they see it can make the child lose that beauty or appearance. So, they drew certain marks in the room and placed the Holy Quran under the child's bed. Those marks are there to protect the child from bad comments and utterances. The Holy Quran (Islam book) repels evil spirits"* ***(Ama)***

4.8.2 Harmful practices

Almost all the participants carried out several behaviours that were detrimental to the health of the newborn. With participant's behaviours towards bathing, they bathed the babies

with all kinds of herbs, bathed with very hot water, folded the babies after bathing and also massage these babies vigorously with shea butter giving the reason that this will make the babies grow strong bones, fat, have fresh and shiny skin, active, intelligent and also protect the baby from evil spirits. Abena had this to say;

> *"We bath the baby with herbs and massage her with shea butter, these herbs make her bones grow stronger so that he will not fall sick".* ***(Abena)***

Another woman reported this;

> *"When we got home after discharge that morning, hot water with herbs was already boiled for my mother-in-law to bath the baby. The herbs when you use it to bath the baby, it makes the child be active, intelligent and the child walks fast than if the baby is bathed with only water. During the bathing, my mother-in-law always massages the baby with shea butter and fold him in one hand. She said that will make the child flexible and the bones will be strong so that when he grows up, he will be able to farm and feed his family".* ***(Kofi Maame)***

Bathing babies with herbs were not the only things done by women. Some mothers decided to also alternate the kind of water used in bathing these newborns.

This is what Sika shared;

> *"The baby was sent to a river nearby that morning and bathed with river water after I was discharged from the hospital. The child will catch a cold anytime she baths cold water later in life if we use only hot water to bathe the baby. The child was a massage with shea butter before bathing hot water towards the evening".* ***(Sika)***

All kinds of substances such as cooking oil, motor oil, powdered roots, fowl faeces mixed with salt and shea butter, cow dung, toothpaste, and chalk were used to care for the umbilical cord of babies. This was shared by Akua

> *"I applied shea butter mixed with fowl faeces and salt but after the cord dropped powdered roots and she abutter was applied to enable healing of the wound. We also sometimes apply motor oil to the cord because my mother-in-law said is very good".* ***(Akua)***

Akos on her part also revealed this;

> *"We were given a cream on the day of discharge to apply on the cord. I applied the cream for 4 days yet the cord didn't fall and I then changed to shea butter but sometimes we also apply cooking oil when our shea butter gets finished".* ***(Akos)***

Another woman disclosed this;

> *"I applied the cord with charcoal mixed with cow dung and toothpaste since the baby can't be named while the cord is still attached. People can harm him through the umbilical cord".* ***(Naana)***

The majority of women exhibited different behaviours when their babies got sick after birth. Some of the women took their babies to the herbalist for treatment while other women administered their own treatment to these babies such as bathing herbs and giving gripe water to babies to drink.

> *"I sometimes buy medicine for her to drink when she is sick but most times my father-in-law treats the family including the baby. When my baby had a cough, my father-in-law brought herbs to bath and gave to the child to drink and after I did it the cough stopped".* ***(Akua)***

Abena disclosed this;

> *"When we returned from the hospital, I realized some parts of my baby's head was not closed, so we contacted herbalist and he gave us herbs to bath the child for four days. He said it will help treat the head. After using the herbs, the breathing on the head was not easily seen".* ***(Abena)***

Another woman shared a similar story;

> *"Three (3) days after we came home from the hospital, in the middle of the night my child's head started breathing (pulsating) too much, so the father sent the baby for local treatment. Some black thick oily liquid was mixed with tobacco and applied on the head. As you can see, it is still on the head. The man said this will prevent that part from sinking.* ***(Mafia)***

Ama administers her own treatment when her baby gets sick and this was what she shared*;*

> *"Since we came from the hospital, if the baby's body is warm, we get him Paracetamol and give him some of the grip water to drink and he gets better. So, when the child is crying, it means his body is warm and when you get him the medicine and he takes it, he gets better".* ***(Ama)***

After the birth of a baby, breastfeeding becomes very vital for his or her survival. Almost all the participants breastfed their newborns with breastmilk. However, additional feeds were given to the babies giving the reason that the BM alone was not enough to satisfy these neonates. According to the women, when the babies take these additional feeds, they sleep for a longer period of time which allows the mothers to have enough rest and also do their work. Some women also disclosed that they give water to the babies because the weather is very dry and giving them water will prevent dry throat.

> *"Apart from breast milk, honey water, salt water is also given to my baby because the grandmother said the BM alone is not enough for her. My baby's stomach uses to still be flat after sucking but when we started adding honey water, salt water, and cow milk, the baby is now looking fine".* ***(Nanama)***

Kofimame had this to say;

> *"My mother-in-law gives the child water after bathing the baby. Actually, she gives just plain water but sometimes mixes some concoctions and feed the baby. She always says that the concoctions will make the baby grow well".* ***(Kofi Maame)***

Dede adds other feeds to her baby because her child looks at her when she is eating and she can't resist such a look.

> *"I feed my baby with porridge whenever I'm eating. The way the child is always looking at you when you are eating, hmm you can't eat without giving her the food".* ***(Dede)***

4.9 Knowledge deficit on INC practices

The only theme that emerged from the data which was not consistent with the model used in this study was Knowledge deficit. Ineffective education on essential newborn care (ENC) by nurses was observed by the researcher to be the cause of this problem.

4.9.1 Ineffective education on ENC by nurses

Understanding the expert's advice is key to carrying out the desired behaviour. On the other hand, wrongfully applying a certain instruction can occur when a mother does not understand what is being taught. Some of the participants disclosed that they followed the nurses' order to apply only the hospital cream on the umbilical cord. However, after the cord drops, they then applied shea butter, powdered roots and cooking oil. Some women also indicated that they give gripe water to their babies to drink since the nurses' advice against giving normal water to the child. Again, oral medications were also given to babies when they get sick before taking the child to the hospital for treatment.

> *"I applied the cream from the hospital as ordered and when it dropped, I then applied the Shea butter and sometimes cooking oil on the wound".* ***(Mafia)***

Similarly, Yaa revealed this;

> *"I gave birth through C.S and the baby could not breathe well when he came, so I was told to take care of him well. We were given a cream to apply on the cord and that was what I applied as instructed by the nurses and it dropped. But after the cord dropped, we then applied powdered roots mixed with shea butter for about a week now".* ***(Yaa)***

Ama had this to also say;

> *"When I breastfeed him and he refuses, I give him gripe water which makes him relax and helps him sleep. My colleague women say the hospital advice that since children of their age can't really drink natural water, it is good they take the grip water once a while because it helps in his health and for the fact that the child doesn't drink water, it is good".* ***(Ama)***

4.10 Summary of Findings

The study findings showed that these primiparous mothers were between the ages of 15-30 years. Half of the mothers had no formal education with the exception of one with SHS as the highest educational qualification while the rest either completed primary or JHS. All the women

were married. Almost all the women in this current study engaged in several INC practices such as care of the cord, feeding of the baby and bathing of the baby.

It was again discovered in the current study that almost all the women showed certain attitudes towards indigenous newborn care. Whilst some women evaluated the practices as positive, others exhibited negatives attitudes and a different group had mixed feelings about these practices. This group of women who showed mixed feelings expressed dislike towards some aspects of the practices. The study also revealed the beliefs of these mothers. Various beliefs such as cord care, bathing, spiritual protection, and breastfeeding were discovered by the researcher. Therefore, the researcher categorized the beliefs into two; beliefs before the birth of the baby and beliefs after the birth of the baby. Perceived behavioural control was very significant in the current study since all the women gave birth for the first time. The majority of women had a low perception of control due to the reason that they were inexperienced and also under the control of significant others around them. The women who expressed high perception of control did that with the help of their mother-in-laws.

Another important finding was on the intention of the mothers about indigenous newborn care. These mothers had several intentions concerning the care of their babies. They had the intention to continue the family tradition, intention to obey expert advice and intention to produce adequate BM. The women whose intentions were to continue family tradition indicated their readiness in using these practices to care for their next child and also teach their friends. Obeying expert advice was the initial plan of some of the women. However, this did not come to light due to influences from their mother-in-laws. Almost all the mothers prepared ahead of time what they will eat after birth for adequate BM for their newborns.

Another remarkable finding was the fact that the majority of the mothers engaged in practices that were harmful to their babies whilst other indigenous care helped in the wellbeing of the newborn. Example, bathing babies with warm water and wrapping them with clothes immediately after bathing were among the beneficial practices. Whereas, harmful practices such as applying fowl faeces, chalk, and cooking oil on the cord, pouring lead on babies head to repel evil spirits were detrimental to the growth of these babies. Lastly, ineffective education on ENC by nurses was found in this current study to be the major cause of knowledge deficit among some of the women. Those mothers who received education on how to keep the baby's cord clean clearly did not understand the instructions given by the nurses.

CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter discusses the findings of the study in relation to relevant literature. The discussion is centred on the main themes and sub-themes as presented in chapter four.

