University of Ghana http://ugspace.ug.edu.gh

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

SOCIO-CULTURAL FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING PRACTICES AMONG WOMEN IN THE BAWKU WEST DISTRICT, GHANA.

BY

NDEKUGRI JOYCE

10599341

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

JULY, 2017

University of Ghana http://ugspace.ug.edu.gh

DECLARATION

I, JOYCE NDEKUGRI declare that except for the citing of other people's work which has been duly acknowledged, this work is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Signature……Date……

Joyce Ndekugri

(Student)

Signature…… Date……

Dr. Franklin Glozah

(Supervisor)

University of Ghana http://ugspace.ug.edu.gh

DEDICATION

I dedicate this work to my father Chief superintendent Peter A. Ndekugri, my mum Magdalene Assam and to all my siblings Jonah, Joana and Joshua for their wonderful support and encouragements throughout this programme.

University of Ghana http://ugspace.ug.edu.gh

ACKNOWLEDGEMENT

First of all I would like to thank God Almighty for his grace and mercies which has brought me this far. I would also like to express my profound gratitude to the following for their immense support and contribution from the beginning of my dissertation to the end:

My academic supervisor Dr. Franklin Glozah who sacrificed so much of his time in reading my work and correcting me when necessary and Dr. Mercy Ackummey who also contributed during my protocol writing.

To the Bawku West District hospital matron and administrator for their support throughout my data collection exercise and also to my field assistants who made the data collection exercise a success.

To the opinion leaders and elders who made it possible for the focus group discussion to take effect and to all my respondents for spending their time to be interviewed.

University of Ghana http://ugspace.ug.edu.gh

ABSTRACT

Background: The world health organization (WHO) recommends 6 months of exclusive breastfeeding starting from birth with establishment of early breastfeeding within 30 minutes after delivery. However, introduction of supplementary fluids to infants is a common practice among women globally. Socio-cultural factors have been found to influence women's decision to exclusively breastfeed depending on the community in which they live. The main objective of this study was to investigate social and cultural factors that influence the decision of women to exclusively breastfeed in the Bawku West District of Ghana.

Methods: A cross-sectional study using mixed methods was carried out with both quantitative and qualitative methods. Four hundred and three women of reproductive age (from 15 to 45 years old) attending anti-natal care and with infant's who are up to six months old participated in the study. Participants completed self-report questionnaires and participated in focus group discussions. Chi-square and logistic regression tests were used to determine the association and significance of exclusive breastfeeding and the socio-cultural factors associated with exclusive breastfeeding.

Results: Results of the quantitative analysis showed that respondents with high level of knowledge on breastfeeding practices were 5.17 times likely to engage in good breastfeeding practices compared with those with low level of knowledge. Also, those who received help at home, or a community health nurse at the CHPS compound were 1.32 times likely to practice good breastfeeding practices compared with those who received help from family or friends. Results from the focus group discussions also showed that women were restricted to exclusively breastfeed due to cultural beliefs such as beliefs that colostrum paves way for 'better milk' to flow therefore mothers should not feed their babies with it. Also, some women believed that if a baby is not given other foods in addition to breast milk and the baby dies later, it means the baby died of hunger and that their ancestors will be unhappy.

University of Ghana http://ugspace.ug.edu.gh

Conclusion: There is a need to improve the strategies, education and training on information concerning exclusive breastfeeding in order to reach mothers with low knowledge about the benefits and optimal duration of exclusive breastfeeding. Additionally, negative attitudes and beliefs on breastfeeding should be addressed appropriately as they also influence exclusive breastfeeding. The Ghana health service should motivate health workers to continue to offer help in breastfeeding to lactating mothers after delivery.

University of Ghana http://ugspace.ug.edu.gh

TABLE OF CONTENTS

DECLARATION i
DEDICATION ii
ACKNOWLEDGEMENT iii
ABSTRACT iv
LIST OF TABLES x
LIST OF FIGURES xi
ABBREVIATIONS xii
DEFINITION OF TERMS xiii

CHAPTER ONE 1
INTRODUCTION 1
1.0 Background to the study 1
1.1 Problem statement 4
1.2 Justification of the study 5
1.3 Research questions 5
1.4 Research Objectives 6
1.4.1 General objective 6
1.4.2 Specific objectives 6
1.5 Theoretical framework 6
1.5.1 Environmental Influence 6
1.5.2 Personal factors 7
1.5.3 Behavioral factors 8

CHAPTER TWO 10
LITERATURE REVIEW 10
2.0 Introduction 10
2.1 The historical context of breastfeeding 10
2.2 Exclusive breastfeeding benefits 11
2.3 Infant Feeding in Ghana 14
2.4 Suboptimal feeding and it consequences 15
2.5 Social influence in exclusive breastfeeding 16
2.6 Cultural influence in exclusive breastfeeding 18

University of Ghana http://ugspace.ug.edu.gh

2.7 Knowledge level in exclusive breastfeeding 20
2.8 Knowledge on Breastfeeding practices currently in Ghana 21
2.9 Breastfeeding information sources 22
2.10 Summary 23

CHAPTER THREE 24
METHODOLOGY 24
3.0 Introduction 24
3.1 Study design 24
3.2 Area of study 24
3.3 Analysis of health sector 25
3.4 Target population 26
3.4.1 Inclusion criteria 26
3.4.2 Exclusion criteria 26
3.5 Research variables 26
3.5.1 Dependent variable 26
3.5.2 Independent variables 26
3.6 Sample size 26
3.7 Data collection instruments 27
3.7.1 Questionnaire 27
3.7.2 Focus group discussion guide 29
3.8 Sampling technique 29
3.9 Data collection techniques 30
3.9.1 Quantitative data 30
3.9.2 Qualitative data 30
3.10 Data processing and analysis 32
3.10.1 Quantitative 32
3.10.2 Qualitative 32
3.11 Data quality control 33
3.12 Ethical Consideration 34
3.12.2 Consenting 34
3.12.3 Privacy and Confidentiality 34
3.12.4 Data Storage/Security 34
3.12.5 Data Usage 35

University of Ghana http://ugspace.ug.edu.gh

3.12.6 Voluntarily Withdrawal 35
3.12.7 Compensation/Payments 35
3.12.8 Conflict of Interest 35

CHAPTER FOUR 36
RESULTS 36
4.0 Introduction 36
4.1 Socio-Demographic Characteristics of participants 36
4.2 Social factors influencing exclusive breastfeeding practices 38
4.3 Breastfeeding Social Practices 40
4.4 Cultural beliefs that influence the decision to breastfeed 44
4.5 Knowledge on exclusive breastfeeding practice 45
4.6 Level of Knowledge on exclusive breastfeeding practice among respondents . 47
4.7 Factors associated with Knowledge on exclusive breastfeeding practice among respondents 47
4.8 Socio-demographic characteristics influence on level of knowledge on Breastfeeding Practices 50
4.9 Socio-demographic factors influencing exclusive breastfeeding practices among women 52
4.10 Social factors influencing exclusive breastfeeding practices among women . 54

CHAPTER FIVE 57
DISCUSSIONS 57
5.0 Introduction 57
5.1 Socio-demographic characteristics 57
5.2 Social factors influencing exclusive breastfeeding practices 58
5.3 Cultural reasons influencing women's decision to exclusively breastfeed 59
5.4 Women's knowledge level in breastfeeding 60
5.5 Limitations of the study 61

CHAPTER SIX 62
CONCLUSION AND RECOMMENDATION 62
6.0 Conclusion 62
6.1 Recommendations for policy 63

University of Ghana http://ugspace.ug.edu.gh

6.1.1 Recommendation for practice 63
6.1.2 Recommendation for future research 64

REFERENCES 65
APPENDICES 73
Appendix 1: Informed Consent 73
Appendix 2: Questionnaires 76
Appendix 3: Focus Group Discussion Guide 80

University of Ghana http://ugspace.ug.edu.gh

LIST OF TABLES

Table 4.1: Socio-Demographic Characteristics of participants..... 37
Table 4.2: Breastfeeding practices 39
Table 4.3: Breastfeeding social practices..... 42
Table 4.4: Knowledge on Breastfeeding..... 46
Table 4.5: Knowledge on Exclusive breastfeeding practices among mothers..... 49
Table 4.6: Socio-demographic characteristics influence on knowledge level in breastfeeding practices 51
Table 4.7: socio-demographic characteristics influencing exclusive breastfeeding practices among women 53
Table 4.8: Social factors influencing exclusive breastfeeding practices..... 55

University of Ghana http://ugspace.ug.edu.gh

LIST OF FIGURES

Figure 1.1: The social cognitive theory (Bandura, 1986) 9
Figure 4.1: Breastfeeding practices among women 40
Figure 4.2: Knowledge on Breastfeeding practices among mothers.....47

University of Ghana http://ugspace.ug.edu.gh

ABBREVIATIONS

EBF:	Exclusive breastfeeding
FDG:	Focus Group Discussion
GDHS:	Ghana Demographic and Health Survey
GHS:	Ghana Health Service
GSS:	Ghana Statistical Service
LLLI/CBI:	La Leche League International Centre of Breastfeeding Information
PHC:	Population and Housing Census
PMTCT/CT	Prevention of Mother-to-Child Transmission
UNICEF:	United Nations Children's Fund
USAID:	United States Agency for International Development
WHO:	World Health Organization

University of Ghana http://ugspace.ug.edu.gh

DEFINITION OF TERMS

Colostrum: Colostrum is the first fluid that comes from the breast immediately after birth. It is yellowish in color and contains high protein and anti-bodies. It is often described as the first form of 'immunization' for a new born child.

Exclusive breastfeeding: refers to when infants are not given any other food or liquid including water during the first six months after delivery.

Pre-miparous mothers: women who have given birth for the first time.

Neonate: refers to a new born baby especially one that is less than one month old.

Pre-lacteal feeds: Pre-lacteal feeds are fluids given to new-borns before breastfeeding is initiated.

Postpartum: the immediate period after child birth especially the first 6 weeks.

Stunting: it is also referred to as 'shortness'. It is a condition characterized by low height for age that is caused by insufficient nutrition over a long period and regular infections.

Wasting: this is also known as 'thinness'. It is a condition characterized by low weight for height that is caused by acute food shortage.

Weaning: this refers to a practice in the course of breastfeeding during which infants are gradually introduced to non-breast milk foods and thereby leading to cessation of breastfeeding.

Wet nurse: a woman who breastfeeds another woman's baby. In addition to the feeding, a wet nurse may also be tasked to take care of the baby usually for a fee.

Early initiation: putting baby to breast to start suckling as soon as the baby is born (preferably within the first 30 minutes).

University of Ghana http://ugspace.ug.edu.gh

CHAPTER ONE

INTRODUCTION

1.0 Background to the study

Breastfeeding is defined as the normal way of providing young infants with the nutrients they need for healthy growth and development. Colostrum, which is a yellowish and sticky breast milk produced at the end of pregnancy is regarded as the perfect food for the new born (Tanash, 2014). If mothers have adequate knowledge in breastfeeding, or are well supported by society to practice proper breastfeeding as well as receive support from healthcare systems, they will be able to practice good breastfeeding.

Exclusive breastfeeding on the other hand is defined by WHO (2016) as a practice where the infant receives only breast milk, no other liquids or solids are given, not even water with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines. For the baby to grow well and live healthy, breast milk is considered as the ultimate nutritional source (Kramer & Kakuma, 2012).

The global public health recommendation is that infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health (WHO, 2003). The reason is that, breast milk is free from germs and protects the infant from contracting certain diseases in the first few months of life and it also contains all the required food nutrients that will help in the proper growth and development of the infant (GDHS, 2014). In addition, the mother's antibodies in breast milk help build the immunity of the infant to fight diseases or infections. This is why early supplementation is not encouraged, because giving the infant food supplements first of all, predisposes the infant to pathogens and thus increases their risk of infections. Secondly, breast milk consumption by the infant will be minimal, suckling as well and breast milk production will be low. Also, supplementary foods in resource poor areas (rural areas) are usually not of good quality for babies (GDHS, 2014).

University of Ghana http://ugspace.ug.edu.gh

Beside the fact that it contains all the required nutrients for the proper growth and development of the baby, breast milk also reduces morbidity and mortality, protection from infectious diseases as a short term benefit to the baby (Arifeenetal, 2001; Kramer and Kakuma 2012). Also, it revitalizes the infant's immune system protecting them from diarrhea and respiratory infections and these two are the leading causes of infant mortality in developing countries. Breast milk increases the baby's reaction to vaccination (UNICEF, 2006). Breast milk is readily available, germ free and also very nutritious which makes it optimal source of food for babies. Its capacity to reduce the occurrence of many illnesses in early life and in adulthood, as well as helping to enhance the health of the mother (Naanyu, 2008) cannot be neglected by lowering the dangers of deadly postnatal hemorrhage, breast and ovarian cancer, anemia, and birth spacing. Breastfeeding also allows the mother to recover before she gets pregnant again. More importantly, the physical breastfeeding relationship allows mothers and babies to bond and grow some kind of close attachment from the onset (Leon-Cava et al., 2002).

The rate of Exclusive breastfeeding has become better, taking into account the advantages of exclusively breastfeeding with the global rate at 37% of infants being breastfeed (UNICEF, 2009; UNICEF, 2011). A study by Ochola (2008), discovered diverse factors that affect breastfeeding practices. Environmental, socio-cultural and economic factors combine with the protective effects of breastfeeding (Mihrshahi et al., 2003).

Organizations such as The World Health Organization (WHO), United Nations Children's fund (UNICEF) and others encourage exclusive breastfeeding as it sees that as convenient, and also as solution for child survival that is less expensive (Nguyen, 2009). According to Nguyen (2009), Lots of awareness has been created by national government, multinational organizations and non-governmental and private sector organizations to enlighten mothers and families as a whole on the importance of breastfeeding so they can adopt it and make it a practice worldwide. A cohort study that was conducted in rural Ghana stated that about 22%

University of Ghana http://ugspace.ug.edu.gh

of infant mortality could be averted if babies are breasted within the first few hour of delivery in resource poor areas in Ghana (Edmond et al, 2006; Jean Baker, Sanei & Frankline, 2006). In addition, Jean Baker et al. 2006 added that the risk of infant mortality was very much higher among babies who were not exclusively breastfed than those who were given breast milk for six months without any other semi solid foods or water.

In spite of all the educational messages, campaigns by mass media on the essence of proper breastfeeding and exclusive breastfeeding practices, a study by Yadavannavar and Patil also revealed that some mothers are influenced by their cultural norms, beliefs on what to feed their babies with (Yadavannavar & Patil, 2011). Exclusive breastfeeding is seen as 'deadly' in some cultures thus they introduce the baby to herbs, waters which they believe helps in the baby's growth, quenches the baby's thirst and also serves as better food (Naanyu, 2008). This is rather superstitious as breastfeeding is well recommended worldwide by health professionals to every infant for a healthy growth and development. It is also believed that infants have to learn how to differentiate food flavors, eat and digest other food, which in reality rather appears not necessary since the infant is too little to know which taste is better or not (Nyaanu 2008).

