



UNIVERSITY OF CAPE COAST

A COMPARATIVE STUDY OF EXCLUSIVE BREASTFEEDING
PRACTICES OF EMPLOYED MOTHERS IN ACCRA METROPOLIS AND
WA MUNICIPALITY OF GHANA

BY

SOLOMON SIKA-BRIGHT

Thesis submitted to the Department of Sociology and Anthropology of the
Faculty of Social Sciences, College of Humanities and Legal Studies, University
of Cape Coast in partial fulfilment of the requirements for award of Doctor of
Philosophy degree in Sociology

Accession No : 0099

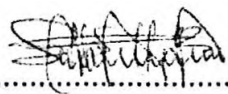
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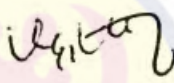
I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

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Name: Solomon Sika-Bright

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature.......... Date.....31/01/18.....

Name: Prof. Akwasi Kumi-Kyereme

Co-Supervisor's Signature.......... Date.....31/01/18.....

Name: Dr. Henrietta Abane

ABSTRACT

Maternal employment has been widely cited as one of the major barriers to exclusive breastfeeding. The present study examined how maternal employment in the formal sector is associated with the maintenance of exclusive breastfeeding among women with diverse employment characteristics in Accra Metropolis and Wa Municipality of Ghana. Socialist feminism and symbolic interactionist perspectives served as theoretical guides for the study. Data for the study was obtained from 32 interviews and 721 surveys with employed mothers who had infants not older than six months selected from the study areas. The findings showed that, type of mothers' employment, mothers' marital status and infants' age were significantly associated with exclusive breastfeeding practices. Exclusive breastfeeding was also high among part-time workers and private sector workers. Unlike the case of Wa Municipality, employment was found to be significantly associated with exclusive breastfeeding in Accra Metropolis. Lack of breastfeeding-friendly facilities at the workplace posed as a challenge for most of the mothers in this study. Mothers who were breastfeeding exclusively in both study areas were able to do so because they had family and workplace support. It is therefore recommended that employers provide breastfeeding-friendly facilities at the workplace to facilitate breastfeeding. In addition the family, coworkers and supervisors should support breastfeeding mothers. Lastly, Ministry of Employment and Labour Relations should extend the duration of the maternity leave for successful and less stressful exclusive breastfeeding by employed mothers who are breastfeeding.

ACKNOWLEDGEMENTS

Several people have made this work possible. First, I would like to express my gratitude to my principal supervisor, Prof. Akwasi Kumi-Kyereme. Without your encouragement and dedication, this work would not have been possible. Thank you for always caring about and believing in me. To my co-supervisor Dr. Henrietta Abane, your valuable input and support during the writing process has been instrumental for this work. Thank you.

My special thanks to all the teaching and administrative staff of the Department of Sociology and Anthropology, University of Cape Coast for their support. To Albert Annang, Daniel Ampem Darko-Asumadu and Standhope Anamoah-Pokoo, I say thank you for your assistance.

To all the nursing staff of the various hospitals visited, I say thank you. I am also grateful to all the employed mothers who took part in this study for telling me your stories.

I cannot end without acknowledging the support from the Social Science Research Council's Next Generation Social Sciences in Africa Fellowship, who offered me a Doctoral Dissertation Proposal Award (2014/2015 cohort). I am grateful for the training and funds I received provided by Carnegie Corporation of New York.

To my wife, Eunice Frimpong, who really comes first for without her love, companionship, confidence, sacrifices, judgment and encouragement, none of this would ever have gotten done. Thank you for the faith you had in me. To my daughter, Awurabena Sika-Bright, you are the source of my inspiration in life.

DEDICATION

To my father,

Mr. Frank Cudjoe Davis, “the wind beneath my wings.”