5.1 Demographic characteristics of the primiparous mothers

The women who participated in the study were between ages 18-30 years and were all married. Society expects women who are within the reproductive age group and not in school to get married and this is exactly what they did. The reason for which all these women were married could be as a result of how unmarried women with children are viewed in the northern part of Ghana. In the northern communities, a woman is considered promiscuous if the woman has children without being married. It is also worth noting that younger women between the ages of 18 to 25 who have no educational background were easily influenced by their mother-in-laws to engage in these indigenous practices than their counterparts who have some form of formal education. Interestingly, older women in the current study willingly supported and engaged in these practices. This could probably be as a result of the fact that these group of women might have observed severally their mothers caring for their younger siblings using the various indigenous practices in the community.

5. 2 Identified INC practices

Indigenous childcare plays a significant role in the survival of newborns which are commonly observed in many communities across the world. This was evident in the current study which indicated that the majority of the women expressed great faith in indigenous newborn practices than hospital care. The common indigenous practices that were found to be

used by these women in the care of their babies were care of the umbilical cord, feeding of the baby and bathing of the baby. Though these categories are important areas of child survival, the indigenous practices appear to be scared in the literature. More research needs to be done in this area to unravel more harmful traditional practices which should be discouraged or modified.

A newborn's umbilical cord must be adequately cared for immediately after birth. For this regard, clean, dry cord care is recommended by WHO for all babies born at a health facility and at home in low neonatal mortality areas to prevent umbilical cord infection (WHO, 2017). Furthermore**,** to also prevent mothers from applying harmful indigenous substances on the umbilical cord of children born at home in areas where there is high neonatal mortality, 4% chlorhexidine is recommended in the first week after birth (WHO, 2017). Despite these recommendations, the current findings discovered that the majority of women cared for newborns cord using various harmful traditional substances such as fowl faeces mixed with shea butter, chalk, toothpaste, and powdered roots. Several studies both in Ghana (Nutor et al., 2016; Saaka & Iddrisu, 2014) and abroad (Herlihy et al., 2013; John et al., 2015) also discovered that a significant number of mothers used harmful traditional substances to care for their babies cord. These indigenous substances are unsterile and can cause infection in newborns. Health education on the harmful effects of these practices should be started during the antenatal session through until the child reaches 5 years. Contrary findings in other African countries such as Ethiopia (Salasibew et al., 2014) and Uganda (Nabiwemba et al., 2014) indicates that clean, dry cord care was adopted by the majority of women who delivered both at the health facility and at home.

Again, almost all the women indicated that they were given a cream (4%) from the hospital after discharge but the cream was not effective as compared to these indigenous substances. The primiparous mothers disclosed further that the cord of newborns must drop

within seven (7) days before the baby is given a name to avoid any harm upon the child. This cultural assertion of these mothers should be strongly discouraged through well-organized health educational campaigns since these practices expose the newborn to neonatal sepsis which can lead to neonatal mortality.

Feeding is the first and most important aspect of newborn care that should occur within the first 30minutes after successful delivery to a live baby. Breastfeeding is not only beneficial to newborns but also their mothers as well. For this reason, women are encouraged to breastfeed immediately after birth to aid in the adequate flow of BM and proper uterine evolution. In some cases, adequate breast flow may be delayed for about 1 to 3 days but the continuous attachment of the baby to the breast helps to stimulate BM flow for the child to suckle. Studies have shown that the first BM (colostrum) that comes out is known to have great benefits for newborns. Colostrum has numerous benefits to the newborn in that it contains antibodies that help to build the immune system of babies against invading organisms and it is also highly nutritious and easily digested (Nethra & Udgiri, 2018).

The current study revealed that the majority of mothers followed the advice of their mother-in-laws and failed to breastfeed their babies with colostrum. The women asserted that colostrum was contaminated with sex and due to its yellowish colour can cause abdominal pains in newborns. The influence of mother-in-laws and the claim that colostrum is harmful to babies is consistent with studies in other parts Ghana (Aborigo et al., 2012; Gupta et al., 2015; Hill et al., 2010) and abroad (Nethra & Udgiri, 2018; Sharkey et al., 2017; Srikanth et al., 2017; Withers et al., 2018). The practice is bad and must be avoided since it deprives newborns of the first antibodies they get through BM after birth. Nurses and midwives should intensify health educational campaigns at the various health centres where these mothers meet. Contrary to this

finding are studies in the southern part of Ghana (Asare et al., 2018) and in Nepal (Baral et al., 2017) both revealed that the majority of mothers (80%) and (86%) respectively fed their newborns with colostrum.

Another significant finding in this study was the practices of mothers avoiding to breastfeed their babies for some number of hours with the belief that the child will grow to become patient and pious. According to the women, not feeding the babies until after three Azans (Islamic prayers) serves as a form of training which make them very patient and responsible children in the future. Acikgoz et al. (2014) in a study reported a similar finding. This practice is totally unacceptable and against the WHO recommendations of putting babies to the breast immediately after birth (WHO, 2017). Refusing to breastfeed the babies just to make them grow to become patient and pious is related more to the religious beliefs of these women. This could be attributed to the fact that the northern part of Ghana is dominated by the Islamic region and the majority of people have infused religious beliefs into their daily life activities. It is, therefore, necessary for the health worker to include the religious heads into health education programmes within the community if the fight to reduce neonatal mortality rates to at least as low as 12 deaths per 1,000 live births by 2030 is to be achieved.

The current study also discovered that some women introduced pre-lacteal feeds to their babies arguing that BM was watery and unsatisfactory to their babies. The women disclosed that babies were given additional feeds such as honey water, salt water, herbs, porridge shea butter mixed with water and cow milk. According to these women, the babies sleep for longer hours after taking these feeds which enable them (the mothers) to do their work and also have enough rest. Several studies supported the current finding, where a significant number of women introduced various pre-lacteal feeds to their babies at an early age (Srikanth et al., 2017). This

practice fills the babies' stomachs with water and foods that are difficult to digest instead of human BM which contain all the required nutrients for the growth and general wellbeing of the baby. Studies also show that about 85% of human BM is made of water. Interestingly, the current study is consistent with a study by Asare et al. (2018) who had asserted that women from northern Ghana were less likely to practice EBF as compared to women from the southern part of Ghana.

Bathing keeps the body refreshing and healthy. It washes away dirt and microorganisms from the body which prevent diseases. However, depending on the kind of material used, the mode of bathing and the temperature of the water used these practices can be unhealthy for the growth of newborns. Bathing babies with all kinds of substances including herbs is detrimental to their health. This was evident in the current study where a common practice among the majority of women, were bathing babies with both cold and hot water, herbs and massaging with shea butter. The women reported that herbs make the child grow strong bones, shea butter massage and cold water bath keeps the skin fresh, shining and the baby also become fat and intelligent. The finding agrees with John et al. (2015) and Bangari, Thapliyal, Ruchi, Aggarwal, and Sharma (2019) where the cold bath and oil massage were common practices among women. However, some of the women in this study were unhappy about how their mother-in-laws handled the babies during and after bathing. Their concerns were based on the fact that the babies were thrown up and down which could lead to the baby falling to the ground the women also complained of how the babies were folded as if they were smoke chicken. These practices are commonly observed especially in the northern communities where bathing of newborns is the sole responsibility of the elderly women. These old women during bathing bring their skills and experiences to bear without the slightest idea of how some of the practices are harmful to the

baby. Due to the inexperienced nature of most primiparous mothers on new-born care, no suggestions concerning bathing of babies from these first-time mothers are regarded as serious and what the old women say is final. For this reason, community health education needs to be intensified to capture every woman both young and old to help reduce the harmful traditional practices used in new-born care.

5.3 Attitude of Primiparous Mother towards Indigenous Newborn Care

The thoughts and feelings of a mother determine the kind of actions she will engage in. Hence, the attitudes of women towards INC practices predict their actions. Depending on how women view INC practices, they could either demonstrate a positive attitude, negative attitude or mixed feelings towards these practices. The current study revealed that women who perceived indigenous practices as beneficial to their babies exhibited positive attitude whilst those women who do not support the use of these practices to care for their newborns showed a negative attitude towards these practices. In addition, women who partially supported INC practices demonstrated mixed feelings toward the practices. No studies have been found to have categorized the attitude of primiparous mothers towards INC into positive, negative and mixed feelings. Probably, this suggests that the attitude of women towards INC practices are varied and no single type of classification is done in the available literature.

In the African society, giving birth to a child is the pride of every woman and caring for the baby to grow strong and healthy is seen as a responsibility on the family especially the mother. For this reason, many women engage in activities they perceive to be helpful to the growth and wellbeing of their children. The current study revealed that the majority of women exhibited a positive attitude towards INC practices. Vinu et al. (2014) also discovered similar findings were mother demonstrated average attitude towards cultural beliefs and practices on

postnatal care of newborns. They strongly supported the use of various INC practices such as bathing babies with herbs, using herbs to treat illness, oil massage, giving pre-lacteal feeds to babies and applying substances on the cord of newborns. This finding is in line with a qualitative study by Khanna and Gupta (2017) where women had good knowledge and positive attitude towards newborn oil massage. Oil massage in newborns is a beneficial practice since the act improves circulation and reduces stress. However, depending on the amount of pressure applied during the massage, it can also cause dislocations in the baby. A similar study in Pakistan (Asim et al., 2014) indicated that many women supported pre-lacteal feeding in newborns. contrary to this finding, Onah et al. (2014) reported that the majority of women had a positive attitude toward EBF. Therefore, Nurses and Midwives should adopt, modify and teach the mothers this beneficial indigenous practice during postnatal sessions.