Even though, it is expected that infants are exclusively breastfed for not less than six months after birth, (Luther, 2000; Nyaanu, 2008), most woman globally, usually feed their babies with other supplementary foods (Nyaanu, 2008). Mothers getting rid of the colostrum which is the first milk that is produced from the breast, and also having this feeling of the breast milk not being enough for the baby or not healthy enough for the baby thereby introducing the baby to pre-lacteal feeding exposes the baby to infections in that the baby is deprived of colostrum which is important for the baby because it helps build antibodies that fight against diseases. These are some socio-cultural beliefs that hinder exclusive breastfeeding and proper child growth (Yadavannavar & Patil, 2011). Perceptions such as breastfeeding being 'physically

University of Ghana http://ugspace.ug.edu.gh

draining' could hinder exclusive breastfeeding practices especially when mothers have no access to nutritious food or even small amount of food (Naanyu, 2008).

1.1 Problem statement

About 1.5 million young infants die each year due to improper child feeding practices and mother's inadequate knowledge on exclusive breastfeeding practices (Nguyen, 2009).

Children in developing countries usually are not exclusively breastfed due to some socio-cultural practices that influence suitable infant feeding practices. These feeding practices differ from community to community (Sika, 2010). The situation is not different in Ghana, where a study was conducted on a percentage of infants who were being breastfed exclusively for a duration of six months in sub-Saharan Africa by the US population references bureau in a poster publication and Ghana was below 32% (Sika, 2010). Looking at the WHO/UNICEF's aim of achieving 75% and above of exclusive breastfeeding, obviously the figure for Ghana in that study was below 75% which means that there is still a lot more to be done in order to achieve a 75% or even more.

It has however been noticed that Ghanaian mothers do not deprive their babies of semi-solid foods in addition to the breast milk. Davids, Tagoe-Darko and Munkauria (2003) reported that water and glucose solution are commonly given to infants, beginning in the first few month of life with the notion that it is obligatory to give the infant water right after birth because they are thirsty as a result of fatigue from the delivery process or as a cultural sign or indication to welcome the baby into the world. The study went further to indicate that, instead of exclusively breastfeeding the babies, mothers loved to feed maize porridge which is commonly known as 'koko' to their babies in their first few months believing that, porridge makes the baby more satisfied than the breast milk (Davids, Tagoe-Darko & Munkauria, 2003). This explains reports by Ghana Demography and Health Survey in 2014 giving an estimated 22% of children in rural

University of Ghana http://ugspace.ug.edu.gh

areas of age 0-36 months in Ghana who were stunted and only 15% of those in urban areas being stunted.

Despite all efforts by health care providers to encourage the practice of exclusive breastfeeding, not much have been successfully attained as most researches done in these areas often focus more on the health-related aspect of exclusive breastfeeding, economic and environmental factors that hinder breastfeeding, and benefits of breastfeeding without looking at the socio-cultural influences particularly the knowledge, attitudes, beliefs, norms, friends and families which ultimately have an effect on mother's decision to exclusively breastfeed.

1.2 Justification of the study

Study will produce vital data on socio-cultural factors influencing exclusive breastfeeding in the Bawku West District, a resource poor setting in the Upper East Region. It is hoped that this study's findings will clearly define some various kinds of social and cultural beliefs that hinder the decision to practice exclusive breastfeeding which will be a helpful information to public health institutions and other stakeholders working on maternal and child health programs to outline the right interventions to push forward exclusive breastfeeding practices in the area in particular and in Ghana as a whole. It will also add to literature and help as a practical information for future research work.

1.3 Research questions

The following are the research questions of the study;

1. How do social factors influence exclusive breastfeeding practices among women in the Bawku West District?

2. What cultural beliefs influence the decision to exclusively breastfeed?

University of Ghana http://ugspace.ug.edu.gh

3. What are women's level of knowledge and attitudes towards exclusive breastfeeding practices?

1.4 Research Objectives

1.4.1 General objective

To investigate the socio-cultural factors that influence exclusive breastfeeding practices among mothers in the Bawku West District.

1.4.2 Specific objectives

Specifically, the objectives are to:

1. Explore social factors influencing exclusive breastfeeding practices among women in the Bawku West District
2. Examine cultural beliefs that influence the decision to exclusively breastfeed
3. Examine level of knowledge in exclusive breastfeeding practices among women

1.5 Theoretical framework

The study adopted the social cognitive theory (SCT) (Bandura, 1986). This theory explains human behavior in terms of a three-way, effective, corresponding model in which personal factors, environmental influences and behavioral factors constantly involved directly (Fig.1). The SCT synthesizes concepts and processes from cognitive, behavioral and emotional models of behavior change. The SCT elaborate on how an individual attains and sustains certain behavior patterns and allows for changes through interventions.

1.5.1 Environmental Influence

This looks at social factors and barriers that may influence behavior to change. This study therefore focuses on how family and friends could influence behavior to change as a social factor. For the objective of this study which seeks to examine the sociocultural influences on exclusive breastfeeding practices, it is however important to look at the roles of friends,

University of Ghana http://ugspace.ug.edu.gh

families in influencing breastfeeding process. Observational learning is one of the basic principles of the social cognitive theory (Bandura, 1986), this explains the act of learning by observing what others do. Thus, women may either be influenced positively by family and friends to breastfeed exclusively or maybe observe and learn the negative which will consequently affect their decisions to exclusively breastfeed. A study has also shown that friends, families and community play a role to mix or complementary feeding which have influence on exclusive breastfeeding practices (Yadavannava & Patil, 2011).

1.5.2 Personal factors

This study seeks to investigate the socio-cultural factors that influence exclusive breastfeeding among women in the Bawku West District, therefore, personal factors here looks at beliefs and perceptions of women in breastfeeding exclusively. Women who have a strong belief about a particular subject automatically change their behavior about that particular thing. In other words, women who believe exclusive breastfeeding is a bad practice will not exclusively breastfeed and those who believe it is a good practice will continually breastfeed exclusively. According to a study undertaken in Kintampo in the Brong Ahafo region of Ghana, the women had their own misconception about the colostrum being dirty and harmful to the baby therefore, some mothers preferred to hold up on the breast milk for at least 2 days in order to get 'good milk'. However, other mothers chose to express the colostrum for the baby to feed instead of allowing the baby to directly suck it from the breast (Tawiah-Agyeman et al., 2005), Which increases the risk of infection and deprives the infant the benefit of colostrum. Also, perceptions of breastfeeding as 'physically draining' especially where lactating mothers find limited access to nutritious and adequate amounts of food for themselves could have an influence on breastfeeding exclusively (Nyaanu, 2008).

University of Ghana http://ugspace.ug.edu.gh

1.5.3 Behavioral factors

The behavior aspect of the model looks at the person's attitude which could cause a change in the behavior of a person. Knowledge level of mothers in breastfeeding is perfect example under behavioral factors for the purpose of this study. A good and adequate knowledge in breastfeeding will influence a person to practice exclusive breastfeeding, it also suggests that low knowledge in breastfeeding will negatively influence the attitude of a person's decision to exclusively breastfeed, thus mothers will not see the importance of breastfeeding their infants. About 46% of woman in Ghana with better education level such as secondary and above are more likely to exclusively breastfeed their babies within the first hour of delivery as compared to the uneducated women (GSS, 2004). Additionally, bad attitudes towards breastfeeding may also result in role conflict among mothers and when this happens exclusive breastfeeding will be altered.

Conceptual Framework

Based on the explanation of the theoretical framework above, the conceptual framework in Figure 1.1 was adopted as it helps to recognize and appreciate the factors that influence exclusive breastfeeding practices and the necessary interventions needed to sustain this behaviour in accordance with the objectives of the present study.

University of Ghana http://ugspace.ug.edu.gh

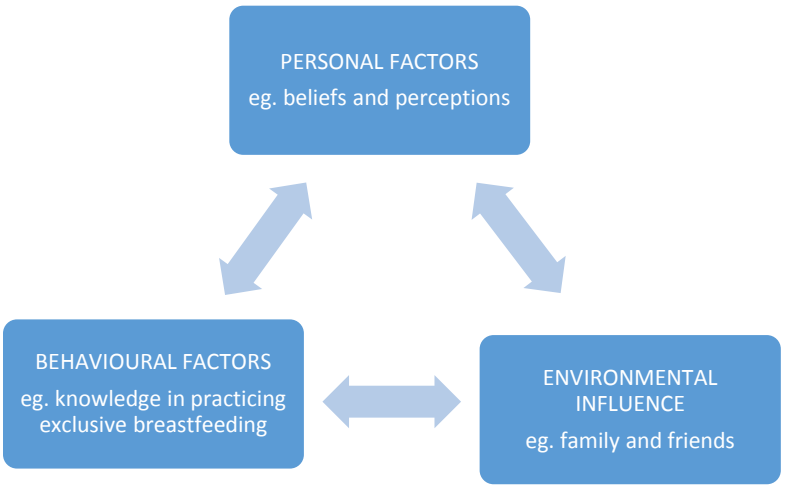


Figure 1.1: Conceptual framework based on the Social Cognitive Theory (Bandura, 1986)

University of Ghana http://ugspace.ug.edu.gh

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This study utilized both empirical and theoretical literature. The empirical literature consists of results of research done on related topics that addresses issues on historical context of breastfeeding, exclusive breastfeeding benefits, infants feeding in Ghana, as well as social factors in exclusive breastfeeding, cultural factors in exclusive breastfeeding and the knowledge level in exclusive breastfeeding. The theoretical review used the Social Cognitive Theory to explain the phenomenon under study.

2.1 The historical context of breastfeeding

Many years ago, breast milk was seen as the optimal source of food and necessary for infants wellbeing, thus motive behind the diary gods being symbolized with their breasts uncovered (Papastavrou, Genitsaridi, Komodiki, Paliatsou, Midw et al., 2015). Even though it was advisable for mothers to breastfeed their own babies, any time there was insufficient production of breast milk for the baby's consumption, mothers resorted to the employment of wet nurses to breastfeed their babies for them and this was a practice by the Babylonians, Egyptians, Greeks, and Romans (Papastavrou, Genitsaridi, Komodiki, Paliatsou,Midw et al., 2015).

Indeed until the 19th century, nearly every society practiced breastfeeding religiously no matter their culture or the circumstances surrounding them (Sokol et al., 2007). Contracting other woman to breastfeed their babies became common and widespread as women who were sick could not breastfeed their babies and also those who died leaving behind their babies were being breastfed by other women commonly referred to as wet nurses. This practice was very common with people from wealthy families.

The first breast milk substitute was innovated in the 19th century by a German chemist by name Justus Von Liebig. Later after him in 1943, was Henri Nestle who is also a German scientist.

University of Ghana http://ugspace.ug.edu.gh

He also innovated a breast milk substitute known as 'farinelactee' (cereal flour with milk) when he arrived in Switzerland (Palmer, 2009).

As more and more announcements were made concerning breast milk substitutes and more people became aware of it, the rich working mothers began to patronize it and with time, the poor working mothers also joined. Numerous infants who were fed with other semi solid foods aside the breast milk suffered from infectious diseases such as diarrhea and also died often than those infants who were breastfed with breast milk only (exclusive breastfeeding). Infants who were fed with mixture of cereal flours, water and animal milk in southern Germany had a high rate of infant mortality of about 400 deaths per 1000 live births which is four times that of Norway's infant mortality rate (Palmer, 2009).

However, in the early part of the 20th century, people became much aware of the risk of artificial breast milk for infants which resulted in much refinement of breast milk substitutes and this made artificial infant milk a better and safer option for mothers because it was stored in hygienic facilities (Crowther, Reynolds and Tansey, 2009). Nonetheless, infants who are fed with breast milk substitutes have higher risk of morbidities and mortalities as compared to those who received breast milk only. A study in Boston, 1910 for example indicated that infants who are artificially breastfed are six folds likely die than their breastfeeding counterparts (Palmer, 2009).

2.2 Exclusive breastfeeding benefits

Breastfeeding has been and still is the only best way of giving vital nutrients to infants for better growth and brain development (myelination). It is seen and recognized as free from bacteria that helps protect the infant from infections and disease and most importantly helps reduce infant deaths and these are some of public health's goals (Brulde, 2011). Thus with

University of Ghana http://ugspace.ug.edu.gh

proper enforcement and effective breastfeeding behavior or exclusive breastfeeding these public health goals could be achieved.

Exclusive breastfeeding according to Vennemann and Colleagues (2009) in their study reported that infants were secured from certain childhood death syndrome because they were exclusively breastfed decreasing the death rate by 50% at all ages during infancy; these benefits have been reported to exhibit dose-response relationship, that is, health gains increase with increases in duration and exclusivity. Exclusively breastfed babies for the six months period are most of all secured from all major childhood diseases conditions such as diarrhea, gastrointestinal tract infection, allergic diseases, diabetes, obesity, childhood leukemia and lymphoma, inflammatory and bowel disease (WHO, 2012).

Breastfeeding is one of the practices that have been proven to have direct links to reducing infant mortality by providing adequate nutrition for growth and immune factors against infections. Breastfeeding is associated with higher IQ scores and better school performance resulting from increased cognitive development (myelination) (Arifeens et al., 2001). There are also reduction in incidences and severity of allergies, enhanced visual, motor and oral development and better emotional development (Klya, 2007).

All the required quantity of nutrients needed for the infant's growth and development is found in breast milk (WHO, 2002). Additionally, nutrients in formula feeds are not easily absorbed and digested as compared to that of breast milk. An example is protein profile in breast milk being easily digestible and also different from breast milk substitutes.

Infants are protected from bacteria and other infections because breast milk contains antibodies that help fight against those infections (Bang et al., 2005). The breast milk does not go through any form of preparation before feeding the infant therefore, it is free from contamination. And also initiating breast milk to the baby within the few hour of delivery decreases infant deaths

University of Ghana http://ugspace.ug.edu.gh

and infections in their early life (Bahl et al., 2005) by providing the infants with immunity to fight against infections and immunological conditions such as haemophilus influenza, meningitis, asthma and other respiratory illnesses, diarrheal diseases, ear infections/otitis media (Arifeen et al., 2001) also, urinary tract infections and necrotizing enterocolitis (WHO, 2000).

Many diseases and infections could have been avoided each month by exclusive breastfeeding. According to a study in the United Kingdom, (Quigley et al., 2007) reported that an approximately 53% of diarrheal hospitalization, 27% of lower respiratory tract infections hospitalization could have been avoided, 31% and 25% by partial breastfeeding respectively. The study concluded that exclusive breastfeeding or continues breastfeeding fortifies the infants and as well prevent them from critical morbidities in present-day United Kingdom hence, exclusive breastfeeding will be of great interest to public health because it helps in population level increase. Similarly, studies in Ghana have also revealed several benefits of exclusive breastfeeding to the mother and the baby (Aidam et al; 2005; Tawiah-Agyeman, et al, 2005).