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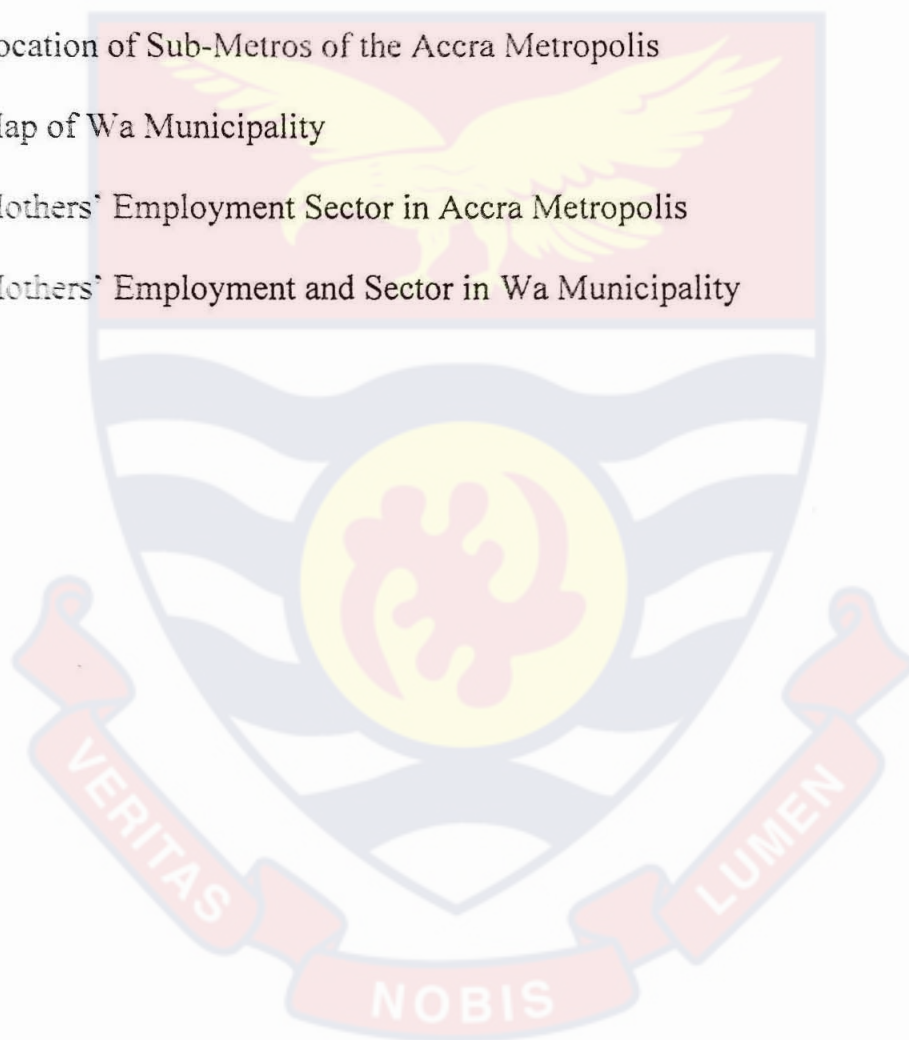
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LIST OF ACRONYMS



AAP	American Academy of Pediatrics
ACC	Administrative Committee on Coordination
AIDS	Acquired Immunodeficiency Syndrome
ARI	Acute Respiratory Illnesses
BAQ	Breastfeeding Attitudes Questionnaire
CBI	Centre for Breastfeeding Information
CHLS	College of Humanities and Legal Studies
CWC	Child Welfare Clinic
DHS	Demographic and Health Surveys
DXA	Dual-energy X-ray Absorptiometry
EBF	Exclusive Breastfeeding
GDHS	Ghana Demographic Health Surveys
GFS	Ghana Fertility Surveys
GHS	Ghana Health Service
GLSS	Ghana Living Standard Survey
GSS	Ghana Statistical Service
HBM	Health Belief Model
HIV	Human Immune-deficiency Virus
IOM	Institute of Medicine
IYCF	Infant and Young Child Feeding
LAM	Lactational Amenorrhea Method
LLLI	La Leche League International
MoH	Ministry of Health



MSD	Meteorological Services Department
NCHS	National Centre for Health Statistics
PMLC	Princess Marie Louis Children's Hospital
SCN	Sub Committee on Nutrition
SCT	Social Control Theory
SDGs	Sustainable Development Goals
SIDS	Sudden Infant Death Syndrome
SPSS	Statistical Product for Service Solutions
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UCCRIB	University of Cape Coast Institutional Review Board
UNICEF	United Nations Children's Fund
UNWPP	United Nations World Population Prospects
US	United States
USAID	United States Agency for International Development
UWR	Upper West Region
WABA	World Alliance for Breastfeeding Action
WFS	World Fertility Surveys
WHO	World Health Organization
WIC	Women, Infants, and Children

CHAPTER ONE

INTRODUCTION

Background to the Study

Over the last couple of decades, there has been an increasing interest in the promotion of exclusive breastfeeding (EBF) as the 'best' feeding method for newborns. This, to a large extent, has been inspired by mounting scientific evidence which has shown that exclusive breastfeeding significantly reduces infant morbidity and mortality and provides the most pronounced benefits to the mother (Ip, Chung, Raman, Chew, Magula, & DeVine et al., 2007; World Health Organisation [WHO], 2012). For instance, exclusive breastfeeding in the first six months of life is seen as the single most effective intervention with the potential of saving 1.3 million lives yearly worldwide (Knaak, 2005; WHO, 2012).