Furthermore, the women argued that these indigenous practices are more effective, cheap, reliable and readily available to them than hospital care. This finding is consistent with studies in Nepal where a significant number of women prefer traditional newborn care to hospital treatment with the same reason that it is affordable and easily accessible to them (Baral et al., 2017; Subba, 2015). Another study that supports the current finding revealed that the majority of mothers considered INC effective and safe (Acikgoz et al., 2014). Affordability of health care is important to its uptake. Women preferences for INC as against hospital care in the study area could be attributed to the rejection of National Health Insurance Scheme (NHIS) cards by some health facilities in the study area due to delay disbursements of funds by previous and current Ghana governments. To curb this problem, women empowerment is therefore very vital to enable them to cater for the needs of their children.

Again, some of the women emphasized that indigenous practices are good and helpful to the growth of their babies and they were willing to continue these practices. Other women indicated that these practices make the newborn grow very strong and does not easily get sick. Acikgoz et al. (2014) study is consistent with the current finding. In addition, the women indicated that they will sometimes send sick newborns to the hospital but not abandon these indigenous practices and that not all conditions should be given medical treatment. Similar to the finding of the present study, is a practice in the southern part of Ghana where newborns suffering from a particular condition which is referred to as "*asram"* (hydrocephalous) is only recommended for herbal treatment and not for the hospital (Okyere et al., 2010).

The women who strongly supported these indigenous practices indicated that their mothers took care of them using the same practices and they have lived to this day and did not have a problem at all. The majority of the women believed in the potency of the indigenous practices so much that they revealed abandoning medical care after discharge from the hospital and going in for traditional treatment upon reaching home when their babies are sick. Some women even advocated for health workers to study more about indigenous practices and adopt them in their daily duties. Effective campaigns on ENC must be taken seriously by nurses and midwives if Ghana still aims at reducing neonatal mortality rates to at least as low as 12 deaths per 1,000 live births and meeting the targeted goal of achieving the Sustainable Developments Goal three (SDG3) by 2030.

An individual with a negative attitude towards a behaviour is most likely not to engage in such behaviour. Therefore, mothers who are against the use of indigenous practices in the care of their babies will exhibit a negative attitude towards this behaviour. The current finding showed that some primiparous mothers exhibited negative attitudes towards various forms of indigenous

practices within their environment. This current finding supports a study in India where the majority of a mother had a positive attitude towards optimal newborn care and non-showed unfavourable attitude (Jiji et al., 2014). The women expressed their displeasure towards throwing babies up and down after bathing, giving marks to newborns in a form of identity, early shaving of babies' hair and bathing them with herbs. Some of the women stated that throwing babies high and catching them again after bathing was undesirable. The mothers had fears of seeing their babies' falling to the ground when the one bathing fails to catch the child. Throwing babies up into the air to prevent them from collapsing later in life as claimed by the grandmothers, can cause trauma to the baby in the event that falls occur. This practice can only be found in the tradition of these mothers and has no scientific bases of preventing children from fainting.

The study again revealed that mothers were also against the practice of giving marks to newborns all in the name of family identity. The women argued that giving tribal mark or any form of marks was unnecessary since the procedure inflicts pain on the baby. A sense of belongingness is very vital in the African society and one is identified as a family member or as part of a particular group by certain marks given to the individual. Years past, women in some part of northern Ghana were only regarded as beautiful when they had certain marks on their bodies especially their faces. However, this kind of practice began to fade out as more and more people disliked the practice due to cosmetic and health reasons. The act of creating marks on one's body is a source of causing pain, scars, and infection. The report by the women in this study is a clear indication that these practices are still in existence. It is therefore very vital for nurses to visit individual homes and educate family heads on harmful indigenous practices especially on the hazard that can be caused by giving marks to babies.

Another interesting finding in the study was the early shaving of babies' hair with the reason that the hair was regarded as vagina hair and newborns can be harmed through this kind of hair. This finding is similar to an India culture were a barber shaves the babies hair as a ritual to show gratitude to their gods (Subba, 2015). Almost all the women were displeased with this practice and advocate for the act to be stopped since it deprived newborns of retaining heat within their bodies. The mothers gave their reasons based on the fact that the weather around that period was too windy and cold and shaving the baby's hair could cause heat loss. Providing warmth for a newborn is very significant to the survival of the child. According to WHO (2017), every newborn should be provided with appropriate clothing including a hat and this should be 1-2 layers more than adult for ambient temperature. The hair on the head of a newborn, therefore, serves as a protective covering against heat loss. Hence, much education is needed in every community to defuse the minds of the populace on the belief that the hair of a newborn is vagina hair and must be shaved off to prevent any harm. Protecting the baby against any form of harm can be done in other harmless ways and early shaving of hair is not the ultimate solution and should be discouraged.

The desire of every mother is to see her baby grow up to become someone very important, respectful and useful to society. The mother takes it upon herself to provide every need of her baby that will make the child grow to become what she wants him or her to be in the future. In this light, the current study found that some women were unhappy about using herbs to bath their babies. The mothers disclosed that herbs can be spiritually manipulated by unknown persons to make the child put up bad behaviours later in life. This claim by mothers cannot be scientifically proven but whatever the case may be, using herbs to bath babies must be totally discouraged to avoid any bad effects on the health of the newborn.

Mixed feeling occurs when an individual has both good and bad feelings towards a behaviour. Having a positive attitude towards indigenous practices and at the same time expressing dislike about some aspects of these practices leads to a kind of mixed feelings. This study revealed that some mothers indicated their displeasure towards some aspect of INC practices. The women stated that INC is not entirely useful or useless. This group of mothers disclosed that some of the practices are good while others are bad and must be avoided. Some of the women were in support of bathing babies with herbs but had a problem with the type of herb used. These women claim that bathing the baby with the wrong herbs can make the child to become a social deviant. However, when the right type of herb is used to bath these babies then, they grow very strong and healthy.

Some of the mothers were also against folding of babies after bathing and feeding newborns with pre-lacteal feeds and solid food. However, these mothers also supported the use of shea butter massage and giving water to the newborns with the claim that babies are also humans and need water to survive as similarly reported in a previous study (Yotebieng et al., 2013). This study finding suggests that the majority of the women have little knowledge of the benefits of EBF and the effects of some indigenous practices on the survival of neonates. More research is needed in the area of postnatal mothers' knowledge and understanding regarding the effects of traditional newborn care practices.

5.4 Cultural Beliefs of Primiparous Mothers on INC practices

Recognizing women's cultural beliefs in the care of newborn babies is very vital in curbing the harmful effects these beliefs have on the survival of all newborns. Cultural beliefs of primiparous mothers have been found to cut across all communities in the study area. The majority of women held various beliefs concerning indigenous newborn care. These beliefs were

broadly categorized into beliefs before birth and beliefs after birth. There was no literature found to have categorized the cultural beliefs of women into these forms. This could probably be due to the fact that culture is dynamic and unique to a particular group of people and which cannot be generalized to other communities.

The current study revealed that almost all the mothers had several beliefs before the birth of their babies. The common belief held by these women was the belief that it is a bad omen to prepare for the child before he or she is born. They indicated that the baby will die after birth if the mother buys things ahead of the day of delivery. The finding is similar to a study among Loa women in Southeast Asia where it was a taboo to prepare for birth. This finding is contrary to a study by Dhingra et al. (2014) who discovered that women had to prepare for birth by gathering items such plain cloth, gloves, thread, plastic sheet and razor before the day of delivery. However, foodstuffs believed to increase BM production after birth were allowed to be bought down since the woman will have to eat well right after delivery. Buying foodstuff that increases BM production is a good cultural practice that should be encouraged by all health workers during every health education sessions. However, appropriate measures should be put in place to discourage this worrying belief that advance preparation for birth is a bad omen. As part of the health education during the antenatal period, mothers are encouraged to buy and prepare all the necessary items needed for the delivery and care of the baby. If women fail to prepare for delivery ahead of time, then the women will be under pressure on the day of labour which is detrimental to their health. Labour in itself is hard work for these women and to add more stress on them can lead to complications which are harmful to the health of both mother and baby.

Another significant finding was the fact that the protection of both the mother and the unborn child was very common among all the women. They disclosed common beliefs

concerning protection such as no one outside the woman's family should know about the pregnancy else the foetus will be harmed and that a pregnant woman will have to move to the herbalist for some rituals to be performed to protect the foetus. If women are told to conceal their pregnancies then this will mean that the health-seeking behaviour of these women will be affected due to this cultural belief. Most pregnant women will avoid going for antenatal services which can have bad effects for both the growing foetus and the woman if this kind of cultural belief is not totally discouraged. Massive health educational programmes need to be rolled out to include both men and women in all communities in this study area to help in the fight against neonatal mortality which occurs due to such cultural beliefs. More research on cultural beliefs and practices need to be done to ascertain the extent to which these cultural beliefs have affected the lives of pregnant women and their unborn babies in the study area and other parts of Ghana.