Losing weight and fat are some of the advantages of breastfeeding to the mother. Also, it helps in a quick recuperation after child delivery due to reduced postpartum bleeding, enlarge uterine involution, speedy return of the uterus to pre-pregnancy weight and reduced post natal depression. Some of the benefits still include less exposure to ovarian and breast cancers and osteoporosis. A mother who exclusively breastfeeds her baby does not ovulate and for this reason the risk of her getting pregnant is very minimal. Additionally, constant breastfeeding at night increases an abnormal absence of menstruation (amenorrhea) (Richard, 2004). Due to abnormal absence of menstruation during lactation period, there is longer birth spacing which also helps improve the health of both the mother and the baby because the uterus gets enough time to sufficiently prepare for the next pregnancy. Early breastfeeding strengthens bonding

University of Ghana http://ugspace.ug.edu.gh

between mother and baby, enlarges the chances of mothers to have successful breastfeeding and longer duration of breastfeeding (WHO, 2003).

2.3 Infant Feeding in Ghana

Breastfeeding practices has become an important part of infant feeding in Ghana and in some sub-Saharan African countries. Data available on infant in the past years is not different from the present data on infant feeding with about 90% of women practicing breastfeeding. Mothers who initiate breastfeeding ranges between 98% in 1979 and 99.7% in 1989 and also 99.7% in 2003 (LLLI/CBI, 2003). Breastfeeding duration has also remained as high as the initiation rate over the last decade. Malnutrition and infant mortalities should have been a thing of the past in Ghana by now looking at the rate of breastfeeding initiation and duration in the past. For instance in 1979/80 mothers breastfed averagely for as long as 15 months but Ghana is still faced with issues of malnutrition among infants. Instead of mothers feeding infants with only breast milk especially during their first six months of life, they add other foods such as water porridge etc. For instance, a study by Davis et al. (2003) on complementary feeding practices in Ghana revealed that infants were largely fed with other complementary food such as glucose solution and water in their first few months of life. Children constitute a higher proportion of the population in Ghana and malnutrition among these children remain high. Data on measurement of human body from the Ghana Demographic and Health Survey (2008) reported that 28% of all under five children are stunted (chronic malnutrition) and 40% of the cases involve children age 18-23 months. Children in rural areas (32%) are more likely to be stunted than in urban areas (21%). The report similarly estimated that 9% were wasted (acute malnutrition) whereas underweight children (combination of chronic and acute malnutrition) are 14% (GSS and IFC Macro, 2009).

Malnutrition is essentially as a result of unsuitable feeding practices and with episodes of septic illnesses. Given the established relationship between malnutrition and a range of untimely

University of Ghana http://ugspace.ug.edu.gh

health consequences as well as infant deaths, slowed growth, disorder and learning difficulty (UNICEF, 2009) etc. The need for enhancing and making all efforts to help improve the condition is not only for the health of the child but also to help achieve three of the millennium development goals which include elimination of hunger, reduction in child mortality, and reduction in maternal mortality.

According to the Ghana statistical service & GDHS (2004), breastfeeding duration in Ghana is long with about 98% of infants being still breastfed between ages 9 to 11 months old and about 50% between ages 20 to 23 months. Despite the fact that about 99% of infants under six months are being breastfed, however, it is only about half thus 52% who are exclusively breastfed as recommended.

2.4 Suboptimal feeding and it consequences

Suboptimal infant feeding simply refers to introducing the baby to other food in addition to the breast milk during the six months of exclusive breastfeeding (Kathryn et al., 2003). Suboptimal feeding contributed to infant death of about 1,600 annually in Ghana, of which two-thirds happened during the neonate period (GSS, 2004).

A worldwide evaluation of infant mortalities and years of life that has been lost due to sub optimal feeding among children in developing world indicated that diarrheal diseases and lower respiratory tract infections rated for 55% and 53% respectively within the first six month of the infant's life, and in the second six months, 20% and 18% and in the second year of the children's life, 20% was recorded for all-cause deaths (Lauer et al., 2006). Conclusion drawn from this evaluation indicated that due to suboptimal feeding alongside breastfeeding in developing countries, about 1.45 million lives were lost globally representing about 117 million years of life. Exclusive breastfeeding for the first six months can minimize infant mortalities by 13 to 15% if only it is universally practiced (Lawn et al, 2004; Gareth et al, 2003).

University of Ghana http://ugspace.ug.edu.gh

2.5 Social influence in exclusive breastfeeding

Breastfeeding is an optimal way of feeding a baby and it becomes a lifestyle and a behavior that must be learned. Even though it is the baby's mother who can provide breast milk, it is helpful for the mother and the baby if the father, family, or significant others stimulate this healthy relationship (American College of Nurse-Midwives, 2002). The woman's partner and family members or friends can be an important source of emotional support while the mother is breastfeeding the baby. This gives the mother the zeal to exclusively breastfeed.

Families and friends may affect breastfeeding positively or negatively. By positively making sure the practice is continues or negatively by introducing other complementary foods to the infant. Pletta, Englash and Choby (2000) reported that "a mother's confidence in her ability to breastfeed and a strong family support system" are associated with prolonged breastfeeding practices (Pletta et al., 2000).

Wambach and Cohen, (2009) also reported that women who were mostly supported by their family and friends are likely to prolong breastfeeding however, according to Ochola (2008) mothers can be negatively influenced in the sense that when they are being pressured by their family and friends to introduce other foods such as porridge etc. to the infants and also when there is much demand on time against other engaging duties.

It is reported that paternal grandmothers are often the major origin of influence on breastfeeding practices in Africa, Asia and South/Latin America (Kerr et al., 2008). It can be said that a mother's decision to breastfeed her child is largely dependent on how her peers or neighbors choose to breastfeed their babies (Sika, 2010), they however feed their babies just like how their peers or even people they look up to breastfeed their babies in the community they live in thus mothers are influenced by women in their social groupings.

University of Ghana http://ugspace.ug.edu.gh

Various studies have identified that grandmothers remarkably influence breastfeeding practices of lactating mothers. For instance, a study by Lulie et al. (2005) reported that discarding of breast milk or discontinuing breastfeeding by lactating mothers within the first month was significantly linked to grandmothers from both sides who practically encourage the breastfeeding mother to introduce other forms of semi-solid foods such as tea, water, milk products. Therefore, according to the study, a distance from the grandmothers was a good option to exclusively breastfeed the babies for six month.

The frequency of exclusive breastfeeding is less among infants who live together with their grandmothers as compared to those who do not live with their grandmothers. This was reported in an exhaustive study in Natal state of Rio Grande do (Susina et al., 2005). According to USAID/GHS, (2006) husbands, mothers, mother in-laws and grandmother who are all members of the family and some friends carry on some socio-cultural practices of both good and bad influence on exclusive breastfeeding. For instance a woman's decision to breastfeed may be affected by the perceived or actual attitudes of the child's father, other family members, friends and amount of support she may have to carry her decision through (WHO, 1998). This is not far from the personal factors of the social cognitive theory which explains that women who have a strong belief about a particular thing will change their behavior about it thus women who believe exclusive breastfeeding is a bad practice will not exclusively breastfeed and those who believe it is a good practice will do so religiously. Also, observational learning is said to be one of the basic principles of the social cognitive theory (Bandura, 1986) which explains the act of learning by observing what others do. This goes to explain the fact that women usually observe their friends and family and adopt their ways. They believe everyone is doing so that is the right way of doing things. How their peers breastfeed their babies are how they also tend to breastfeed theirs. Whatever decision a person takes to participate in anything is

University of Ghana http://ugspace.ug.edu.gh

greatly influenced by the people around them and these people could either be friends, family members or colleagues at work or even from the same church (Berton, 2008).

2.6 Cultural influence in exclusive breastfeeding

Cultural practices may vary from community to community. They may be beliefs, norms, and tradition in a particular community that may not appreciate the practice of exclusively breastfeeding a child. There are several perceptions and superstitious beliefs concerning exclusive breastfeeding for instance, the perception of insufficient breast milk, fear of dying or becoming too sick to breastfeed are examples (Fjeld et al., 2008).

There have been many educational campaigns by WHO, UNICEF, the MOH/GHS and breastfeeding advocates through health workers on the importance of colostrum, however some cultures in Africa, including Ghana, still consider colostrum as being dirty and therefore discard it (Tawiah-Agyemang et al, 2005; Adjei and Schubert, 2003).

In India, there is a belief also that the mother does not produce breast milk until 2-3 days' postpartum which delays initiation of breastfeeding leading to discarding of colostrum (Bandyopandhyay, 2009). Also in Lebanon, women have this belief that a mother could potentially risk her baby's life through breastfeeding because they also believe that mothers have an inherited inability to produce breast milk or having 'bad' milk in the first few days of delivery thus they do not breastfeed until after a few days. They also have the belief that mothers could transmit abdominal cramps to infants through breast milk during the first few days of delivery (Osman Zein and Wick, 2009).

These findings agree with those of many studies by (Xu et al. 2009), (Ochola, 2008) and (Yadavannavar & Patil, 2011) which have shown that women perceive breast milk as inadequate is a reason for discontinuing breastfeeding and exclusive breastfeeding practices.

University of Ghana http://ugspace.ug.edu.gh

In Ghana however, a study conducted by Awumbilla (2003) in the Bawku area reported that a quarter of mothers referred to colostrum as 'blood that has been in the breast for nine months throughout the pregnancy' and therefore, it should be discarded and breast milk should only be introduce to the baby when the 'white milk' starts to flow. welcoming a baby with water within the first hour to 3 days after delivery is a customary right and very essential for the people in Bawku area and this is to fulfil their customary purpose of ushering the baby into the family (Awumbilla, 2003) with a mixture of shea-butter, glucose and herbs.

Also among the Kasem and Nakani in rural Ghana, (Aborigo et al. 2012) reported that, babies who were born to primiparous mothers were usually given to wet nurses while the mother is taken through a cultural cleansing for a period of 3 or 4 days depending on the sex of the child. This clearly shows that the baby is denied breast milk for 3 to 4 days as the mother is being cleansed.

Mothers in Ghana had their own respective reasons and beliefs responsible for the unsuitable breastfeeding practices of their babies. According to a study done in Kintampo in the Brong Ahafo region of Ghana, the women had their own misconception about the colostrum being dirty and harmful to the baby therefore, some mothers preferred to hold up on the breast milk for at least 2 days in order to get 'good milk'. However, other mothers chose to express the colostrum for the baby to feed instead of allowing the baby to directly suck it from the breast (Tawiah-Agyeman et al., 2005). This relates to the many other studies in Ghana that reported that colostrum was seen as a 'bad milk' and thus babies are denied the opportunity to feed on it (Adjei and Schubert, 2004; Odoi-Agyarko and Brew, 2008).

It is very common in most African traditional norms and customs that colostrum should be disposed of rather than to feed the baby hence, most mothers tend to introduce pre-lacteal food to the baby within the first few days until the 'better milk' starts to flow before they start

University of Ghana http://ugspace.ug.edu.gh

breastfeeding the baby (Tawiah-Agyeman et al., 2005). Additionally, the young mothers believe their breasts will be unfirmed and also they would be out of shape when they breastfeed their babies therefore, they do not practice exclusive breastfeeding (Shaw and Wallace, 2002).

From most of the literature reviewed, cultural practices do not appreciate the practice of exclusive breastfeeding for up to six (6) months as recommended by WHO (2009). Therefore, there is the need also to identify some cultural factors in the Bawku West District that may be similar to literature or distinctively influence exclusive breastfeeding practices in the area.

2.7 Knowledge level in exclusive breastfeeding

Adequate knowledge in exclusive breastfeeding practices could enable lactating mothers to know the importance and the health benefits of breastfeeding exclusively. However, it appears most lactating mothers do not know exactly what to do or whom to seek advices from when facing breastfeeding challenges. Arora et al, (2000) stated that infant feeding practice is both complex and has many sides. Familial factors thus relating or occurring in a family has a more intense effect on the practice of exclusive breastfeeding than that of the social, psychological, emotional and environmental factors which only play a role (Mayenrick & Marquis, 2002). Women who know about how they were breastfed when they were babies or know they were breastfed for a long time would show a longer duration of exclusive breastfeeding and total breastfeeding than those who do not know (Ekstrom, Widstrom et al. 2003; Mclachlan et al., 2006).

In a study on knowledge attitudes and practice of exclusive breastfeeding by Magre, Dery, Gaa (2016), they reported that most mothers would rather seek opinions and advice from peers and family members rather than health healthcare provider who would be of greater help and could also give accurate information on exclusive breastfeeding.

University of Ghana http://ugspace.ug.edu.gh

Breastfeeding knowledge may not necessarily be learnt but through experience. For instance, having been breastfed exclusively as an infant or having a sibling who was breastfed exclusively institutes breastfeeding as a norm for that individual and her household (Meyerink and Marquis, 2002).

A study which sought to experiment how effect of social network could foretell health related knowledge with information about the composition of an individual's network, including his/her socio-economic or demographic characteristics inclusive, showed that network variables remarkably adds to the mothers knowledge of breastfeeding (Fannie and Thomas, 2006).

2.8 Knowledge on Breastfeeding practices currently in Ghana

About 97% of Ghanaian women thus majority of them commence breastfeeding of their babies with an average breastfeeding duration of 23 months and this was shown in a national representative study in 2003. Meanwhile out of this percentage, it is only about 53% of women who exclusively breastfeed their babies for six months (GSS, 2004).

In 2006, it was noticed that infants between ages 0-3 months had a higher exclusive breastfeeding rate of about 65% (GSS, 2006) with baby girls being exclusively breastfed as compared to the boys.

About 49% of women with higher level education such as secondary and above are more likely to exclusively breastfeed their babies within the first hour of delivery while those women who have no education at all would do otherwise (36%). Mothers who are expecting more flow or production of breast milk introduce the babies to pre-lacteal feeding usually within the first three days while they wait for more breast milk flow. Mothers often introduce complementary feeding as early as 2 months thus about 38% of neonates under 2 months in Ghana are given supplementary foods and liquids aside the breast milk. Estimating average exclusive

University of Ghana http://ugspace.ug.edu.gh

breastfeeding rate in Ghana at 2 months, bottle feeding rate on the other hand being 12% (GSS, 2004).

2.9 Breastfeeding information sources

According to Aidam et al. (2005), most mothers reported they got breastfeeding advice from the midwife in their health facility. They also got some advice during postnatal, from friends and also some members of their family.