Consequently, the WHO and United Nations Children's Fund [UNICEF] (2009) have recommended exclusive breastfeeding for six months, followed by introduction of complementary foods and continued breastfeeding for 24 months or more (WHO/ UNICEF, 2009). The recommendation was put on the agendas of national governments, laws were developed and directives were given to promote exclusive breastfeeding and to collect evidence for effective policy interventions. For instance, the Ghana Infant and Young Child Feeding (IYCF) strategy promotes exclusive breastfeeding through age 6 months and, thereafter, the introduction of semi-solid or solid foods along with continued breast milk until the child is at least two years old (Ghana Statistical Service [GSS], Ghana Health Service [GHS] & ICF International, 2015).

However, nearly 40 percent of infants in the world are exclusively breastfed up to six months (Black et al., 2008; Peters, Wehkamp, Felberbaum, Ger, & Linder, 2005; WHO, 2012). The rates are even lower in most countries in Sub-Saharan Africa. For instance in Chad, only 2 percent of infants are exclusively breastfed, in Cote d'Ivoire, only 4 percent are exclusively breastfed; the figures for Gabon and Sierra Leone are 6 percent and 8 percent respectively (UNICEF, 2011). Although a few other countries in the region records high levels of exclusive breastfeeding (e.g. Benin (70%), Rwanda (85%), Ghana (78.4%) (GSS, GHS, & ICF International, 2015; UNICEF, 2011)), these levels usually drop after the first two months of the infants' life. For instance, the estimated 78 percent exclusive breastfeeding in Ghana is among children younger than 2 months. By age 4 to 5 months, however, only 36 percent continue to receive exclusive breastfeeding (GSS, GHS, & ICF International, 2015, p. 161).

Complementary feeding, thus giving other foods (called complementary foods) in addition to breast milk, frequently begins too early or too late, and foods are often nutritionally inadequate and unsafe. Poor feeding practices – particularly suboptimal breastfeeding and complementary feeding practices for infants and young children - are the major cause of child malnutrition along with common illnesses often exacerbated by intestinal parasites (UNICEF, 2007). In developing countries where poor practices frequently result to child malnutrition which is a major cause of more than half of all child deaths, exclusive breastfeeding is seen as imperative (Sokol, Aguayo, & Clark, 2007; WHO, 2012).

Prevalence of exclusive breastfeeding in the developing world

Exclusive breastfeeding is a relatively new concept and it is rarely practised anywhere for the recommended six months period (WHO, 2008). A cross-sectional study done in Northern Senegal confirms that water was introduced to 85 percent of the infants during the first 3 months of their lives even though there was no significant association between the early introduction of water and wasting and stunting of the infants. However, stunting was associated with age and drinking of tap water (Gupta & Stettler, 2007).

In recognition of the essential role of exclusive breastfeeding vis-à-vis infants' survival strategies, a lot of effort has gone into scaling up the rates especially in developing countries where incidence of child malnutrition and mortality is still high. Yet, successes in increasing the levels of exclusive breastfeeding have rather been modest. Recent analysis by Cai, Wardlaw and Brown (2012) on the global prevalence of exclusive breastfeeding across 140 countries, reported an increase in the developing world from 33 percent in 1995 to 39 percent in 2010 among infants aged 0-5 months. Increases from West and Central Africa were more than twofold, that is, from 12 percent in 1995 to 28 percent in 2010.

There had also been considerable improvements from 35 percent in 1995 to 47 percent in 2010 among countries in Eastern and Southern Africa whereas those in South Asia witnessed a modest surge from 40 percent in 1995 to 45 percent in 2010. Though it is still lower than the other regions, the rapid increase in West and Central Africa is probably not a surprise since it hitherto had and continues to have one of the lowest rates of EBF in the developing world for

which reason intensive efforts were made to scale up the practice in the last two decades.

Although the rates of EBF for the past two decades have been increasing, it is certainly clear nevertheless that the road to a world wherein 90 percent coverage of EBF will be reached remains a demanding task. This is evident in the current low prevalence in much of the developing world especially in West and Central Africa which happens to have one of the highest rates of malnutrition in the world (Black et al., 2008; Sokol et al., 2007; Peters et al., 2005).

In many parts of sub-Saharan Africa, breastfeeding is a strong cultural norm. However, while the advantages of exclusive breastfeeding are now well known, the primary pattern of infant feeding is one in which mixed feeding is the norm, but exclusive breastfeeding is not.