An interesting finding was the belief that all pregnant women should avoid eating some kind of fish in order to prevent the baby from developing slippery skin after birth. Studies in other parts of Africa have also revealed similar findings where pregnant women are advised to avoid certain kinds of food, vegetables, and meat despite knowing the benefits of these foods (Altuntuğ et al., 2018; Diamond-Smith et al., 2016). According to Taylor, Emmett, Emond, and Golding (2018), pregnant women receive various information on what to eat or to avoid which include fish. Although eating of fish is known to be nutritious for pregnant women, this belief appears to be detrimental. In view of this, pregnant women need to be educated on the enormous benefits of fish to prevent them from adhering to these depriving cultural beliefs. The current study also revealed that fathers-in-law pour libation for the protection of the pregnant women and gave some concoctions to the women to drink with the belief that the herbs will provide strength for the foetus to come out on the day of delivery. This cultural practice is very harmful

to both the mother and growing foetus and should be discouraged. Some of these herbs increase uterine contraction which can lead to uterine rupture and death of the foetus. If this claim is even true, how much of the herbs are these women supposed to consume for the baby to get the required strength to come out on the day of delivery?

Every woman, after going through a stressful pregnancy coupled with labour pains will obey every instruction given to her by family members in order to protect her newborn baby from any harm without even taking into account the bad effects of these beliefs. The current study also discovered that almost all women held some form of beliefs after the birth of their babies. The most common belief that was observed among the majority of women was the belief that a baby who is fat and fair in complexion can be harmed by evil people when they exclaim about the appearance of that child. They indicated that the surest way to protect such a baby from evil eyes is to use herb known as "*Nangbantori*" (bitter mouth) to draw some kind of marks on the door of the room where the mother and baby stay. This is a harmless cultural practice that has no direct effect on the mother or baby. Several other studies have reported similar findings where harmless items such as onion, garlic, and amulets are hanged in the room of the lactating mother to repel evil eyes (Sasikala, Jyothi, Chandrasekhar, & Kumar, 2017; Zeyneloğlu & Kısa, 2018).

In addition, they also place needles and Holy Quran (Islamic book) under the pillow of the child, as similarly reported by several studies (Sein, 2013; Yilmaz, Kisa, Zeyneloglu, & Guner, 2013; Zeyneloğlu & Kısa, 2018) where these objects were placed under the pillow of the woman or baby. "*Nangbantori*" (bitter mouth) is a harmless cultural practice and the Holy Quran is an Islamic prayer book that equally has no harmful effect on the baby or mother. The use of the Quran to protect both mother and baby from evil is probably in existence due to the religious

beliefs of these women since the northern part of Ghana is predominantly Islam. However, placing needles under the pillow of the newborn is very dangerous since it can cause pricks to the skin of the child. This cultural belief needs to be discouraged because of its dangerous nature.

Furthermore, the women also revealed that herbs known as "vobeo" (bad leaf) were also used to bath newborns to protect them against evil eyes. The mothers were also prevented from taking any newborn who has not been given a name outside the home especially after the evening hours of 6 pm. This finding is consistent with studies in India (Reshma & Sujatha, 2014) where newborns were not allowed to be sent out after 6 pm. This cultural belief is beneficial to the newborn since it prevents the baby from insect bites such as mosquitoes and cold wind which can lead to illnesses such as Malaria, pneumonia and the common cold. Nurses and Midwives need to learn about some of these harmless practices and encourage them during routine health education.

Another cardinal finding was the hazardous practice of pouring mercury on the head of the baby and also putting herb on fire and placing it by the bed of the newborn with the belief that the mercury and smoke will repel evil eyes and protect the baby. This finding is consistent with studies in Turkey where lead was melted, poured in a cup or the head of a newborn and mother to protect them from evil eyes (Acikgoz et al., 2014; Zeyneloğlu & Kısa, 2018). Similarly, Latha (2017) also revealed that babies were moved back and forth over burning incense smoke after bathing to wear off evil spirits. Mother-in-laws were found to be those initiating these women into these beliefs due to the influence they have over the women. Zeyneloğlu and Kısa (2018), revealed that the most influential people who recommend these traditional practices are the mother and mother-in-laws. These cultural beliefs are very harmful to the wellbeing of both mother and baby. Placing smoke near the newborn can cause respiratory

problems such as pneumonia, asthma and other lung conditions. Protecting the newborn from harm can be done in other harmless ways such as placing brooms charcoal and chilly at the doorstep of the house to repel evil spirits as seen in a qualitative study in India (Latha, 2017). Nurses and Midwives need to organize health education in these communities and outline the dangers of these cultural practices to the survival of the newborns.

Beliefs about the nature of BM was also observed in this current study. The women revealed that a breastfeeding mother needs to have the smell of BM when she passes by and without this smell, it means the BM is not good for the baby and the woman will have to undergo certain purification rituals before the baby can suckle such breastmilk. The women added that herbal concoction is used for the purification process where both mother and baby are made to drink the herbs after washing the woman's breast as also reported by Subbiah and Jeganathan (2012) where mothers have to wait for rituals to be completed before initiating breastfeeding. In a normal circumstance, lactating mothers should appear neat and have a good smell. In the event that a breastfeeding mother passes with the smell of BM, it is a clear indication of poor personal hygiene by this woman. From all indications, this belief is not a good cultural practice since this encourages poor personal hygiene among these women which can cause infection to both mother and child. Nurses and Midwives need to organize periodic health education on maternal personal hygiene which should include all community members especially these mothers and mother-in-laws. Not breastfeeding babies until the completion of the rituals is also detrimental to the health of the baby. This means that the baby will have to be put on pre-lacteal feeds until after the ritual. Women should be discouraged from giving pre-lacteal feeds to their newborns since they lack the required nutrients.

Similarly, the majority of women placed a high premium on breastfeeding of babies in the current study. The women reported that their mother-in-laws encouraged them to consume foods that are believed to increase such as millet water, saltpetre porridge, and groundnut soup were good for adequate BM production. However, they were also advised to avoid foods such as okra and dark green leaves because it is believed to decrease BM production and also cause indigestion in newborns. This finding is supported by other studies in Turkey (Altuntuğ et al., 2018; Zeyneloğlu & Kısa, 2018) where women were made to consume different kinds of foods that increase BM production. On the contrary, Mao et al. (2016) and Sein (2013) and Bangari et al. (2019) revealed that women avoided certain foods and vegetables that were believed to cause illness to both mother and baby. Furthermore, the current study also reported that women were also advised to always drink warm water instead of cold water. Warm water is believed to increase the production of BM and prevent abdominal pains in lactating mothers. This practice is beneficial to the health of the mother since boiled water is safe. However, avoiding vegetables that appears slippery after cooking must be discouraged since this practice deprives both mother and baby of minerals, vitamins, and fibres that are gotten from eating these vegetables.

Another significant finding was the belief that babies must be welcomed with concoctions and until these babies consume the concoctions they are not considered as part of the family. This belief clearly indicates that mothers and mother-in-laws have not understood the importance of EBF to the newborn. Appropriate measures need to be put in place to increase the knowledge level of every woman on the health benefits of EBF to newborns. Further research should also be conducted in the area of indigenous breastfeeding practices to help unveil all the cultural beliefs surrounding breastfeeding.

Newborn care will be incomplete without the mention of significant others surrounding the primiparous woman. Mother-in-laws regard themselves as the sole caregivers since a first-time mother is inexperienced in the care of the newly born baby. Women after birth are also considered weak and are not allowed to do any hard work which includes care of the newborn except breastfeeding. For this reason, the care of newborns is greatly influenced by these elderly women with the cultural beliefs that are regarded as important to the growth and wellbeing of these babies. The current study disclosed that in-laws especially mother-in-laws have a great influence on the care of newborns to such an extent that women fear to disobey any instructions from these powerful grandmothers. The women indicated that due to the experienced nature of these grandmothers, childcare is their sole responsibility and even the child's father has no control over the care of babies. This finding is similar to studies in Malaysia (Jamaludin, 2014) and Asia (Lundberg & Trieu, 2011) where mother-in-laws help in the care of newborn babies and are regarded as the most influential people in newborn care in which their cultural beliefs are bestowed on the care of the postpartum mother and baby.

Another significant finding is that due to the great power these mother-in-laws possess, husbands could not influence the use of indigenous practices in the care of newborns since their mothers were against these practices. Community health nurses should identify some of these grandmothers who are against the harmful cultural practices and encourage them to continue this good fight whilst grandmothers who rather engage in these practices must be educated on the bad effects of these beliefs on the survival of the newborn.

5.5 Perceived behavioural control of primiparous mothers on INC practices

The kind of care a newborn will receive depends on the ability of a mother to handle situations which either hinder or promote the care of her baby. Women try as much as possible

to render safe and good care to their newborns despite any difficulties that they may encounter. Some women are able to stand on their grounds against indigenous practices that they perceive to be harmful to their babies whilst others are unable to resist the pressure from their mother-in-laws in using these practices. Those women who think these practices are beneficial to tend to demonstrate total control over the care of the newborn even without pressure from their family members. Hence, a high perception of control and low perception of control were what these women clearly demonstrated towards INC in this current study. This could probably be due to the level of education and age of the women. From the data, older women with no formal education were not easily influenced by their mother-in-laws whilst illiterate younger women were found to be easily influenced to engage in these indigenous practices.