The study by Aidam et al. (2005) also revealed that mothers still have misconceptions about the colostrum being the wrong type of milk and the refusal to breastfeed the infant on the first day was as well a problem. The study also indicated that some women when given the needed advice, were very much willing to change their behavior in breast milk initiation, while some women on the other hand were already guided by some beliefs that ease their early initiation of breastfeeding practices. The issue however was that women only got advice from midwifes in the health facility after delivery but little was known about where they got advices when they went home. This therefore calls for the need to identify family/community practices that influence breastfeeding. The high antenatal attendance in the Bawku West District can be an excellent channel for advice on breastfeeding.

University of Ghana http://ugspace.ug.edu.gh

2.10 Summary

In summary, exclusive breastfeeding has increased in different parts of the world (UNICEF, 2009) with a less increase in Sub-Saharan Africa. This increase however, is below the WHO's recommendation of exclusive breastfeeding.

Studies from the above literature clearly indicates that social factors, cultural factors and knowledge level of mothers about exclusive breastfeeding practice in varying magnitudes in different set-ups. In addition, there is limited information on the socio-cultural factors influencing exclusive breastfeeding practices in Ghana.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology of the study. It focuses on the research design, the population for the study, sample size and techniques used in sampling, data collection and data management techniques, ethical considerations.

3.1 Study design

A cross-sectional study design using mixed methods - quantitative and qualitative techniques was used to examine the rate of exclusive breastfeeding and the socio-cultural factors associated with this practice.

3.2 Area of study

The study was carried out in Bawku West District a resource poor area in the Upper East Region of Ghana. The Bawku West District was created in 1988 under the local government system of 1988. The district covers an area of approximately 1,070 square kilometers which constitute about 12 percent of the total land area of the Upper East Region with a total population of about 94, 034 representing 9.0 percent of the region's total population. Males constitute 48 percent and females represent 52 percent. (PHC, 2010).

The District shares boundaries with Burkina Faso in the north, Binduri District to the East, Nabdam District to the West, East Mamprusi District to the south and Garu-Tempane District to the south east. The demographic characteristics are similar to the prevailing characteristics of predominantly rural Districts. These include large household sizes, high illiteracy rate that is about 80% with high birth and fertility rate.

University of Ghana http://ugspace.ug.edu.gh

Agriculture is the main source of income and Expenditure levels of households in the district, of the employed population, 81.0 percent are engaged as skilled agricultural, forestry and fishing workers, 6.1 percent in service and sales, 6.9 percent in craft and related trade, and 2.9 percent are engaged as managers, professionals and technicians. This clearly shows agriculture as the major occupation in the area.

3.3 Analysis of health sector

The health sector is divided into six (7) sub-districts, namely Binaba, Sapeliga/Googo, Tanga/Timonde, Till/Widnaba, Zebilla North, Zebilla South and Zongoire. The district has a total number of 31 health facilities comprising 1 hospital, 4 health centers, 9 clinics and 18 CHPS compounds and 3 private clinics as at the end of 2014.

Nurses to patient ratio in the district as at 2006 was 1 nurse to 1721 patients, in 2007 it was 1 nurse to 2486 patients, also it was 1 nurse to 1293 patients in 2008, and in 2009 it reduced to 1 nurse to 1072 patients. Doctors/patients ratio on the other hand in 2006 was 1 doctor to as many as 28691 patients, which increased to 1 doctor to 29007 patients in 2007, in 2008 it increased to 1 doctor to about 29326 patients and in 2009 the ratio was 1 doctor to 29649 patients. In 2010 the regional nurses/patient ratio was 1 nurse to 1,158 patients, it increased to 1 nurse to 1,161 patients in 2011 and then started declining to 1 nurse to 1,045 patients in 2012, it also improved in 2013 to 1 nurse to 1,715 patients and then as at 2014 it was a nurse to 1,669. Number of doctors in the region as at 2010 was 29, then declined to 25 in 2011, and increased in 2012 also to 28, it then to 32 in 2013, 34 in 2014.

The District has made efforts through public health programs to detect and manage communicable diseases such as HIV/AIDS, TB, Meningitis, Leprosy etc. Prevention of mother to child transmission (PM TCT/CT) sites have increased from 4 to 8, eradication of Guinea worm disease and polio, mainstreaming adolescent health; orientation and dissemination

University of Ghana http://ugspace.ug.edu.gh

Adolescent Reproductive Health, elimination of maternal death, neonatal tetanus, health promotions programs. Also, nutrition intervention programs such as exclusive breastfeeding, complementary feeding, and supplementary feeding and micronutrient deficiency control.

3.4 Target population

The target population for this study was breastfeeding mothers with infant aged 6 months and below residing in the Bawku West District. This group of women had breastfed or were still breastfeeding and they contributed to issues raised in this study.

3.4.1 Inclusion criteria

All mothers with infants' age six months and less residing in the Bawku West district willing to participate in the study.

3.4.2 Exclusion criteria

Mothers who were only taking care of another woman's baby and who were not residents in the Bawku West were excluded from the study.

3.5 Research variables

3.5.1 Dependent variable

The dependent variable for the study was Exclusive breastfeeding.

3.5.2 Independent variables

The independent variables were age, marital status, education level, socio cultural factors, knowledge about exclusive breastfeeding and practices, attitudes about exclusive breastfeeding, infant feeding practices.

3.6 Sample size

The sample size required for the study was 403 mothers with their infants 6 months and below. The sample size was calculated using the Cochran formula

University of Ghana http://ugspace.ug.edu.gh

$$n = \frac{(z^2 * pq)}{d^2}$$

Where (p) is the prevalence rate of exclusive breastfeeding 52% (GDHS, 2014), z is the standard normal deviate of 1.96 which corresponds to 95% confidence Level, q was 1-p and d is an absolute precision (margin of error) which is 0.05, Thus n, the sample size was calculated as follows:

$$n = \frac{(z^2 * pq)}{d^2}$$

$$n = \frac{((1.96)^2 * (0.52) * (1 - 0.52))}{0.05^2}$$

Therefore, $n = 383$

A non-response of 5% was added to the sample to get the final sample size. Thus n = 383+20 (5% of sample size for non-response)

n = 403

3.7 Data collection instruments

3.7.1 Questionnaire

Pilot testing of questionnaires was carried out in Teese, a community in the Bawku West District. A total of sixteen (16) mothers with similar characteristics to those selected for the main study were randomly selected to participate in the pilot test. Questionnaires were administered to ten (10) participants. This helped to examine the reliability of the questionnaire as well as show the validity and appropriateness of the tool. During the pilot testing, all participants were asked questions in the 'Kusal' language. It was realized at the end that some participants in the community could speak other languages like 'Twi' which was initiated during the actual data collection day. A brief meeting was held with the field assistants and the

University of Ghana http://ugspace.ug.edu.gh

questionnaires were modified based on lessons drawn from the exercise. In addition, the pilot testing helped in preparing the field assistants towards the actual day.

The structured questionnaire constituting a total of twenty-one (21) questions with four (4) different subsections was used to obtain information from respondents. The first section (section A), focused on maternal demographic characteristics (age, education, marital status, and education level), socio-economic characteristics (occupation). The second section (section B) addressed issues on breastfeeding practices comprising six (6) questions. Example of which included 'how long do you plan to exclusively breastfeed your baby'? The third section (section C), also looked at breastfeeding social practices with five (5) questions under this section which also included, 'when you got home after delivery, what did other lactating mother's breastfeed their babies with'. The last and final section (section D), addressed the knowledge on breastfeeding with seven questions. Two of which were Agree/Disagree questions like 'breast milk is mostly digestible than formula feed' Agree or Disagree? And a range of scores between 2 and 8. The rest of the five were Yes/ No questions such as 'do you know what exclusive breastfeeding is or is about' with a range of scores between 4 and 7. Knowledge was measured with a two (2) scale, High (a score from 4 – 7) and Low level of knowledge (a score between 0 – 3). Variables considered were; "Breast milk is most usually digestible than formula feed", "Breast feeding help mothers to lose weight", "Do you know that Breast milk contains all the essential nutrients and water for the first six months after birth", "Do you know what exclusive breastfeeding is or is about?", "Do you know that Colostrum (the yellowish fluid) contains essential antibodies necessary to help the child's immune system?", "Have you used any breastfeeding package before? e.g, booklet" and "Have you used medicine for breastfeeding mothers before?" where correct answers were scored one (1) and wrong answers (0).

University of Ghana http://ugspace.ug.edu.gh

3.7.2 Focus group discussion guide

According to Hancock et al. (2009), a focus group discussion can constitute between 6 to 10 members thus two focus group discussions (FGDs) constituting six (6) mothers in the first group and six mothers in the second group was conducted using a focus group discussion guide among breastfeeding mothers to obtain information on cultural norms and practices that also influenced exclusive breastfeeding in the community. This information was intended to provide an in-depth understanding of infant feeding practices and also offer an understanding or explanation of quantitative findings.

3.8 Sampling technique

The Bawku West District has only one hospital which was purposively selected because it was the only hospital in the whole district. A simple random sampling method was employed to select from the clinics and the health centers thus one health center was chosen among the four (4) health centers and one was also chosen from the nine (9) clinics. Names of the health centers and the public clinics were written on pieces of papers and put in a separate container thus names of clinics in one and names of health centers in another. One health center (popular known as town clinic) and clinic (faith clinic) were randomly picked from the containers. Data were collected from mothers with infants' age six months and less who were attended antenatal care on Fridays in the Zebilla district hospital and the two health facilities (faith clinic and town clinic) on Tuesdays and Thursdays respectively. All mothers with infants' age six months and below who consented to participate in the study were interviewed.

Respondents were purposively selected from two communities where two of the health facilities were located thus the faith clinic and the town clinic for the focus group discussions (FDG).

University of Ghana http://ugspace.ug.edu.gh

3.9 Data collection techniques

Data collection for the study was done between 6th June and 20th June 2017 after obtaining ethical approval from the Ghana Health Service Ethical Review Board on the 3rd of June, 2017. All the mothers who participated especially in the focus group discussion were visited in their homes by one of the research assistants. That was the period he sought their consent and their thumbprint also put on the consent form. On the other hand, respondents consent were sought at the time the questionnaires were being administered.to the respondents.

3.9.1 Quantitative data

Quantitative data was collected by administering a questionnaire only once to mothers who visited the hospital and health facilities for antenatal care. The research assistants asked the questions in the "Kusal'' language and then as mothers responded, research assistant ticked the responses that were applicable against each question answered. The principal investigator only administered questionnaire to those who understood the English language and "Twi" language and their responses were also ticked against each question accordingly. The interviews lasted between 5 to 10 minutes. Questions and response options were translated from English to the "kusal" and "twi" languages and then later translated back to the English language after respondents have given their appropriate responses. This was to make sure there was no loss of contextual meaning during translation.

3.9.2 Qualitative data

Qualitative data was collected using focus group discussions. Data from FDG's was necessary to provide information on cultural norms and beliefs on exclusive breastfeeding and also give explanations on quantitative data. Two community based focus group discussions were held at the end of the study (Ba'kulkua and Teeyoko communities where the two health facilities are located). Six breastfeeding mothers took part in the Ba'kulkua community focus group discussion and about six breastfeeding mothers took part in the Teeyoko community group

University of Ghana http://ugspace.ug.edu.gh

discussion. The Ba'kulkua focus group discussion participants were much younger as compared to the Teeyoko focus group discussion who were a group of much older mothers. Members of the focus group discussions were recruited with the help of two of the research assistants whose fathers were elders and opinion leaders in the community. The discussions lasted between 30 to 45 minutes. It was held at a convenient venue for all the participants free from noise and their babies. One of the research assistants facilitated all the FGD due to his ability to communicate fluently in the local language, the principal investigator assisted by recording using a phone which was put on flight mode to avoid interruptions and field note was taken by one other research assistant.

1. First of all the facilitator (research assistant) introduced the principal investigator, himself and the other filed assistant to the participants and they also introduced themselves one after the other.
2. The next thing was to explain the reason for the discussion to them and asked them to participate.
3. They were assured of confidentiality as their consents were sought in order to allow the principal investigator record their responses.
4. Participants' co-operated well throughout the discussion as they raised their hands and attempted to answer each question on the discussion guide.
5. They were encouraged to participate fully especially the shy ones but in the end they were all given equal chance to speak.
6. The facilitator then showed appreciation on behalf of the principal investigator and commended them for their participation and assured them that the information given would be used strictly for academic purpose and the findings will be of benefit to the entire community.

University of Ghana http://ugspace.ug.edu.gh

7. The research team did an evaluation of each focus group discussion immediately after the discussions.

3.10 Data processing and analysis

3.10.1 Quantitative

Data coding and entry and cleaning were done after data collection and entered into SPSS software for cleaning. All the analysis of quantitative data was done using the STATA version 14. Descriptive summary statistics such as frequencies and percentages, means, standard deviation were used to describe maternal demographic characteristics, socio-economic characteristics, exclusive breastfeeding rate, infant feeding practices, and maternal knowledge on exclusive breastfeeding and to see the distribution of variables in the data set. Chi square analysis was used to measure the relationship or establish significant association between the dependent (EBF) and selected independent variables (maternal socio-demographic characteristics, maternal knowledge on exclusive breastfeeding, infant feeding practices, social factors influencing exclusive breastfeeding). Variables which were statistically significant were selected into a multivariate logistic regression model to examine the factors that influence exclusive breastfeeding. ANOVA was used to test for significant differences in the mean knowledge scores for mothers in different age categories, education level and occupation. A p value of <0.05 was used as the criterion for statistical significance.

3.10.2 Qualitative

This analysis was guided by the thematic framework analysis described by Braun and Clark (2006). The discussion was analyzed thematically which gave the researcher the flexibility of creating important patterns. Views gotten from respondents were analyzed thematically due to the fact that discussion guide was carefully developed based on the issues to be addressed. Familiarization is the first step in thematic analysis where data was read several times to make better meaning out of the responses (Braun and Clark, 2006). This was successful by reading

University of Ghana http://ugspace.ug.edu.gh

through the field notes and making comparison, carefully listening to the audio and transcribing into English in Microsoft word. The second step which is the coding which is done after familiarization of data. This was achieved by identifying key words that best explains each response from the discussion. The codes according to Saldana (2009), layout pertinent statements in the language-based. The next step is generating of themes where themes were generated out of similar codes. Themes were then refined to make sure that there was a clear contrast between them and also data within each theme stick together meaningfully and also to make sure they reflect the implications obtained from responses of participants (Braun and Clark, 2006).

Finally themes were defined and named accordingly to ensure the themes reflected the objectives to be investigated. Interpretations and in-depth reports written on categorized data to give meaning to data gathered. Inferences were made from each theme that best described each categories, conclusion were drawn and then triangulated with the data from the questionnaire to assess cultural norms that influence exclusive breastfeeding.

3.11 Data quality control

Four (4) Data Collection Assistants with senior high school level of education were carefully selected from the community and trained on how to effectively administer questionnaires, conduct a Focus Group Discussion and also how to handle ethical issues during fieldwork. Principal researcher carefully trained field assistants on the basics of data collection, how to read out questionnaire and how to tick against the appropriate answers. They were also trained on how to ensure confidentiality, anonymity and then seeking for respondent's consent before data collection.

University of Ghana http://ugspace.ug.edu.gh

3.12 Ethical Consideration

Study proposal was submitted to the Ghana Health Service's (GHS) Ethical Review committee for review and clearance before commencement of data collection. **GHS-ERC: 77/02/17**

Approval was also sought from the Zebilla district hospital administrator and DDNS because the district health director had travelled for a meeting in Accra at that period. Approval was also granted in the health facilities by their in charge (a medical doctor and the administrator at the faith clinic and community health nurse at the health center).

3.12.2 Consenting

The Principal Investigator and Data Collection Assistants read and explained information on the consent form to the participants. This was done individually prior to the interview. The nature, purpose, risk and benefits of the study were explained to each respondent. Participants who agreed to the terms and conditions in the consent were asked to sign and those who could not read and write had to thumbprint before they were interviewed. Same procedure was done to the participants of the Focus Group Discussion.

3.12.3 Privacy and Confidentiality

Confidentiality was assured before carrying out the research. They were informed that the information they gave would only be used for the purpose of the research and that findings will be communicated to them. All response were treated as confidential as no names were placed on the questionnaires.

3.12.4 Data Storage/Security

Data collected from field were stored in a backpack under care where only the PI had asses to. Soft copies of information especially the recordings of the focus group discussion was password protected.

University of Ghana http://ugspace.ug.edu.gh

3.12.5 Data Usage

Data collected was used purposely for academic work.

3.12.6 Voluntarily Withdrawal

Participants in the study had the right to withdraw at any time without any consequences. Should they had withdrawn, the information they had provided would not have been used in the study but fortunately, none withdrew during the research. Respondents were given the chance to ask questions during the study for clarification. Any aspect of the questions that were not well understood were clarified by the interviewer.

3.12.7 Compensation/Payments

No payment was made for the time of the respondent.

3.12.8 Conflict of Interest

There was no issues of conflict of interest.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results of data analysis of the variables and their interpretations. Results are presented in the following order; Socio-demographic characteristics, Social factors influencing exclusive breastfeeding practices, Cultural beliefs influencing exclusive breastfeeding and then the knowledge on exclusive breastfeeding.

4.1 Socio-Demographic Characteristics of participants

The results showed that the mean age of the respondents was 28years, with a minimum age of 17 and maximum age of 46 years. Most of the respondents were within 27-36 (53.1%) age range. On marital status, (93.5%) of them were married with (1.0%) were widowed. On their educational background (52.6%) of the respondents were with no formal education, primary (24.8%), Junior High School (10.7%), Secondary/Vocational Training (5.2%) and Tertiary (6.7%). On most usual occupational source, (37.5%) of the respondents indicated Semi-skilled (farmer/trader/food vendor). See Table 4.1 for detail results.

Table 4.1: Socio-Demographic Characteristics of participants

Variables		Frequency (N=403)	Percent
How old are you?	17 – 26	170	42.2%
	27 – 36	214	53.1%
	37 – 46	19	4.7%
What is your marital status?	Single/never married	10	2.5%
	Married	377	93.5%
	Separated/divorced	12	3.0%
	Widowed	4	1.0%
	Co-habitation	0	0.0%
What is your highest level of education?	No formal education	212	52.6%
	Primary	100	24.8%
	Junior High School	43	10.7%
	Secondary/vocational training	21	5.2%
	Tertiary	27	6.7%
What is your most usual occupational source?	Unemployed	119	29.5%
	Student	7	1.7%
	Semi-skilled(farmer/trader/food vendor)	151	37.5%
	Skilled (seamstress, hair dresser)	100	24.8%
	Professional(Nurses, teachers, administrators)	18	4.5%
	Other government employees(Clerks, receptionist and messengers)	8	2.0%

University of Ghana http://ugspace.ug.edu.gh

4.2 Social factors influencing exclusive breastfeeding practices

The study reveals that more than half (59.1%) of the respondents did not breastfeed their last baby prior to the delivery of their new baby. Majority (77.7%) planned to breastfeed their new baby whiles 78.2% of the respondents stated they will feed their new babies with breast milk, cereals and porridge (18.1%) and Traditional medicines (2.2%). Majority indicated that they plan to breastfeed their new babies for 6 months (62.5%) long. 252 out of the 403 respondents indicated that they don't have any problems with latching as far as the baby and their health welfare is concerned. When asked what would determine their planned feeding length, majority indicated that if baby is healthy and strong (46.4%). See detail results in Table 4.2.

Table 4.2: Breastfeeding practices

Variables		Frequency (N=403)	Percent
Did you breast feed your last baby prior to the delivery of this new one?	Yes	140	34.7%
	No	238	59.1%
	Don't know	2	0.5%
	Not Applicable	23	5.7%
Do you plan to breast feed this new one?	Yes	313	77.7%
	No	84	20.8%
	Don't know	6	1.5%
What would you be feeding the new baby with?	Breast milk	315	78.2%
	Animal milk	1	0.2%
	Water	2	0.5%
	Traditional medicines	9	2.2%
	Cereals and porridge	73	18.1%
	Don't know	3	0.7%
How long do you plan to breast feed your new baby?	Not at all	86	21.3%
	First month	6	1.5%
	3 months	59	14.6%
	6 months	252	62.5%
Did you and baby have problems with lactating	Not at all	252	62.5%
	First hour	32	7.9%
	First day	52	12.9%
	Between day 2 - 3	35	8.7%
	Day 3 and above	32	7.9%
What would determine your planned feeding length?	If baby is healthy and strong	187	46.4%
	If baby is sick and weak	63	15.6%
	If a health professional advices so	76	18.9%
	Nothing	77	19.1%

University of Ghana http://ugspace.ug.edu.gh

From the findings above, breastfeeding practices among mothers were measured with a two scale High (Good) and Low (Poor) level breastfeeding practices among the respondents, 78% of the respondent scored low level thus poor breastfeeding practices while 22% do practice good breastfeeding practices. See Figure 4.1

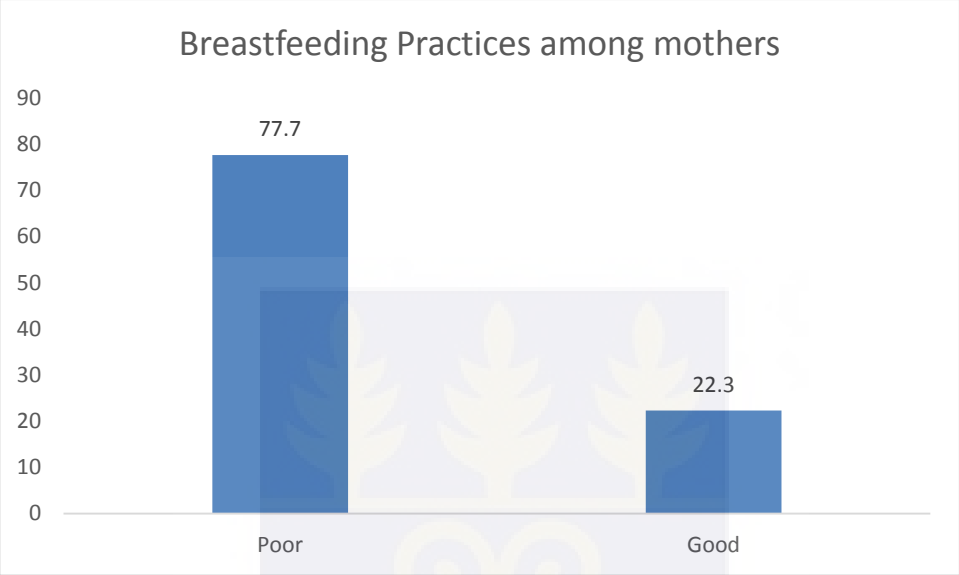


Figure 4.1: Breastfeeding practices among women

4.3 Breastfeeding Social Practices

The study revealed that most of respondents (99.5%) received help in breastfeeding after delivery while in the hospital and Pediatrician or obstetrician (46.6%) formed the majority of health workers that helped them, from family or friend (38.2%), Lactation Consultant (7.7%), Midwife (4.7%) and lastly a Nurse (2.7%).

Also, when asked "When you got home after delivery, how did other lactating mothers (friends and family) breastfed their babies?" majority 61.3% said "Was through breast milk".

Again, when asked "Once you were home, did you get any help with breast feeding?", majority (99.3%) said they were helped at home. Lactation consultant at home (64.4%)

University of Ghana http://ugspace.ug.edu.gh

were the most assistants at home as far as breastfeeding was concern. More than half of the respondents (70.5%) said they get advice on session on what to feed their babies. Most the advices were from Friends and Family (41.9%) followed by Community health nurses (33.3%), Health Consultants (20.6%), Lactation Consultants (2.2%), Media (1.2%) and lastly Local communal advice (0.2%). See Table 4.3 for detail results.

Table 4.3: Breastfeeding social practices

Variables		Frequency (N=403)	Percent
Did you have any help in breastfeeding after delivery while in the hospital?	Yes	401	99.5%
	No	2	0.5%
	Total	403	100.0%
Who helped at Hospital	Lactation Consultant	31	7.7%
	A Nurse	11	2.7%
	Someone in my family or friend	153	38.2%
	Midwife	19	4.7%
	Pediatrician or obstetrician	187	46.6%
	Total	401	100.0%
When you got home after delivery, how did other lactating mothers breastfeed the	Was through breast milk	247	61.3%
	Was through tinned milk	9	2.2%
	Was through animal milk	6	1.5%
	Others eg. cereals and porridge	139	34.5%
	Don't know	2	0.5%
	Total	403	100.0%
Once you were home, did you get any help with breast feeding?	Yes	400	99.3%
	No	3	0.7%
	Total	403	100.0%
Who helped you?	Family and friends	70	17.5%
	Lactation consultant at home	259	64.8%
	Lactation consultant from the hospital	14	3.5%
	Community health nurse at the CHIPS compound	56	14.0%
	Health care practitioner from the district hospital	1	0.3%
	Total	400	100.0%
Do you get advice on session on what to feed your baby?	Yes	284	70.5%
	No	119	29.5%
	Total	403	100.0%

Who do you get advice from on breastfeeding?	Lactation consultant	9	2.2%
	Health consultant	83	20.6%
	Community health nurses	134	33.3%
	Friends and family	169	41.9%
	Media	5	1.2%
	Local communal advice	1	0.2%
	Don't know	2	0.5%
	Total	403	100.0%

INTEGRI PROCEDAMUS

University of Ghana http://ugspace.ug.edu.gh

4.4 Cultural beliefs that influence the decision to breastfeed

The results showed that women were been given much education on breastfeeding and its importance on both the child and mother but were still influenced by some cultural practices which says that giving water to the child is a sign of ushering that child into the family. For example one participant said:

> "*our grandmothers and mothers used to give their babies water apart from breast milk but now the people at the hospital are saying we should only give our baby's breast milk for six month. Even though we sometimes give them water, we do not give them most of the time like our mothers and grandmothers use to."* ***(Atalata)***

Women practice exclusive breastfeeding to some level and then introduce complementary feeding as well. From the study, women see the benefits of exclusive breastfeeding not being different from what their culture says about giving porridges and other foods because they think those who practice exclusive breastfeeding also have their babies falling sick just like they who do not exclusively breastfeed and they believe also that giving other foods like porridge to the child makes the child intelligent and grow stronger. One participant had this to say:

> "*Our culture believes that giving these foods will make the baby strong, gain weight and also makes the child intelligent. Our culture also sees this as a sign of welcoming the baby to the family because they believe the baby has come from a very far distance and just as we welcome visitors with water, so shall we welcome the new born baby into the family and as part of the family. If this is not done and the baby dies it means the baby was not welcomed that is why he did not stay*." ***(Atinii)***

Women also had many cultural and personal reasons such as it paves way for the "proper milk" to flow, it is as a result of the washing of the breast after nine months of pregnancy. These were some of the reasons discouraging them from giving colostrum to their babies which they tend to believe more than what they have been taught at the hospitals. This is what a participant said:

University of Ghana http://ugspace.ug.edu.gh

> *Laughs so hard…. "In the beginning the breast milk doesn't come well so we do not pay attention to the first milk especially for the way it looks. Mine was slimy and I was told not to feed my baby with it as soon as I got home. I was told the better one will come in a few days' time but this one is washing inside of the breast.*" ***(Alamisi)***

Another woman also had this to say about the cultural reasons why colostrum is discarded.

> *ooi! As she exclaims… "That breast milk is not always yellow ooo, mine was even brown. It does not even look pleasant for the baby's consumption. I cannot feed my baby with it. Here it is believed that that milk paves way for the proper one to come so we don't give it to the babies. ah!ah! She exclaims again.* ***(Alardi)***

4.5 Knowledge on exclusive breastfeeding practice

For the purpose of the study, knowledge was measured with a two (2) scale, High (a score from 4 – 7) and Low level of knowledge (a score between 0 – 3). Variables considered were; "Breast milk is most usually digestible than formula feed", "Breast feeding help mothers to lose weight", "Do you know that Breast milk contains all the essential nutrients and water for the first six months after birth", "Do you know what exclusive breastfeeding is or is about?", "Do you know that Colostrum (the yellowish fluid) contains essential antibodies necessary to help the child's immune system?", "Have you used any breastfeeding package before? e.g, booklet" and "Have you used medicine for breastfeeding mothers before?" where correct answers were scored one (1) and wrong answers (0). See Table 4.4 for detail results.

Table 4.4: Knowledge on Breastfeeding

Variables		Frequency (N=403)	Percent
Breast milk is most usually digestible than formula feed	Strongly agree	147	36.5%
	Agree	145	36.0%
	Disagree	108	26.8%
	Strongly disagree	2	0.5%
	Don't know	1	0.2%
Breast feeding help mothers to lose weight	Strongly agree	46	11.4%
	Agree	114	28.3%
	Disagree	181	44.9%
	Strongly disagree	50	12.4%
	Don't know	12	3.0%
Do you know breast milk contains all the essential nutrients and water for the for the first six months after birth	Yes	311	77.2%
	No	92	22.8%
Do you know what exclusive breastfeeding is or is about?	Yes	202	50.1%
	No	201	49.9%
Do you know colostrum contains essential antibodies necessary to help the child'	Yes	161	40.0%
	No	242	60.0%
Have you read any the breastfeeding package before?	Yes	128	31.8%
	No	275	68.2%
Have you used medicine for breastfeeding women before?			
	Yes	158	39.2%
	No	245	60.8%

University of Ghana http://ugspace.ug.edu.gh

4.6 Level of Knowledge on exclusive breastfeeding practice among respondents

On the issues of knowledge on exclusive breastfeeding practices among respondents, more than half of the respondent (64.8%) expressed a higher knowledge on breastfeeding practices. See Figure 4.2 for detailed results.