The study revealed that almost all the women had a high perception of control over the care of their babies indicating that indigenous practices are very helpful to their babies and these practices are not difficult to use since they have heard about them before. The study also documents that women expressed inner joy and happiness towards these practices due to the perceived benefits they derived from these indigenous practices. The joy of the women was based on the reason that their babies gain weight and grow strong after bathing and feeding them herbs coupled with oil massage. The perception of these women needs to be changed through well-organized health educational campaigns illustrating the harmful effects of these indigenous practices on the survival of all newborns. Despite the overwhelming support for INC in the current study, some of the women also stood against the use of herbs in bathing their babies due to the perceived harmful effects of these practices. Feeding babies with herbs disrupt adequate and appropriate breastfeeding, exposing them to various diseases such as cholera, diarrhoea, and

malnutrition. All women should be empowered through health education to help them identify and campaign against the use of harmful indigenous practices for the care of their babies.

After the birth of a newborn baby, grandmothers and other elderly women assume responsibility for the care of the baby. These grandmothers in the African society have enormous power over the care of their son's children to such an extent that any woman who stands against their orders can lose their marriages or be ready to live with a rival. For this reason, women in this situation are compelled to surrender to their mother-in-laws in order to maintain peace in their marriages. Some women also obey these mother-in-laws just for the welfare of their children.

A significant finding this current study discovered was the fact that some of the women expressed low perception of control over the care of their newborns. Due to the fear of their mother-in-laws, some of the women were compelled to accept the use of indigenous practices to care for the babies despite knowing the harmful effects of these practices. The finding clearly shows that these women just had to obey the orders of their mother-in-laws to avoid the consequences of losing their marriages and for the sake of the welfare of their babies. The women who could not stand the pressure from their mother-in-laws and had to give in to their orders could be due to the fact that in the Ghanaian culture young women married into a family are expected to obey and respect their in-laws, especially their mother-in-laws. Women who flaw the rules of these mother-in-laws are regarded as disrespectful.

Furthermore, women also had a low perception of control over indigenous practices due to lack of money, loss of strength after delivery and their inexperienced nature in newborn care. In this case, family members especially the grandmothers take over the care of these newborns and whatever they do or say is final. These women then become powerless and have little or no

input in the care of her baby. Nurses and midwives should educate every member of the family especially mother-in-laws on good practices on newborn care to help prevent the use of the indigenous practice in the care of newborns.

5.6 Intention of primiparous mothers towards INC practices.

After a safe delivery, every mother has good plans for the survival of her newborn. These plans or intentions could either be beneficial or harmful to the health of the baby depending on the nature of these intentions. The current finding revealed that the women had various intentions before the birth of their babies. They had intentions to continue the family tradition, obey expert advice, produce adequate BM and intentions that were influenced by significant others. No study has been found to discuss women's intentions about indigenous newborn care.

Family tradition in this current study was regarded as very significant to the care of newborns. The majority of women expressed their intentions to continue with the way newborns were cared for in their families. According to these women, INC helped their babies to grow well and they were ready to use the same practices to care for their next children and even teach their friends since these practices were handed down from generation to generation. A family tradition such as newborn drinking water from family shrine after the visit of a python to welcome the baby into the family was practiced. This finding is similar to a traditional practice in China where babies within 30 to 100 days are taken to the family shrine for certain rituals (Blumberg, 2016). The practice is harmful to the health of the newborn and clearly shows that the women did not adhere to the rules of EBF due to these indigenous practices. This cultural practice could probably be attributed to the fact that visitors are welcomed with water in Ghana and this is even more pronounced in northern Ghana where this research was conducted. This practice demonstrates the hospitable nature of Ghanaians. Despite this widespread and acceptable norm,

welcoming babies with water should be discouraged since it exposes these newborns to water-borne diseases such as diarrhoea, typhoid fever, and cholera. Nurses and midwives need to organize health education involving all family heads on the danger of these family traditions.

Another crucial finding worth nothing was the intention of mothers to obey expert advice. The majority of women had planned to follow what the nurses and midwives had taught them when they were pregnant but was unable to execute these good plans due to the influence of their mother-in-laws. The women disclosed that they were aware of some of the indigenous practices in their community but did not want to use them to care of their babies. According to these women, the nurses during antenatal services educated them on the harmful effects of indigenous practices such as giving water to babies, bathing them with herbs and applying substances on the cord and they were ready to obey the nurses. However, their mother-in-laws started using these indigenous practices to care for their babies and upon seeing that the care was helpful they changed their minds.

Again, due to fear of being tagged as disrespectful or abused by mother-in-laws some of the women who intended to resist these practices gave the orders of their mother-in-laws. These mother-in-laws or grandmothers are regarded as very powerful in most African societies and have a great influence on their son's wives. The care of newborns, most of the time, is solely the responsibility of these grandmothers due to their past experiences in childcare. Their cultural beliefs and ideologies have significant effects on the survival of these newborns. Hence, nurses and midwives during follow up visits should educate all mother-in-laws on the effects of these indigenous practices using images of babies who have been affected due to these harmful practices.

Producing adequate BM after birth for the newborn is the desire of every pregnant woman. Normally, women try as much as possible to prepare ahead of time before they are put to bed and this was exactly what the majority of women did in this current study. They revealed that it is a norm in their community for all pregnant woman to buy foodstuff that will help them produce enough BM for the newborn after birth. Some of the women were so happy to disclose that the lactating period is the time their husbands' show them so much love and attention and it is the time they are well fed and the men are willing to provide all their needs. Furthermore, the women added that the old women at this time also advise them on the kind of food they should eat. Some of the women are told to consume food that increases BM production especially food containing a lot of pepper since they believe that the pepper will make them produce adequate breastmilk. This finding is consistent with a study in Ghana (Aborigo et al., 2012) and Turkey (Altuntuğ et al., 2018). Contrary to this finding is a study by Begum et al. (2017) who reported that lactating mothers were rather advised to avoid spicy and cold food because this food prevents adequate BM production. These cultural practices are good for the wellbeing of both mother and baby which should be encouraged since, after stressful labour, women need maximum attention and care from the families especially their spouses. Also, eating well during this period helps the woman to produce adequate BM for the newborn baby and also replaces her lost strength.

5.7 Behaviour of primiparous mothers towards INC practices

The neonatal period is the most critical time newborns are at risk of dying and their survival greatly depend on the care he or she receives right after birth. For this reason, every mother tries to provide the best of care to their babies during this period. Most women at this time are easily influenced to engage in practices that may be helpful or detrimental to the life of the baby. This was evidently articulated in this current study where the majority of women

engaged in INC practices which were either beneficial or harmful to the survival of these newborns.

Indigenous practices may not be entirely harmful to the growth and wellbeing of the newborn. Some practices are beneficial, harmless and also protects the newborn from hypothermia and other practices help the women to produce adequate BM for their newborn to suckle. The current study revealed that almost all the women engaged in beneficial practices such as bathing babies with warm water, wearing and wrapping them with long clothing and placing charcoal fire in their rooms to keep both mother and baby warm in order to protect the newborn from hypothermia. Consistent finding to this current study was found in a qualitative study conducted in four African countries (Adejuyigbe et al., 2015). Degefie et al. (2014) also revealed a similar finding where babies were kept warm through a warm water bath, wrapping and wearing long clothes and burning fire all day to keep the room warm. In contrast to a study in India (Latha, 2017) and Ethiopia (Degefie et al., 2014) thermal care for newborns were poorly practiced. Another cardinal finding is that the majority of women bought and prepared foodstuffs believed to increase BM production ahead of time before the day of delivery. Preparing for birth as pregnant women are encouraged by nurses and midwives to do, reduces unnecessary stress and pressure from the women during labour. Bathing babies with warm water, wrapping them and keeping their rooms warm are also good practices that nurses and midwives should continue to teach women during antenatal and postnatal services.

Similarly, the protection of newborns against harm was a great concern for almost all women. The majority of women protected their newborn from bad spirits using harmless items such as amulets, herbs called *Nangbantoori* “bitter mouth”, Holy water and Holy Quran (Islamic book). A similar finding in India (Latha, 2017) also indicate that harmless items were placed in

the doorstep of the lactating mother's room to repel bad spirits. These practices are equally not harmful to the newborn since they have no direct effects on the lives of these newborns.

The desire of a mother to see her child grow strong, healthy and intelligent made some women engage in certain INC practices that are detrimental to the health of their babies. The current study discovered that the majority of women practiced baby massage and bathing of herbs. The reasons associated with these practices were that they wanted their babies to grow strong bones, fat, active, intelligent, fresh and shining skin and prevent the babies from falling ill. During the bathing of the baby, hot water herbs are used for the bathing and afterward massaged with shea butter. This finding is consistent with other studies where babies were massaged with oil after a herbal bath (Peterside et al., 2015). Herbs bath was also believed to make babies crawl and walk faster than babies bathed with normal water. These babies are also folded with the reason that they will become flexible and strong.

Furthermore, the majority of women also bathed the babies with cold water and some newborns were even bathed in a river with the belief that babies will not catch a cold later in life when beaten by the rain. This finding agrees with Degefie et al. (2014) and Sacks et al. (2015) who discovered that babies were bathed with cold water at night with the belief that cold water promotes growth. Bathing newborns with herbs has not been scientifically proven in making newborns grow strong bones, fat, active, intelligent, fresh and shinning skin or prevent them from falling ill. This can only be found in the culture of these women which is harmful to the survival of newborns and must be totally discouraged.