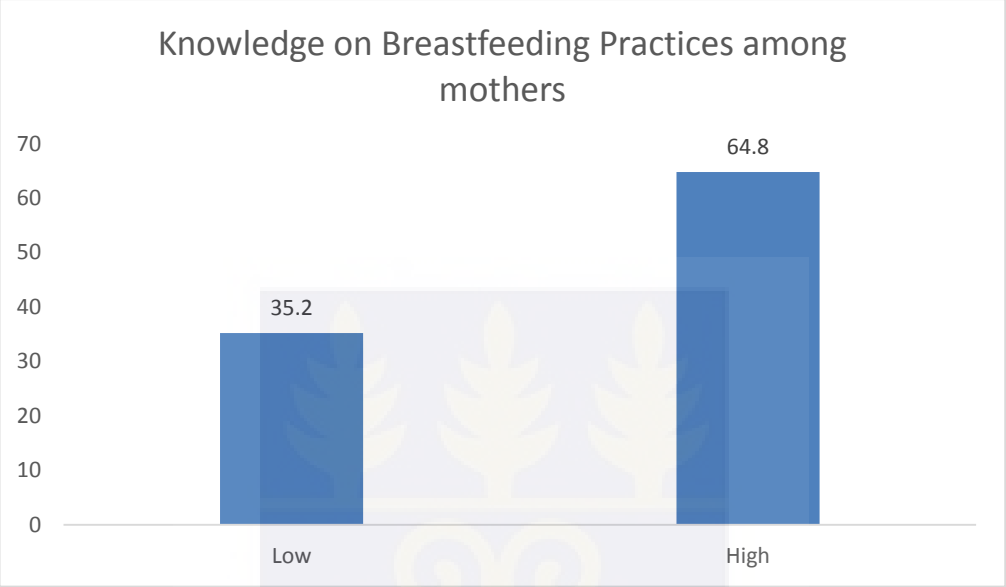


Figure 4. 2: Knowledge on Breastfeeding practices among mothers

4.7 Factors associated with Knowledge on exclusive breastfeeding practice among respondents

Fifty three percent, of the respondents between the ages of 17-26 years had low knowledge on exclusive breastfeeding. On the other hand, (58.0%) of the respondents of age's 27-36years had higher level knowledge. Age showed an association with level of knowledge with a p-value of 0.006. Marital status has no association with level of knowledge (p-value=0.065). Highest level of education showed an association with level of knowledge (p-value=0.001). Majority of respondents with No formal education had low level (74%) of knowledge and Secondary/vocational training (95.2%) with high level of knowledge. Most usual occupational source had an association on level of knowledge (p-value=0.001). Majority (62.0%) of respondent

University of Ghana http://ugspace.ug.edu.gh

"unemployed" had Low level of knowledge while Students (100%), "Other government employees" (100%) had high level of knowledge. The study also revealed that Breastfeeding practices among mothers had an association with level of knowledge (p=0.001). See Table 4.5 for detailed results.

Table 4.5: Knowledge on Exclusive breastfeeding practices among mothers

Variables		Knowledge on Breastfeeding Practices among mothers				
		Low	**High**			
		Frequency (%) (N=403)	Frequency (%) (N=403)	Chi-sq	df	Sig.
How old are you?	17 – 26	75 (44)	95 (55)	10.219	2	0.006
	27 – 36	62 (29)	152 (71)			
	37 – 46	5 (26)	14 (73)			
What is your marital status?	Single/never married	1 (10)	9 (90)	7.221	3	0.065
	Married	139 (36)	238 (63)			
	Separated/divorced	2 (16)	10 (83)			
	Widowed	0 (0)	4 (100)			
	Co-habitation	0 (0)	0 (0)			
What is your highest level of education?	No formal education	105 (49)	107 (50)	50.658	4	0.001
	Primary	30 (30)	70 (70)			
	Junior High School	3 (7)	40 (93)			
	Secondary/vocational training	1 (4)	20 (95)			
	Tertiary	3 (11)	24 (88)			
What is your most usual occupational source?	Unemployed	74 (62)	45 (37)	58.669	5	0.001
	Student	0 (0)	7 (100)			
	Semi-skilled (farmer/trader/food vendor)	37 (24)	114 (75)			
	Skilled (seamstress, hair dresser)	28 (28)	72 (72)			
	Professional (Nurses, teachers, administrators)	3 (16)	15 (83)			
	Other government employees (Clerks and messengers)	0 (0)	8 (100)			
Breastfeeding Practices among mothers	Poor	131 (41)	182 (58)	26.894	1	0.001
	Good	11 (12)	79 (87)			

University of Ghana http://ugspace.ug.edu.gh

4.8 Socio-demographic characteristics influence on level of knowledge on Breastfeeding Practices

The study findings reveal that the odds of high level knowledge on breastfeeding practices for older women (37 – 46) age range is 2 times that of younger women with age range 17 – 26 years (p-value=0.144, CI=0.87 – 10.88). Respondents with Secondary/vocational training as highest level of education were 19.62 times likely to have a high level of knowledge on breastfeeding practices compared with respondents with no formal education (p-value=0.017, CI= 1.62 – 138.83). Again, the odds of a high level of knowledge on breastfeeding practices of respondents with a Professional (Nurses, teachers, administrators) occupation is 8.22 times that of an unemployed respondent (p-value=0.962, CI= 0.02 – 25.24). See Table 4.6 for detail results.

Table 4.6: Socio-demographic characteristics influence on knowledge level in breastfeeding practices

Socio-Demographic Characteristics	Crude estimates			Adjusted estimates		
Variable	**COR**	**CI**	***P***	**AOR**	**CI**	***p***
Age						
17 – 26	1			1		
27 – 36	1.93	1.26 – 2.95	0.002	2.42	1.43 – 4.09	0.001
37 – 46	2.21	0.76 – 6.41	0.144	3.07	0.87 – 10.88	0.082
Marital Status						
Single/never married	1			1		
Married	0.19	0.02 – 1.52	0.117	0.14	0.01 – 1.49	0.104
Separated/divorced	0.56	0.04 – 7.21	0.653	0.25	0.01 – 4.44	0.346
Widowed	1					
Co-habitation						
Highest level of education						
No formal education	1			1		
Primary	2.29	1.38 – 3.79	0.001	2.188	1.22 – 3.93	0.009
Junior High School	13.08	3.93 – 43.60	0.001	21.04	5.81 – 76.08	0.001
Secondary/vocational training	19.62	2.58 – 148.89	0.004	15.03	1.62 – 138.83	0.017
Tertiary	7.85	2.29 – 26.86	0.001	15.08	0.58 – 391.68	0.102
Most usual occupational source						
Unemployed	1			1		
Student	-			-		
Semi-skilled (farmer/trader/food vendor)	5.07	3.0 – 8.56	0.001	5.06	2.82 – 9.06	0.001
Skilled (seamstress, hair dresser)	4.23	2.39 – 7.50	0.001	3.83	1.97 – 7.43	0.001
Professional (Nurses, teachers, administrators)	8.22	2.25 – 29.98	0.001	0.92	0.02 – 25.24	0.962
Other government employees (Clerks, receptionist and messengers)	1			1		

University of Ghana http://ugspace.ug.edu.gh

4.9 Socio-demographic factors influencing exclusive breastfeeding practices among women

The study further explores the socio-demographic factors influencing exclusive breastfeeding practices among women in the Bawku West District. It was revealed that, the odds of a good breastfeeding practices among respondents who were students is 10.40 times that of an unemployed respondent (p-value=0.011, CI= 1.81 – 90.15). Also, the odds of a good breastfeeding practices of respondents with primary highest level of education is 2.38 times that of a respondent with no formal education (p-value=0.061, CI= 0.061) and higher than respondents with higher level of education completed. See Table 4.7 for detail results.

Table 4.7: socio-demographic characteristics influencing exclusive breastfeeding practices among women

Socio-Demographic Characteristics	Crude estimates			Adjusted estimates		
Variable	**COR**	**CI**	***P***	**AOR**	**CI**	***P***
Age						
17 – 26	1			1		
27 – 36	1.24	0.76-2.01	0.389	1.47	0.84–2.57	0.171
37 – 46	0.72	0.20-2.62	0.622	1.20	0.30–4.83	0.790
Marital Status						
Single/never married	1			1		
Married	0.44	0.12 – 1.58	0.207	0.35	0.08–1.60	0.178
Separated/divorced	0.14	0.01 – 1.51	0.105	0.90	0.01–1.17	0.066
Widowed	-	-	-	-	-	
Co-habitation	-	-	-	-	-	
Highest level of education						
No formal education	1			1		
Primary	2.38	1.37 – 4.15	0.002	1.77	0.97–3.24	0.061
Junior High School	2.44	1.17 – 5.04	0.017	2.00	0.89–4.47	0.093
Secondary/vocational training	1.58	0.54 – 4.59	0.401	0.70	0.20–2.40	0.570
Tertiary	0.88	0.29–2.70	0.823	0.27	0.02–2.94	0.282
Most usual occupational source						
Unemployed	1			1		
Student	10.40	1.98 – 54.73	0.006	12.78	1.81-90.15	0.011
Semi-skilled (farmer/trader/food vendor)	4.50	2.00 – 10.10	0.001	4.14	1.81–9.50	0.001
Skilled (seamstress, hair dresser)	8.15	3.57 – 18.58	0.001	7.12	3.03–16.74	0.001
Professional (Nurses, teachers, administrators)	2.78	0.66 – 11.62	0.163	12.50	0.90– 173.39	0.060
Other government employees (Clerks, receptionist and messengers)	4.62	0.80 – 26.72	0.087	16.83	1.49 – 190.16	0.022

University of Ghana http://ugspace.ug.edu.gh

4.10 Social factors influencing exclusive breastfeeding practices among women

The study again further investigated the socio-cultural factors that influence exclusive breastfeeding practices among mothers in the Bawku West District. The findings showed that, respondents who received help from a nurse at the hospital were 1.04 times likely to practice good breastfeeding practices compared to those who received help from lactation consultants (p-value=0.320, CI= 0.082 – 2.266). For those who received help at home, from a Community health nurse at the CHIPS compound were 1.32 times likely to practice good breastfeeding practices compared with those who received help from family and friends (p-value=1, CI= 0.44 – 2.29). Finally, respondents with a high level of knowledge of a respondent on breastfeeding practices were 5.17 times likely to engage in good breastfeeding practices compared with those with low level of knowledge (p-value=0.342, CI=2.64 – 10.10). See Table 4.8 for more detail results.

Table 4.8: Social factors influencing exclusive breastfeeding practices

Breast feeding social practices	**Crude estimates**			**Adjusted estimates**		
Variable	**COR**	**CI**	***p***	**AOR**	**CI**	***p***
Breastfeeding help at the hospital after delivery						
Lactation consultant	1			1		
A nurse	1.04	0.25 – 4.35	0.958	0.43	0.082 – 2.266	0.320
Someone in my family or friend	0.67	0.29 – 1.51	0.329	0.26	0.091– 0.714	0.009
Midwife	0.10	0.12 – 0.86	0.036	0.11	0.011 – 1.159	0.066
Pediatrician or obstetrician	0.36	0.16 – 0.83	0.016	0.27	0.097 – 0.767	0.014
How friends and neighbours fed their babies						
Was through breast milk	1			1		
Was through tinned milk	-			-		
Was through animal milk	1.17	0.21 – 6.52	0.859	0.25	0.032 – 1.981	0.190
Others eg. Cereals and porridge	0.22	0.12 – 0.42	0.001	0.74	0.301 – 1.82	0.517
Help at home after delivery						
Family and friends	1			1		
Lactation consultant at home	0.33	0.18 – 0.61	0.001	0.53	0.26 – 1.09	0.084
Lactation consultant from the hospital	1.14	0.34 – 3.78	0.836	1.17	0.32 – 4.28	0.811
Community health nurse at the chips compound	1.32	0.64 – 2.75	0.455	1	0.44 – 2.29	1.00
Health care practitioner from the district hospital	1	-	-	-	-	-

Do you get advice on sessions on what to feed your baby?						
Yes	1			1		
No	0.30	0.15 – 0.57	0.001	0.54	0.22 – 1.35	0.187
Who do you get advice from on breastfeeding?						
Lactation consultant	1			1		
Health consultant	0.91	0.21 – 3.93	0.902	0.61	0.12 – 3.27	0.567
Community health nurses	0.95	0.23 – 3.96	0.938	0.67	0.13 - 3.56	0.640
Friends and family	0.19	0.44 – 0.86	0.031	0.27	0.05 – 1.57	0.144
Media	0.5	0.37 – 6.68	0.600	0.48	0.26 – 8.91	0.621
Local communal advice	1	-	-	-	-	-
Don't know	2	0.90 – 44.35	0.661	1.39	0.51 – 37.74	0.846
Knowledge on breastfeeding						
Low	1			1		
High	5.17	2.64 – 10.10	0.001	1.52	0.64 – 3.62	0.342

University of Ghana http://ugspace.ug.edu.gh

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

In spite of the high exclusive breastfeeding rates in the hospital facility, others do not practice it when they go back to their homes. This study therefore was aimed at investigating socio-cultural factors that influence exclusive breastfeeding in the Bawku West district of Ghana. This chapter discusses the findings of the study as related to previous studies.

5.1 Socio-demographic characteristics

Out of the 403 mother's interviewed; older women had high knowledge in breastfeeding and were likely to practice exclusive breastfeeding than mothers in the younger age range. Results showed that older mothers, had higher knowledge in exclusive breastfeeding practices. Education level of women, exclusive breastfeeding appears to increase as education goes higher. Mothers with secondary and vocational training as highest level of education were more likely to have a high level of knowledge on breastfeeding practices compared with those who have no formal education at all who constitute the majority in the study. This findings is quite similar to that of Al Sahab et al. (2010) who found out that high education level of mothers has been associated with better exclusive breastfeeding practices. In addition respondents with professional jobs such as nursing, teaching and administrators are likely to have a higher knowledge on breastfeeding practices than those of whom are unemployed.

These are related to the explanation of the behavioural factors component of the social cognitive theory that good knowledge in breastfeeding will influence women to practice exclusive breastfeeding. This very high illiteracy rate implies a more severe

University of Ghana http://ugspace.ug.edu.gh

education campaigns to improve upon the breastfeeding rates in the Bawku West District. Therefore, there is the need to train young mothers to gain more expertise in breastfeeding through special programs to target them for breastfeeding counselling.

Marital status was also examined but there was no relationship between marital status and exclusive breastfeeding practices contrary to a study by Alemayehu et al. (2009) who found a relationship between marital status and exclusive breastfeeding in Ethiopia revealing that women who were not currently married were two times more likely to breastfeed their babies than those who were married.