It is undoubtedly a fact that bathing with warm water keeps the babies' skin clean, refreshing and prevent them from hypothermia. However, cold water bath be it in a river or at home can cause the baby to lose heat resulting in conditions such as common cold and

pneumonia and oil massage can also lead to dislocation and organ prolapse such as anal and vaginal prolapse in newborns (Peterside et al., 2015). Hence, nurses and midwives should, therefore, educate all women including grandmothers on the harmful effects of these indigenous practices on the wellbeing of the newborn.

Another cardinal finding was that all kinds of substances were used to apply on the cord of the newborn before and after the detachment of the umbilical cord. Various substances such as motor oil, cooking oil, shea-butter, powered roots, toothpaste, fowl faeces, chalk, cow dung, salt, and charcoal were used on the cord. Shea-butter and cooking oil were the most common applied substances. The current finding is supported by several studies both in Ghana (Moyer et al., 2012; Nutor et al., 2016; Saaka & Iddrisu, 2014) and abroad (Al-Sagarat & Al-Kharabsheh, 2016; Amare, 2014; Çapik & Çapik, 2014; Islam et al., 2015; Khan, Memon, & Bhutta, 2013; Latha, 2017; Osman et al., 2017; Pati et al., 2014; Sharkey et al., 2017). In contrast, a study in Tanzania disclosed that clean dry cord care was practiced by the majority of women before the cord detaches (Dhingra et al., 2014). The reasons given for the application of these substances were that these indigenous substances make the umbilical cord to dry and detach faster than a hospital cream (4% chlorhexidine cream) given to them after discharge to apply on the cord. Several studies (Amare, 2014; Coffey & Brown, 2017; Gul, 2014) revealed similar findings. These substances are unsterile which can cause sepsis in newborns resulting in neonatal mortality. Application of salt is reported in another study to be safe. However, depending on the kind of salt that is used this practice can still introduce infectious pathogens onto the umbilical cord of the newborn leading to infections. Research should be done in the study area to ascertain the effectiveness of the 4% chlorhexidine cream given to these women for the umbilical cord of newborns after discharge from the health facility.

The current study also revealed that almost all the women exhibited various kinds of behaviour when their babies took ill. Some of the mothers gave home remedies and other women also contacted herbalist for the treatment of these babies. The treatment that was given included herbs for bathing and drinking for the treatment of cough, black oil mixed with tobacco for application of pulsating fontanels, paracetamol and gripe water for fever (high body temperature) and abdominal colic. This finding also agrees with Reshma and Sujatha (2014) where most mothers gave home remedies when their babies are sick. Contrary to this finding is a study by Çapik and Çapik (2014) where all the women contacted medical doctors when their babies fall sick and none used traditional treatment. Providing home treatment can be very detrimental to the survival of the newborn since the type, quantity and mode of administration of these drugs are neither prescribed nor documented by a license medical practitioner. All women should be encouraged during antenatal and postnatal visits to send sick newborns to a health facility for treatment when ill in order to prevent any neonatal mortality.

Feeding is very vital for the survival of every newborn and breastfeeding is the recommended food for these babies since it is nutritious, safe and cheap. The current study revealed that all the women practiced breastfeeding. However, some of the women added additional feeds such as honey, plain water, salt water, and concoctions. Several studies have revealed similar findings (Aborigo et al., 2012; Islam et al., 2015; Latha, 2017; Pati et al., 2014; Salasibew et al., 2014; Shah & Dwivedi, 2013; Srikanth et al., 2017). Varied reasons including dry weather, unsatisfactory nature of BM and babies looking at food when mothers are eating were reported. Breastfeeding all babies as observed in the current study is a good practice and must be encouraged. However, pre-lacteal feeding of newborns as practiced in this current study is harmful to all newborns. It fills up the stomachs of these babies, introduces infections and

prevents these babies from breastfeeding well which exposes the newborn to conditions such as diarrhoea and malnutrition. Nurses and midwives should educate women on the importance of EBF and the harmful effects of these pre-lacteal feeds.

5.8 Knowledge deficit about essential newborn care (ENC).

Women understanding the importance of optimal newborn care guarantee's the correct implementations of the care. The majority of women in this current study demonstrated that they were given various health education on ENC by nurses and midwives before and after the delivery of their babies. However, these women lacked an understanding of the benefits of this education on newborn survival because the women had knowledge of essential newborn care but the majority did not translate the knowledge into practice. In contrast, studies in Ethiopia (Castalino et al., 2014; Misgna et al., 2016) indicate that the majority of women had good knowledge and practice on newborn care. Another study in Ethiopia also revealed a contrary but interesting finding where few women (36.1%) had knowledge of ENC and rather a greater number (81.1%) engaged in optimal newborn care. The lack of understanding of optimal newborn care in the current study could be attributed to ineffective health education by nurses and midwives before and after delivery of the babies. The women received health education to avoid the application of indigenous substances on the umbilical cord of the newborn but rather apply 4% chlorhexidine given to them after discharge. These instructions were followed by some of the women for a short while but indigenous substances were still applied before and after the cord dropped with the reason that the detachment of the baby's cord was delaying.

Furthermore, some of the women also reported that they were instructed by the nurses not to give water to their newborns except BM which they obeyed but had to administer gripe water when the babies get stomach ache or fever since natural water is not good for any newborn.

This finding is consistent with a study by Atindanbila, Mwini-Nyaledzigbor, Abasimi, Benneh, and Avane (2014) where women who claim to be practicing EBF also added water for their babies.

A similar study in the Southern part of Ghana agrees with this current finding where women had high knowledge on EBF (EBF) but few women translated their knowledge into practice (Asare et al., 2018). According to Onah et al. (2014) women having knowledge on EBF does not actually mean they will practice EBF probably due to the fact that the women might not have appreciated the benefits of this practice. This clearly demonstrates that these women were giving health education on some ENC. However, their lack of understanding of the benefits of these optimal newborn care coupled with their cultural beliefs and practices prevented the women from implementing these vital health educations to the latter. Nurses and midwives need to intensify health education during antenatal and postnatal visits on the importance of optimal newborn care. This will help correct misconceptions and lack of understanding of the benefits of any optimal newborn care provided by the health team.

In summary, the current study found that the majority of women engaged in several INC practices because they regarded these practices to be effective than hospital care. The women also exhibited a positive attitude, negative attitude and mixed feeling towards INCand their cultural beliefs came to play before and after the birth of these newborns. Again, the study revealed that some of the women had a high perception of control on INC practices and others had a low perception of control. Furthermore, the women showed various intentions towards INCwhich include; intention to continue the family tradition, obey expert advice, and produce adequate breastmilk. In addition, the majority of women also used both harmful and beneficial traditional practices in the care of their babies and some of these harmful practices were as a

result of knowledge deficit related to ineffective education on essential newborn care by nurses and midwives.

CHAPTER SIX

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

This chapter presents a summary of the study, the implications of the findings to nursing and midwifery practice and research. Limitations of the study are presented with the conclusion drawn. Lastly, recommendations based on the findings of the study are outlined.

6.1 Summary of the study

Giving birth to a live and healthy baby is a source of joy to every family especially the mother and the survival of the baby depends on the kind of care he or she receives. Therefore, every woman tries as much as possible to provide quality care to her newborn. For this reason, many women in their desire to provide good care are either influenced or voluntarily engages in INC practices that are harmful to the survival of their newborns. The women of the EMD support the use of INC practices in caring for their babies. The study, therefore, explored the INC practices among primiparous mothers in the EMD using the TPB as the organizing framework. Formulation of the study objectives was based on the constructs of this theory. The study was conducted using an exploratory descriptive qualitative design with a purposive sampling technique to engage twelve (12) primiparous mothers who met the inclusion criteria and stayed not less than six months in the EMD. Collection of data commenced after obtaining ethical approval from the Institutional Review Board of the Noguchi Memorial Institute for Medical Research, University of Ghana. Piloting of the interview guide was carried out at the Walewale regional hospital in the West Mamprusi District to pre-test the interview guide and refine the questions to fit into the context of the study. Primiparous mothers who consented to participate in the study by signing or thumb printing the consent form where interviewed. The audio

recording was done to all interviews with permission from the participants and transcribed verbatim. Data collection and analysis were done concurrently using thematic content analysis.

The study revealed that the majority of women engaged in several INC practices such as using various substances to care for the umbilical cord, bathing the newborn with herbs, discarding colostrum and feeding these babies with various pre-lacteal feeds. These mothers asserted that the indigenous newborn practices were effective, cheap and available to them than hospital care. The women believed that indigenous substances were more effective for cord detachment, colostrum was harmful, BM was not sanctifying and bathing babies with herbs makes them strong and prevent them from falling sick. Hence, the first theme to emerge from the data which was not inconsistent with the model was identified INC practices

The study again discovered that the women exhibited various attitudes towards INC practices depending on the opinion of these women. The women who supported the use of these practices showed a positive attitude whilst those who viewed indigenous practices as a harmful portrayed negative attitude towards these practices. Those women who did not agree with some aspects of these practices expressed their displeasure and recommended that harmful practices should be avoided. These women cited bathing babies with herbs as an example, which they claim that babies should be bathed with the right herbs whiles bad herbs must be avoided. Some of the women had complete control over the INC and others were influenced by their mother-in-laws to care for their babies using these practices. Their intentions towards INC practices were expressed in varied forms which include; intentions to continue the family tradition, intention to obey expert advice, intention to produce adequate BM and intentions influenced by significant others.