5.2 Social factors influencing exclusive breastfeeding practices

The study revealed that most of the respondents received help from the hospital after delivery to breastfeed their babies and among these respondents, majority of the help came from health workers who were pediatricians or obstetricians as compared to the help they received from family and friends while at the hospital and nurses. Also the study revealed that respondents who received help from a nurse at the hospital were more likely to practice good breastfeeding practices compared to those who received help from lactation consultants on the other hand, those who received help from community health nurses were more likely to practice good breastfeeding practices as compared to those receiving help from family and friends. These could be linked to the environmental influence component in the social cognitive theory explaining how family and friends could influence behaviour change. Thus women may be influenced either positively by family and friends to breastfeed exclusively or negatively to exclusively breastfeed. These social influences on breastfeeding practices are such that when women are given the needed assistance from health workers, they are likely to practice good exclusive breastfeeding. However, women receiving help from friends and family are less likely to practice good breastfeeding. Mothers are being pressured

University of Ghana http://ugspace.ug.edu.gh

by their family and friends to introduce other foods such as porridge which results in a poor breastfeeding practice (Ochola, 2008).

5.3 Cultural reasons influencing women's decision to exclusively breastfeed

Findings from the focus group discussion indicated that mothers had more knowledge on breastfeeding and breastfeeding practices but were still restricted to practice due to some cultural norms and believes. This was confirmed by one of the mothers in the focus group discussion.

Women have been given advices on what to feed the baby and to what age but due to some cultural reasons they continue to give water and other supplementary food to their babies which is not different from (Awumbilla, 2003) reporting that giving the baby water within the first hour of delivery is a customary rite and very essential for the people in the Bawku area which is a sign of ushering the baby into the family. They also think whatever exclusive breastfeeding offers the child, in their culture also giving the child food and water gives the child the same benefits

From this study, mothers clearly do not know the importance of colostrum even though they have been educated at the hospital to practices exclusive breastfeeding. It is obvious that they do not practice it when they are home. Colostrum still looks disgusting to them and also they have been negatively influenced by their mothers and other elderly people in the community therefore they still believe it paves way for "better milk" to flow. This is related to the personal factors component of the social cognitive theory explaining that when women have a strong belief about a particular subject they automatically change their behaviour about it so regardless of their level

University of Ghana http://ugspace.ug.edu.gh

of knowledge about colostrum, their belief that it paves way for 'better milk' will still remain a reason for not using it to feed their babies.

This response is quite similar to that of Tawiah-Agyemang et al. (2005) and Adjei and Schubert (2003) who reported in their study that some cultures in Africa including Ghana still consider colostrum as being dirty and therefore discard it. Also, is it not so different from that of Awumbilla's study (2003) who reported that a quarter of mothers referred colostrum as being blood that has stayed for nine months in the breast and thus should be discarded and breastfeeding should be introduce only when the 'white milk' starts to flow. This is also a reason why most mothers introduce complementary feeding within the first six months.

5.4 Women's knowledge level in breastfeeding

This study revealed that breastfeeding practices among mothers had an association with level of knowledge. The findings also showed that a higher percentage thus more than half of the respondents had a higher knowledge on breastfeeding practices with a smaller percentage showing a low level of knowledge in exclusive breastfeeding. The knowledge of exclusive breastfeeding was high among the older women and lowest among the younger women. This could be as a result of more continues practice and experience from their previous practices as compared to the younger mothers who do not have much experience. This also explains the statement by Meyerink and Marquis (2002) that breastfeeding knowledge may not necessarily be learnt but through experience. Majority of the respondents who had no formal education had a lower knowledge level and those with as high as secondary/vocational training had a higher level of knowledge. Students and other government workers had a higher level of knowledge while those who were unemployed had a lower level of knowledge. This could imply that mothers who have little education were able to understand the

University of Ghana http://ugspace.ug.edu.gh

benefits of exclusive breastfeeding talks that were given at the hospitals and also are able to read their breastfeeding booklets as compared to their illiterate counterparts who do not have any access to other sources of breastfeeding information except what is commonly practiced in the community

5.5 Limitations of the study

It was observed that administering questionnaires at the hospital and clinics had an influence on the responses. They had this perception that the exercise was being done by the hospital in order to find out if they practices exclusive breastfeeding thus they felt it was mandatory to give responses that will suit the nurses. This was however noticed when an infant of less than 6 months old was being fed with maize porridge at a corner outside the hospital premises meanwhile the mother already responded differently to the questionnaire. Additionally, some mothers ended up contradicting themselves as they vehemently claimed they breastfed their babies with the colostrum but when being asked if they knew it helped build antibodies in the baby to fight against diseases they said the colostrum rather makes their baby sick. Also most of the mothers did not know their ages, they mostly guess or pick an age that the previous mother had given. Additionally focused group discussions were organized in two separate communities to compliment the responses from the questionnaire. Mothers could not recall some of the feeding practices their mothers and grandmothers used that is different from what they are practicing thus, the issue of recall bias. Finally it was difficult getting data on the district's current doctor/patient ratio and nurses/patient ratio however, since the regional report shows an average report of the various districts, it is assumed that the doctor/patient ratio and nurses/patient ratio reflects that of the Bawku West District's.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.0 Conclusion

High knowledge in breastfeeding will mean that a person will practice exclusive breastfeeding. Hence, there is a relationship between education and knowledge in breastfeeding thus women with high education level such as secondary and tertiary education were likely to practice exclusive breastfeeding compared to those mothers who had no formal education. Following the findings from the focus group discussion which also clearly reveals that various believes and norms such as ancestors will not be happy if a baby dies without being given food nor water and also that colostrum paves way for better milk to flow and thus should not to fed to the baby are restricting mothers from practicing exclusive breastfeeding in spite of all the help they get from the hospital during and after delivery, they discontinue the breastfeeding and then introduce the babies to other foods with the intention of making the baby gain weight. Also from the findings, women who received help from nurses and pediatricians after delivery were likely to breastfeed their babies exclusively as compared to those who received help from family and friends. This explains why some social factors could influence exclusive breastfeeding practices.

Factors that influenced exclusive breastfeeding in the study community included; women knowledge level, maternal age, receiving help from health worker at the hospital during delivery as well as community health nurses. It can be said that mothers who were older and experienced had more knowledge on breastfeeding and were more likely to practice exclusive breastfeeding than the young mothers.

University of Ghana http://ugspace.ug.edu.gh

6.1 Recommendations for policy

The ministry of health should review baby friendly hospital initiatives (BFHI) in health facilities to strengthen the effectiveness of the implementation.

The Ghana health service should place emphasis on addressing the essence of prompt health seeking behavior because mothers need to know and understand what exclusive breastfeeding means and the health benefits associated with it that could help reduce maternal and child.

6.1.1 Recommendation for practice

Community health nurses and nutritionists should educate women against negative attitudes towards breastfeeding their babies during counselling sessions.

Community leaders should come together to support health workers in promoting exclusive breastfeeding practices in the community so women will practice it effectively.

Traditional leaders should also promote exclusive breastfeeding by encouraging women to desist from feeding the baby with other supplementary foods during the first six months.

Various NGO'S should make it their target to focus on grandmothers, mothers and mother in-laws as they are the key role players in influencing exclusive breastfeeding and also promote girl child education to enlighten women more on exclusive breastfeeding.

Stimulate the information of baby friendly initiative in the community such as mother and father supporting groups to uplift the community based strategies for exclusive breastfeeding promotion. This is to ensure that community health workers are able to

University of Ghana http://ugspace.ug.edu.gh

reach out a lot of mothers and to make them aware of the exclusive breastfeeding benefits.

6.1.2 Recommendation for future research

More studies should be done in different resource poor settings across Ghana to help identify the diverse cultural norms that influence exclusive breastfeeding for proper addressing.

University of Ghana http://ugspace.ug.edu.gh

REFERENCES

Aborigo R, Moyer CA, Rominski S, Adongo P, Williams J, Logonia G, Affah G, Hodgson A, Engmann C (2012). Infant nutrition in the first seven days of life in rural northern Ghana. *BMC Pregnancy and childbirth*, 12 (76).

Adjei, E and Schubert J (2003). Final Report: Follow-up Survey III: A rapid appraisal of breastfeeding and complementary feeding knowledge and practices in Ghana. GHS/LINKAGES and Partners in Ghana.

Aidam BA, Perez-Escamilla R, Lartey A, Aidam J (2005). Factors associated with exclusive breastfeeding in Accra, Ghana. *Euro J Clil Nutr. 59; 789-796.*

Aidam BA, R Perez-Escamilla R, Lartey A, Aidam J (2005). Lactating Counseling Increases Exclusive Breastfeeding rates in Ghana. *The Journal of Nutrition J.Nutr.*135:1691-1695.

Al-Sahab, B., Lanes, A., Feldman, M and Tamim, H. (2010). Prevalence and predictors of 6-months exclusive breastfeeding among Canadian women: a national survey. *BMC Pediatrics*, 10:20.doi: 10.1186/1471-2431-10-20

Alemayehu, T., Haidar J. and Habte D. (2009). Determinants of exclusive breastfeeding practices in Ethiopia. *Ethiopia.J.Health* Dev. 23(1):12-18

Arifeen S, Black RE, Antelman G, Baqui A, Caulfield L, Becker S (2001). Exclusive breastfeeding reduces acute respiratory infection and diarrhea deaths among infants in Dhaka slums. *Pediatrics*. 108(4):E67.

Arora, S., McJunkin, C., Wehrer, J., & Kuhn, P. (2000). Major factors influencing breastfeeding rates: Mother's perception of father's attitudes and milk supply. *Pediatrics, 106*, 5.

Awumbila, M., 2003. Social dynamics and infant feeding practices in Northern Ghana. *Research Review NS*, 19(2), 85-98.

Bahl, R, Frost, C., Kirkwood, B.R, Edmond, K, Martines, J., Bhandari, N. and Arthur, P (2005). Infant feeding pattern and risks of death and hospitalization in the first half of infancy: multi-Centre Cohort study. www.popline.org/docs/1614/287039 ht.ml

University of Ghana http://ugspace.ug.edu.gh

Baker, E. J., Sanei, L. C. & Nadra F. (2006). Special issues on reproductive and Newborn Health. *Journal of Health, population and Nutrition*, *24*(4), 530-539.

Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-hall, Inc.

Bandyopadhyay, M. (2009). Impact of ritual pollution on lactation and breastfeeding practices in rural west Bengal, India. *International Breastfeeding Journal*, 4, 2.

Bang AT, Bang RA, Reddy MH, Baitule SB, Deshumukh MD, Paul VK, de Marshal TF (2005). Simple Clinical Criteria to identify Sepsis of Pneumonia in neonates in the Community needing treatment or referral. Society for education Action and Research in Community Health (SEARCH) *India paediatric Infect Dis J* 24(4):335-41

Berton H (2008). Peer influences on risk behavior: a network study of social influences among adolescents in Flemish secondary schools. Paper presented at annual meeting of American Sociological Association Annual Meeting, Sheraton. Unpublished. http//www.allacademic.com/meta/p239786-index.html

Braun, V. and Clarke, V. (2006). Using thematic analysis in Psychology. *Qualitative research in psychology*. 3(2). Pp. 77-101. ISSN 1478-0887. http://eprints.uwe.ac.uk/11735

Brülde, B., (2011). *Health, disease and the goal of public health. In Dawson, A. ed., Public health ethics: key concepts and issues in policy and practice*. Cambridge: Cambridge university press, 20-45.

Crowther, S.M., Reynolds, L.A. and Tansey, E.M. (2009). *The resurgence of breastfeeding, 1975-2000. London*: The Trustee of the Wellcome Trust

Davis, P., Tagoe-Darko, E. & Mukuria, A. (2003). Water, Koko, and Appetite; Complementary Feeding Practices in Kumasi, Ghana. Maryland, ORC Macro Calverton.

University of Ghana http://ugspace.ug.edu.gh

Fjeld, E., Siziya, S., Bwalya, M. K., Kankasa, C., Moland, K. M., & Tylleskar, T. (2008).' No, sister, the breast alone is not enough for my baby.' A qualitative assessment of potentials and barriers in the promotion of exclusive breastfeeding in Southern Zambia. *International Breastfeeding Journal, 3*: 26.

Fonseca-Becker F and Thomas WV (2006). Promoting Breastfeeding in Bolivia: Does social networks add to the predictive value of traditional socio-economic characteristics? *Journal of Health, Population and Nutrition 24;71-80.*

GDHS (2014). Ghana Demographic & health survey report, Ghana health service, Accra

GDHS. Ghana demographic and health survey. Preliminary Report. Ghana Health Service: Accra.

Ghana Statistical Service &ICF Macro (2009). Controlled trial Calverton, Maryland: GSS & ICF Macro

Ghana Statistical Service (2012). 2010 Population and housing census: summary report of final results. Ghana Statistical Service: Accra

Ghana. Monitoring the situation of children, women and men. Multiple indicator cluster survey (2006). Ghana Statistical Service Accra.

Ghana National Strategy for Infant and Young Child Feeding (2006). Ministry of Health

Ghana Statistical Service and Macro International (2004). Effects of Community-based promotion of exclusive breastfeeding on diarrheal illness and growth: a cluster randomized

Ghana Demographic and Health Survey report (2008). Ghana Demographic and Health Survey. Macro International Calverton, Md.

Hancock, B. , Ocleford, E. ,Windridge, K. (2009). An introduction to Qualitative Research. National Institute for Health Research, East Midlands-Yorkshire and the Humber. https//www.rds-yh-nihr.ac.uk/wp-content/uploads/2013/05/5-introuction-to-qualitative-research-2009.pdf

University of Ghana http://ugspace.ug.edu.gh

Kathryn GD, Nommsen-Rivers La, Jane MH, Robert JC (2003). Risk Factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss.

Kerr, R .B., Dakishoni, L., Shumba, L., Msachi, R &Chirwa, M (2008). "We grandmothers know plenty "Breastfeeding, complementary feeding and multifaceted role of grandmothers in Malawi. *Social Science and Medicine, 66* (5), 1095-1105.

Kramer, M. & Kakuma, R. (2012). Optimal duration of exclusive breastfeeding (Review). The Cochrane Library; 8: 140. John Wiley& Sons, Ltdhttp://www.thecochranelibrary.com

Kyla Steinkraus (2007). Extended Breastfeeding's Benefits. Issue 144

La Leche League International Centre for Breastfeeding Information (LLLI/CBI),(2003), Breastfeeding statistics September 15.