The study also found that many of the women had inadequate knowledge about optimal newborn care practices. This could be the possible reason why the majority of women employed INC practices to care for their babies. This theme was also inconsistent with the TPB.

6.2 Implications of the findings

The findings of the study have implications for nursing and midwifery practice and future research

6.2.1 Nursing and Midwifery practice

The study has established that women had inadequate knowledge of optimal newborn care. Nurses and midwives need to educate all women during antenatal and postnatal services on the benefits of essential newborn care practices as well as the dangers associated with harmful INC practices. These women will have to be educated using practical illustrations and allow them to do return demonstration which will help them acquire the needed skills and understanding. Significant others especially mother-in-laws were found to have great power and control over the care of newborns. Nurses and midwives will, therefore, have to organize periodic durbars to educate all community members on the harmful effects of these indigenous practices.

6.2.2 Future research

The findings of the study revealed that indigenous practices affect the uptake of optimal newborn care practices among primiparous women in the EMD, Ghana. However, several cultures with varied beliefs and practices can be found in Ghana. Therefore, further research needs to be conducted to unveil the numerous harmful traditional practices found in this area. Again, the findings imply that more research on cultural beliefs and practices need to be done to ascertain the extent to which these cultural beliefs and practices have affected the lives of pregnant women and their unborn babies in the study area and other parts of Ghana. Further

research should also be conducted to uncover the degree of influence that significant others have on primiparous women.

6.2.3 Nursing Education

The finding also indicated that some of the mothers were unhappy about the attitude of nurses towards them when they report at the hospital with their sick babies and the nurses discover that they have engage in some indigenous newborn care practices. The Nursing and Midwifery Council (NMC) should include transcultural nursing as part of the curriculum in all Nursing and Midwifery Colleges across the country. This will help to equip Nursing and Midwifery students with the various cultures across the country which will in turn reduce negative attitudes from nurses towards the patients.

6.2.4 Nursing Administration

The finding revealed knowledge deficit on essential newborn care. Nursing leaders should frequently organise in-service training on newborn care practices for all nurses and midwives which will help the nurses to provide adequate education to the mothers during and after birth. This will reduce misconceptions among mothers and will improve uptake of essential newborn care.

6.3 Limitations of the study

Regardless of the vital findings, this current study has unveiled about INC practices, the study could not be without some limitations. Generalization of findings should be done with circumspect due to the few numbers (12) of women who were recruited to participate in this study. Since the demographic and the setting of the study have been appropriately described, transfer of findings to similar context can be done but with caution due to variations in the study

population. Again, the limitation of the study can be observed in the fact that data was translated from the local language to English and the exact meaning of some statements could have been missed. However, efforts were made to use a more vivid meaning to explain these statements. Furthermore, only primiparous women were used in this study. For this reason, generalization should be done with circumspection.

6.4 Conclusion

The current study explored the INC practices among primiparous mothers in the EMD using the TPB as the organizing framework. The findings showed that INC practices are common among primiparous mothers in the EMD. Although many of the indigenous practices were found to be harmful to the survival of newborns, avoiding these practices were difficult for the primiparous women due to their cultural beliefs and influence of significant others surrounding them. Hence, primiparous mothers and their significant others should be educated on the detrimental effects of harmful indigenous practices and the benefits of essential newborn care practices. The attitudes of mothers in this study coupled with their cultural beliefs and perceived behavioural control influenced their intentions towards INC practices which together influenced these mothers to engage in these indigenous practices. In view of this, the finding is consistent with the constructs of the Theory of Planned Behaviour.

6.5 Recommendations

Based on the findings of the study, the following recommendations are made to the District Health Management Team (DHMT), Ghana Health Service (GHS)/ Christian Health Association of Ghana (CHAG), Ministry of Health (MOH) and The Ministry of Gender, Children and Social Protection (MGCSP).

6.5.1 District Health Management Team (DHMT), Gambaga/ Nalerigu

The DHMT which is under the Ghana Health Service should;

1. Train community health nurses and midwives on the cultural beliefs and practices pertaining to the district. This will help them educate all women in the community to practice clean dry cord care and avoid the application of fowl droppings, chalk and shea butter on the umbilical cord of newborns.
2. Frequently organize workshops for nurses, community health nurses, and midwives on cultural issues in the district which will help them provide culturally sensitive care to women attending antenatal and post-natal services.
3. Provide continuous in-service training on optimal newborn care for all nurses and midwives in the catchment area to update their knowledge to enable them to provide appropriate health education for all women on the significance of practicing essential newborn care.
4. Ensure community health nurses and midwives constantly conduct routine home visits to assess conditions of newborns after discharge. These visits should be scheduled in such a way that mothers, mother-in-laws, husbands, family heads, and grandmothers are part of the education that is given to the mothers during these visits. The health education should focus on the need to avoid feeding babies with concoctions, applying indigenous substances such as fowl dropping, chalk, and shea butter on the cord of newborns.
5. Provide manuals on essential newborn care to be used by all nurses and midwives in the district to educate nursing mothers during postnatal services.

6. Organize community durbars in the various sub-districts to sensitize community members on the need to embrace optimal newborn care practices.

6.5.2 Ghana Health Service (GHS)/ Christian Health Association of Ghana (CHAG)

The GHS/CHAG should;

1. Train community and public health nurses and midwives on the various INC practices that exist. This will help them provide culturally sensitive care to all women
2. Initiate community education and dialogue on how to reduce neonatal mortality in the communities. This will in turn help to reduce neonatal mortality rates in Ghana.
3. Create innovate family and community-centred caregiving programmes needed to support mothers to provide optimal newborn care.
4. Organize continuous professional in-services training occasionally for all nurses and midwives on culturally competent nursing care to help them acquire skills to fashion out appropriate health education programmes that target the deep-rooted INC practices which are detrimental to the health of the newborn.

6.5.3 Ministry of Health (MOH)

The Ministry of Health should;

1. Collaborate with the Ministry of Chieftaincy, Arts, and Culture to have all the custodians of the land (Queen mothers and Chiefs) sensitized on the detrimental effects of some INC practices and they will, in turn, educate their community members on these practices. This will help to change some of the harmful cultural beliefs and practices existing in the area.

2. Engage with the Ministry of Gender, Children and Social Protection to organize and sensitized women including grandmothers on the benefits of essential newborn care.
3. Provide funding for more research work in the areas of newborn health in order to help curtail the high number of neonatal mortality in the country.
4. Formulate policies that would ensure nurses and midwives continually upgrade their knowledge in the field of neonatal nursing. This will help to improve their knowledge and skills for the provision of optimal newborn care.

6.5.4 Ministry of Gender, Children and Social Protection

The MGCSP should;

1. Engage community leaders and members on ways to assist women with newborns to provide essential newborn care through community durbars and sensitization.
2. Empower women economically through skills training to enable them adequately provide the needs of their babies and report to the hospital when their newborns fall sick. This will help reduce their engagement in indigenous practices believed to be cheap, effective and easily accessible.
3. Collaborate with GHS/CHAG to embark on periodic community education on the effects of INC practices.

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Appendix A: Ethical Clearance

NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH
Established 1979A Constituent of the College of Health Sciences
University of Ghana

INSTITUTIONAL REVIEW BOARD

Phone: +233-302-916438 (Direct)
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Telex No: 2556 UGL GH

Post Office Box LG 581
Legon, Accra
Ghana

My Ref. No: DF.22
Your Ref. No:

7th November, 2018

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824 **IRB 00001276**

NMIMR-IRB CPN 008/18-19 **IORG 0000908**

On 7th November 2018, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

TITLE OF PROTOCOL : **Indigenous newborn care practices among primiparous mothers in the East Mamprusi District**

PRINCIPAL INVESTIGATOR : **Francisca Alebila, MPhil Cand.**

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 6th November, 2019. You are to submit annual reports for continuing review.

Signature of Chair: .....

Mrs. Chris Dadzie
(NMIMR – IRB, Chair)

Appendix B: Introductory Letter

UNIVERSITY OF GHANA
DEPARTMENT OF MATERNAL AND CHILD HEALTH
SCHOOL OF NURSING

Ref. No.: SON/A.12 October 9, 2018

The Chairman
NMIMR - IRB
P.O. Box LG 581
Univ. of Ghana
Legon.

Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you Francisca Alebila, an MPhil second year student of the School of Nursing and Midwifery.

The Scientific Review Committee of the School has approved the thesis topic: **"Indigenous Newborn Care Practices among Primiparous Mothers in the East Mamprusi District".**

I hope that the Institutional Review Board will approve the proposal to enable her collect data.

Counting on your usual co-operation.

Thank you.

Yours faithfully,

Dr. Florence Naab
Head, Dept. of Maternal and Child Health

COLLEGE OF HEALTH SCIENCES
• P. O. Box LG 43, Legon, Accra, Ghana. • Telephone: +233 (0) 302 513 250 / 0289 531 213
• Email: mch.son@chs.ug.edu.gh • Website: www.nursing.ug.edu.gh

Appendix C: Interview Guide

Data collection tool (interview guide)

Introduction

My Name is Francisca Alebila, an MPhil Nursing student from the University of Ghana. I am conducting a study on the indigenous newborn care practices among primiparous mothers. As part of collecting data for the study, I am going to ask you questions concerning your attitude, intention, cultural beliefs, perceived behavioural control and behaviour towards newborn care. Please take your time to respond to the questions and feel free to ask me for further explanations if some of the questions are not clear to you. You may skip any of the questions if you do not want to respond to them. You can also return later to respond to them if you so wish. There are no wrong answers to the questions being asked, so answer them with all the honesty it deserves. Your responses to the questions will not be identified with you but may be of great importance to this study by contributing to data generation. Thank you.

PART I

BACKGROUND INFORMATION FORM

A. Demographic data

Code number.....

1. Age.....
2. Sex.....
3. Marital status: Married (), Divorce (), Widow (), Single ()
4. Level of educational: Primary (), Junior high school (), Senior high school (), Tertiary (), none (), others ().

PART II

Guiding Questions

B. Attitude of primiparous mothers towards indigenous newborn care

1. **Apart from the care your baby received at the hospital after you delivered, what other things do you do at home to care for your baby?**

   Probe: traditional practices

2. **What is your view on these traditional practices mentioned above?**

   Probe for specific practices mentioned e.g herbs to bath your baby, applying substances on the cord of your baby, massaging baby with oil, bathing baby with cold water

3. **What do you think about how our forefathers use to care for the newborn after delivery?**

4. **What are some of the things our fore fathers use in caring for the newborn and what is your opinion about them?**

5. **What do you think is the best way to care for your baby?**

C. Cultural beliefs (subjective norm)

6. **What are the views of significant others on the use of traditional practices in the care of your baby?**

   Probe: e.g of significant others include respondent's husband, mother-in-law, friends, neighbours.

7. **What influences does the family have With regards to the care of your baby?**

   Probe for cultural beliefs that influences newborn care e.g preventing evil eye, spirits

8. **What are your beliefs regarding the use of traditional practices in the care of your baby? Probe giving herbs to the baby, bathing baby with herbs and concoctions, applying substances on the cord of baby**

9. **What beliefs inform your traditional practices regarding care of your baby?**

Probe giving herbs to the baby, bathing baby with herbs and concoctions, applying substances on the cord of baby

10. **What are your beliefs regarding feeding of your newborn?**
11. **What are your beliefs regarding umbilical cord care?**

Perceived behavioural control

12. **Are there any difficulties in using traditional practices to care for your baby?**

    Probe for difficulties if any e.g past experiences,
13. **What motivates you in using traditional practices to care for your baby?**

    Intention
14. **What are your intentions (plans) with regards to the traditional ways of caring for your baby?**

    Probe for intention to continue or stop the traditional newborn care
15. **How did you plan to care for the baby when you were pregnant?**
16. **What preparations did you make towards the birth of your baby?**
17. **Who were the people you seek for advice when you were preparing to give birth?**

    Probe: Mother, husband, mother-in-law, friends, neighbour

    Behaviour
18. **How did you care for your baby after delivery?**

    Probe: traditional practices e.g applying substances on cord, massaging baby, bathing with herbs and concoctions, breastfeeding.
19. **What are some of the traditional practices you used in caring for your baby at home?**
20. **What are the traditional practices regarding the care of the cord of your baby?**
21. **How do you provide warmth for your baby at home?**

22. What do you do to prevent your baby from getting sick?

23. What do you use in treating your baby when he/she is sick at home?

24. What traditional method of treatment of newborn illness do you use when your baby is sick?

25. What methods of preventing newborn illness do you practice in this community?

26. Is there anything to want ask or add to our conversation?

Appendix D: Consent Form

NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH (NMIMR)
COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

INSTITUTIONAL REVIEW BOARD

Consent Form

Data Collection Instruments

SECTION C – SIGNATURES

I. As the **Student Investigator** on this project, my signature confirms that:

1. I will ensure that all procedures performed under the study will be conducted in accordance with all relevant policies and regulations that govern research involving human participants.
2. I understand that if there is any change from the project as originally approved I must submit an amendment to the NMIMR- IRB for review and approval prior to its implementation. Where I fail to do so, the amended aspect of the study is invalid.
3. I understand that I will report all serious adverse events associated with the study within seven days verbally and fourteen days in writing.
4. I understand that I will submit progress reports each year for review and renewal. Where I fail to do so, the NMIMR-IRB is mandated to terminate the study upon expiry.
5. I agree that I will submit a final report to the NMIMR-IRB at the end of the study.

Name & Signature of Student: _____ Date:_____

II. As the **Student Supervisor** on this project, my signature confirms that I have read the students work which has been reviewed and approved by the departmental review committee/ scientific and technical committee:

Name & Signature of Supervisor: _____ Date:_____

NMIMR INSTITUTIONAL REVIEW BOARD
VALID UNTIL
07 NOV 2019
APPROVED DOCUMENT

NMIMR-IRB Form A (Students Only)
Version Date: February, 2018

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Consent Form

Title: Indigenous newborn care practices among primiparous mothers in the East Mamprusi District

Principal Investigator: Francisca Alebila

Address: School of Nursing and Midwifery,

University of Ghana, Legon,

Post office box 43, Legon

Telephone: 0246471270/0205652426

E-mail: falebila@st.ug.gh/frankystar7@yahoo.com

GENERAL INFORMATION ABOUT RESEARCH

You have been invited to participate in this study because you are a first time mother, a native of Mamprugu and your baby is the age that is appropriate for this study.

This study is to explore the indigenous newborn care practices among first time mothers in the East Mamprusi District. You will be required to answer interview questions in English or Mampruli which will take you 30 to 45 minutes. There is no right or wrong answer and you can answer in your own wards. This will be audio recorded with your permission and field notes will be taken on event that it cannot be recorded. Your name will not be recorded in order to prevent others from knowing who you are. The recorded information will be transcribed in exactly the same wards as you will used. A false name will be given to the conversation the researcher will have with you. Those who will know about the conversation will be only the researcher's supervisor. The information will be kept with the researcher in a safe place for five years without it been shared with a third person before destroying it by burning. The finding will only be used to educate other women on beneficial and harmful indigenous newborn care practices that exist in the study area.

Possible Risks and Discomforts

The researcher anticipates that, you will not encounter any harm in this study.

Possible Benefits

There are no direct benefits to you. However the information you will provide will be used to educate other women on the care of newborns.

Confidentiality

In order to protect your personal identity and privacy, a false name will be assign to you so that other people will not know you are. Nobody around the interview area will hear what will be discussed between you and the researcher. The consent form will be seen only by the researcher and supervisor and will be kept safely in a place no one can find it. The information that you provide will equally be stored on a computer with a password security feature making its accessibility difficult. Your information will also not be shared by the researcher to any third party.

Compensation

You will be given 20gh as a form of reward for your transportation and refreshment for accepting to participate in this research.

Voluntary Participation and Right to Leave the Research

Please know that your participation in this study is purely voluntary and if at any point you do not want to participate, you are allowed to do so. You will not lose anything if you decide not to be part of the study anymore. You can contact the following person or the researcher if you have questions regarding the study.

Contact for Additional Information:

Supervisor: Dr. Florence Naab

Maternal and child Health Department

School of Nursing and Midwifery

College of Health Sciences

University of Ghana, Legon.

Telephone: 0263741717/0204522332

Email: fnaab@ug.edu.gh/florencenaab@gmail.com

Rights as a Participant

This study was reviewed and approved by the institutional review board of the Noguchi memorial institute for medical research (NMIMR-IRB). Any questions about your rights as a participant in the study can be directed to the NMIMR-IRB office on working days between the hours 8am to 5pm through the office line 0302916438 or by email address nirb@noguchi.ug.edu.gh

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title (Indigenous newborn care practices among primiparous mothers) has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

_____ _____

Date Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Date Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____ _____

Date Name Signature of Person Who Obtained Consent

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Appendix E: General Profile Participants

Pseudonyms	Age	Marital Status	No. of Children	Educational Background	Language
Ama	19	Married	1	SHS	Mampruli
Sika	30	Married	1	No formal education	Mampruli
Naana	21	Married	1	Primary	Mampruli
Akos	18	Married	1	Primary	Mampruli
Kofimame	18	Married	1	No formal education	Mampruli
Nanama	23	Married	1	No formal education	Mampruli
Dede	18	Married	1	JHS	Mampruli
Akua	19	Married	1	No formal education	Mampruli
Abena	17	Married	1	Primary	Mampruli
Mafia	24	Married	1	No formal education	Mampruli
Yaa	20	Married	1	JHS	Mampruli
Ohemaa	22	Married	1	No formal education	Mampruli

Appendix F: Codes and Description

Table 4.3: Codes and their Description

CODES	DESCRIPTION
IDE	Identified INC practices
ATT	Attitudes
CUL	Cultural
PBC	Perceived Behavioural Control
INT	Intention
BEH	Behaviour
KNO	Knowledge