Lauer JA, Betran AP, Barros AJ, de Onis M (2006). Deaths and years of life lost due to suboptimal breast-feeding among children in the developing world: a global ecological risk assessment. *Public Health Nutr 9(6):673-685.*

Lawn J, Cousens S, Blutta Z, Darmstadt G, martins J, Paul V, Knippenberg R, Fogstadt H, Shetty P, Horton, R (2204). Why are 4 million babies dying every year? The Lancet 364:399-401

Leon-Cava, N., Lutter, C., Ross, J. and Martin, L. (2002). Quantifying the benefits of breastfeeding: A summary of evidence. LINKAGES project. Academy for Education Development. London: Pandora press

Lutter, C., (2000). Length of exclusive breastfeeding: linking biology and scientific evidence to a public health recommendation. *Journal of Nutrition 130,* 1335-1338

Meyerink, R. O., & Marquis, G. S. (2002). Breastfeeding initiation and duration among low- income women in Alabama: The importance of personal and familial experiences in making infant feeding choices. *Journal of Human Lactation, 18*(1), 38-45.

University of Ghana http://ugspace.ug.edu.gh

Mihrshahi, S., N. Ichikawa,M. Shuaib,W. Oddy,R. Ampon,M.J .Dibley,A.K.M.L Kabir, J.K. Peat . (2007). "Prevalence of Exclusive Breastfeeding in Bangladesh and Its Association with Diarrhoea and Acute Respiratory Infection: Results of the Multiple Indicator Cluster Survey 2003. *Journal of health, population and nutrition 25*(2), 195-204.

Ministry of health (2014). A Holistic Assessment of Health Sector Programme of work. Ghana.

Naanyu, V. (2008).Young Mothers, First Time Parenthood and Exclusive Breastfeeding in Kenya. *African Journal of Reproductive Health Vol 12 No 3*

Nguyen, K. (2009). Nutrition spectrum backgrounder: select interventions and country snapshots. The National Bureau of Asian Research: Centre for Health and Aging

Ochola, S. A. (2008). Evaluation of two counseling strategies promoting exclusive breastfeeding among HIV-negative mothers in Kibera slum, Nairobi, Kenya: A randomized controlled trial. PhD Thesis. Stellenbosch University, Cape Town.

Odoi-Agyarko and Brew G (2008). Report on the National Seminar on Breast-feeding Practices, Support and Status in Ghana.

Osman, H., Zein, L. And Wick, L. (2009). Cultural beliefs that may discourage breastfeeding among Lebanese women: A qualitative analysis. *International Breastfeeding Journal, l 4*, 12.

Palmer, G., 2009. The politics of breastfeeding: when breasts are bad for business. 3rd ed.

Papastavrou M, Genitsaridi SM, Komodiki E, Paliatsou S, Midw R, etal. (2015), Breastfeeding in the course of History. *Journal of pediatrics neonatal care 2*(6), 00096.

Pletta, K. H., Eglash, A., & Choby, K. (2000). Benefits of breastfeeding: A review for physicians. *Wisconsin medical journal, 99*, 55-58.

University of Ghana http://ugspace.ug.edu.gh

Quigley MA, Kelly YJ, Sacker A (2007). Breastfeeding and Hospitalization for diarrhea and respiratory infection in the United Kingdom Millennium Cohort Study. Pediatrics.

Saldana, J. (2009). The coding manual for qualitative researchers. Los Angeles: SAGE pulications.

Shaw R and Wallace LM (2002). Infant Feeding Conference, Coventry. Young Mothers Infant Feeding Project, Napier University and Scottish Office.

Sika-Bright, S. (2010). Socio-cultural factors influencing infant feeding practices of mothers attending welfare clinic in Cape Coast, Ghana. Department of Sociology and Anthropology, University of Cape Coast.

Sokol, E., Aguayo, V. & Clark, D., (2007). Protecting breastfeeding in West and Central Africa: 25 years implementing the international code of marketing breast milk substitutes. Unicef Publication.

Susina LRO, Giuglianib ERJ, Kummer sc (2005). Influence of grandmothers on breastfeeding practices. Rev Saude Publica/*Journal of Public Health*. 39(2):141-147

Tanash Hadeel Adnan, (2014). Breastfeeding knowledge, practice, attitudes, and influencing factors: Findings from selected sample of breastfeeding mothers in Bemidji, Minnesota. All Theses, Dissertations, and Other Capstone Projects. Paper 383.

Tawiah-Ayemang C, Hill Z, Bazzano A, Edmond K, Agyei O, Kirkwood B (2004). Early Initiation of Breastfeeding: Barriers and Facilitators.

UNICEF (2011). *Infant and Young Child Feeding Programming Guide, Nutrition Section Programmers.* Unit for Children, UNICEF, New York, NY.

UNICEF. (2006). *Progress for children: A report card on Nutrition Number 4*. United Nations Children's Fund. New York, USA.

University of Ghana http://ugspace.ug.edu.gh

UNICEF. (2009). *Tracking progress in child and maternal nutrition. A survival and development priority.* United Nations Children's Fund. New York, USA.

Venneman, M. M., Bajanowski, T., Brinnkman, B., Jorch, G., Yucesan, K., Sauerland, C., Mitchell, E. A. & GeSID study group (2009). Does breastfeeding reduce the risk of Sudden Infant Death Syndrome? *Paediatrics, 123*(3), 406-410.

Victor Mogre, Michael Dery & Patience K. Gaa (2016), kwoledge, attitudes and determinants of exclusive breastfeeding practice among Ghanaian rural lactating mothers. *International breastfeeding journal*, *11*, 12.

Wambach, KA &Cohen, SM. (2009). Breastfeeding experiences of urban adolescent mothers. *Journal of paediatric nursing, 24*(4), 244-254.

WHO (2016). Breastfeeding, infant and young child feeding. Available at http://www.who.int/topics/breastfeeding/en/

WHO. (2003). Global strategy for infants and young child feeding. World Health Organization, Geneva.

WHO (2012). 10 facts on child health. Geneva, Available at http://www.who.int/features/factfiles/child_health2/en/index.html (Accessed 20-1-2016)

World Health Organization (2009). Infant and Young Child Feeding: Model Chapter for Textbooks for Medical Students and Allied Health Professionals, World Health Organization, Geneva.

World Health Organization (1998). Complementary Feeding of young Children in developing Countries. World Health Organization. Geneva 39 p. (WHO/NUT/98.1)

World Health Organization (2010). *Indicators for Assessing Infant and Young Child Feeding Practices*. Part 3 Country Profiles, UNICEF and World Health Organization, Geneva.

World Health Organization (2002). Breastfeeding Duration: Evidence from Cohort Study. Global Strategy on Infant and Young Child Feeding. 55th World Health Assembly. Geneva, Switzerland.

University of Ghana http://ugspace.ug.edu.gh

World Health Organization (2000). Collaborative Study Team on Role of Breastfeeding on the Prevention of Infant Mortality. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. *Lancet*. 355:451-455

Xu, F., Qiu, L., Binns, C. W. & Liu, X. (2009). Breastfeeding in China. A review. *International breastfeeding journal, 4*, 6.

Yadavannavar, M. C. & Patil, S. S. (2011). Socio cultural factors affecting breast feeding practices and decisions in rural women. *International journal of plant, animal and environmental sciences 1*(2), 46-50.

University of Ghana http://ugspace.ug.edu.gh

APPENDICES

Appendix 1: Informed Consent

Introduction

My name is Joyce Ndekugri. I am a graduate student from the School of Public health, University of Ghana, Legon, Accra. I am undertaking a research study on the topic **''socio-cultural factors influencing exclusive breastfeeding''.** The purpose of the study is to investigate socio-cultural factors influencing exclusive breastfeeding practices among women with children age six months and less. This informed consent is to ensure that you understand the purpose and your responsibilities in the research before you decide if you want to be part or not.

Study procedure

This is a research study that would involve answering questions to an interviewer using a questionnaire and also two focus group discussions among five different mothers in to separate groups to discuss cultural influence on exclusive breastfeeding. The interview will involve answering questions about social influence on exclusive breastfeeding and knowledge in exclusive breastfeeding practices. The whole study will last for about one month but your participation will be only for today and will take about 45 minutes.

Voluntary participation

You have the right not to participate in the study or to withdraw from the study at any time without any consequences to you. Should you choose to withdraw, the information you provide will not be used in the study. You are entitled to ask questions at any point in the study for clarification. Any aspect of the questions that is not well understood will be clarified by the interviewer.

University of Ghana http://ugspace.ug.edu.gh

Risk and benefit

We do not for see any potential risk in participating in the study except that it will take part of your precious time and the need to provide to us some personal information of yours. Benefits in this study will be identifying socio-cultural factors influencing exclusive breastfeeding practices which will enable the nutrition unit of the Baku West District to device appropriate strategies to promote good child feeding practices among lactating mothers.

Compensation

No payment will be made for your time.

Confidentiality

We will protect all information you give us in this research to the best of our ability. We will not discuss your participation with anyone outside the research team. All responses will be treated as confidential as no names will be placed on the questionnaires.

This research has been reviewed and approved by Ghana Health Service Ethical Review Board. If you have any questions about this study, you may contact:

CONTACT PERSONS

Hannah Frimpong
GHS-ERC Administrator
Office +233 302681109
Mobile 233 (0) 243235225 or 0507041223
Email: Hannah.Frimpong@gmail.org

Nana Abena Kwaa
Assistant GHS-ERC Administrator
Mobile: 0244712919
Email: nanatuesdaykad@yahoo.com

University of Ghana http://ugspace.ug.edu.gh

PARTICIPANT'S CONSENT FORM

I have read through the foregoing information/the foregoing information has been read and interpreted to me and I fully understand all that has been explained to me about the objectives, benefits, risks and my rights to withdraw from the study at any time without any consequences to me. I have been given opportunity to ask questions and have been answered satisfactorily. I therefore agree to participate in this study.

Please confirm your participation by signing below.

Signature/Thumbprint of participant Date

…… ……

P.I/Research Assistants name…….

Signature …… Date……

University of Ghana http://ugspace.ug.edu.gh

Appendix 2: Questionnaires

SOCIO-CULTURAL FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING PRACTICES AMONG WOMEN IN THE BAWKU WEST DISTRICT

Questionnaire number_[_____]

District _____

A. RESPONDENTS BIO-DATA

1 How old are you? [ ]

2 What is your marital status? (Mark X as appropriate)

Single/never married	Married	Separated/divorce	Widowed	Co-habitation

3 What is your highest level of education? (Mark X as appropriate)

No formal education	Primary	Junior High School	Secondary/ vocational training	Tertiary

4 What is your **most usual** occupational source? (Please mark X appropriately **once**)

unemployed	Student	Semi-skilled (farmer/trader/food vendor)	Skilled (seamstress, hair dresser)	Professional (Nurses, teachers, administrators)	Other government employees (Clerks, receptionist and messengers

University of Ghana http://ugspace.ug.edu.gh

B. BREASTFEEEDING PRACTICE

Please tick the response that applied to you.		Yes	No
5	Did you exclusively breastfeed your last baby prior to the delivery of this new one		
6	Do you plan to exclusively breastfeed this new one?		

7 What would you be feeding the new baby with? (Please Mark as many as appropriate)

Brest milk	Animal Milk	Water	Traditional Medicines	Cereals and Porridge

8 How long do you plan to exclusively breast feed your new baby? (Please Mark X once)

Not at all	First month	3 months	6 months

9 Did you and your baby have any troubles with latching on early hours or days immediately after delivery? (Please Mark X on all applicable)

Not at all	first hour	first day	between day 2-3	Day 3 and above

10 What would determine your planned feeding length? (Please Mark X on all applicable)

If baby is healthy and Strong	If baby is sick and weak	If a health professional advices so	Nothing.

University of Ghana http://ugspace.ug.edu.gh

C. BREAST FEEDING SOCIAL PRACTICES

11 Did you have any help in breastfeeding after delivery while in the hospital? (Please Mark X on all applicable)

NO	Yes, from a lactation consultant	Yes, from a nurse who was not a lactation consultant	Yes, from someone in my family or friend	Yes, from a midwife	Yes, from a paediatrician or obstetrician

12 When you got home after delivery, how did other lactating mothers (friends and family) breastfed their babies? (Please Mark X on all applicable)

Was through breast milk	Was through Tinned milk	Was through animal milk	Others e.g., Cereals and porridge

13 Once you were home, did you get any help with breastfeeding? (Please Mark X on all applicable)

No	Yes, from family and friends	Yes, from a lactation consultant at home	Yes, from a lactation consultant from the hospital	From, a community health nurse at the CHIPS compound	From a health care practitioner from the district hospital

	YES	NO
14 Do you get advice on sessions on what to feed your baby?		

15 Who do you get advice from on breastfeeding? (Please Mark X on all applicable)

Lactation consultant	Health consultants	Community health Nurses	Friends and Family	Media	Local communal advice

University of Ghana http://ugspace.ug.edu.gh

D. KNOWLEDGE ON BREASTFEEDING

	Strongly agree	Agree	Disagree	Strongly disagree
16 Breast milk is most usually digestible than formula feed				
17 Breast feeding help mothers to lose weight				

	YES	NO
18 Do you know that Breast milk contains all the essential nutrients and water for the first six months after birth		
19 Do you know what exclusive breastfeeding is or is about?		
20 Do you know that Colostrum (the yellowish fluid) contains essential antibodies necessary to help the child's immune system?		
21 Have you used any breastfeeding package before? e.g, booklet		
22 have you used medicine for breastfeeding mothers before?		

University of Ghana http://ugspace.ug.edu.gh

Appendix 3: Focus Group Discussion Guide

Focus group discussion for women with infants' age six months and below

Introduction

My name is …….. I am here together with Joyce Ndekugri a student of University of Ghana School of Public Health.

We are happy to meet you all and we want to welcome you to this gathering. We are here to seek your opinions about some of the cultural beliefs or practices that pertain breastfeeding practice in your area. Particularly those beliefs that influence your decision to exclusively breastfeed your babies. We want you all to feel comfortable and share with us what you know and we promise you that what you say here today will go a long way to help put the right measures in place to health both you and your children.

A few ground rules

No answer in this discussion is right or wrong.

Everyone will introduce herself.

Participants should note that this discussion is very important to us.

Every discussion here shall be recorded on a tape in order to record them later, also notes shall been taken.

Only one person can talk at a time so that we can all here clearly, give comments and ask questions for more clarification.

You may also ask me questions or contributions as the discussion is on going.

University of Ghana http://ugspace.ug.edu.gh

Please we must try to finish within an hour

1 Thinking back to when you were pregnant, who helped you decide to breastfeed/formula feed?

2 What have you learned at breastfeeding sessions about feeding your baby that is different from what you may have learned from your mother and grandmother?

3 Please describe to me, what is your understanding of exclusive breastfeeding?

4 How and why is exclusive breastfeeding necessary for your babies early 6 months?

5 What are some socio-cultural believes on exclusively breastfeeding the baby on the early months of delivery?

6 What are some of the reasons you would want your baby to eat other foods either than breast milk if he/she is not more than six months?

7 Please explain to me what some cultural norms say about colostrum (yellowish fluid)