Exclusive breastfeeding in Ghana

Like in many of the sub-Saharan African countries, the practice of breastfeeding in Ghana has been a major aspect of infant feeding. The available data on breastfeeding behaviour of Ghanaian mothers shows that, as high as 98 percent of all infants younger than six months are being breastfed; and even at age 12 to 15 months, 95 percent of children continue to receive breast milk along with complementary foods. Exclusive breastfeeding on the other hand is short lived with an estimated 84 percent of infants younger than 2 months being exclusively breastfed. Although initially higher, the percentage of children who continue to receive exclusive breastfeeding by age 4 to 5 months plummets to about 36 percent (GSS, GHS & ICF International, 2015).

Unlike countries such as Namibia, Nigeria, Tunisia, and Sudan, where the rate of bottle-feeding is as high as 30 percent, the proportion of bottle-fed infants in Ghana is estimated at 16 percent among infants younger than 2 months and 21 percent among those aged 6-8 months (GSS, GHS & ICF International, 2015). At about six months of age and beyond an estimated 68 percent of Ghanaian breastfeeding children are given both solid and semisolid foods. Most of these complementary foods are made from grains, meat, egg, fish, fruits, and vegetables. A general picture of these practices is illustrated in Figure 1.

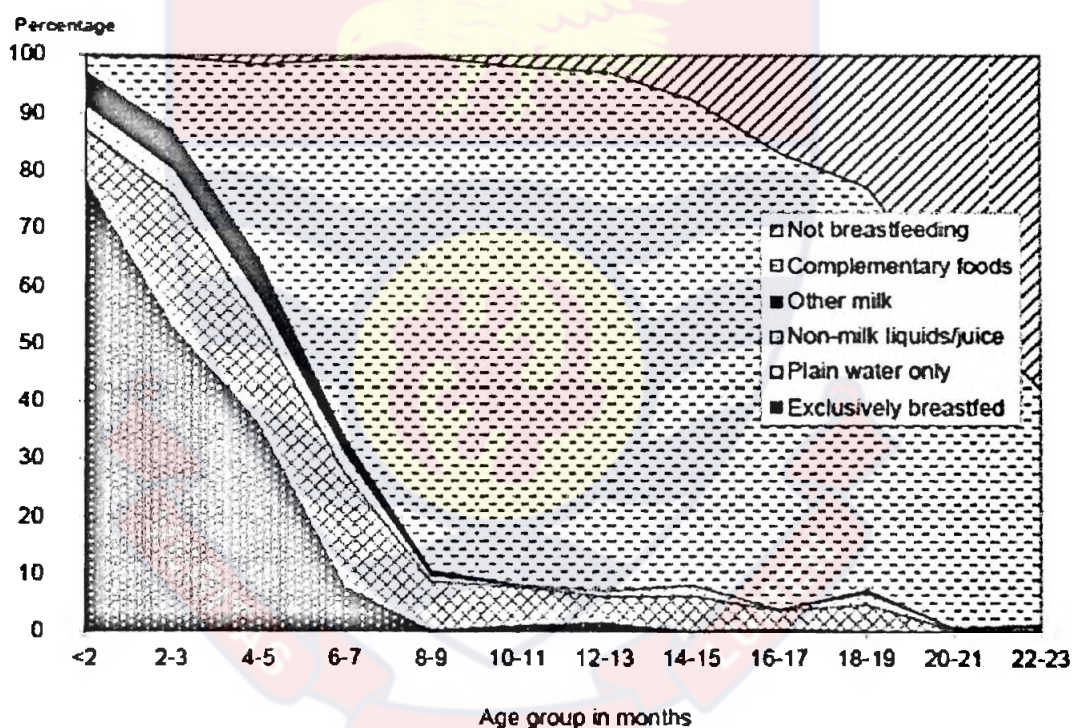


Figure 1: Infant Feeding Practices by Age

Source: GSS, GHS & ICF International, 2015, p.161

Sub-optimal infant feeding practices in Ghana stand out as a major cause of malnutrition among children under five. At a time when infants are supposed to be fed exclusively with breast-milk, they are fed alongside with complementary foods. For instance in a study conducted by Davis et al. (2003) on complementary feeding practices in Ghana, it was reported that, water and

glucose solutions are widely given to infants, beginning in the first few months. Lack of exclusive breastfeeding is therefore considered a real threat to infant survival and a major factor in infant mortality, especially in developing countries. Thus, exclusive breastfeeding for 6 months has become a public health priority worldwide. However, mothers base their infant feeding decisions and behaviours on several maternal and child factors with maternal employment as a strong barrier to the practice of exclusive breastfeeding (Huerta et al., 2011; Pak-Gorstein, Haq, & Graham, 2009; Poduval & Poduval, 2009; Rudzik, 2012; Tewodros, Jemal, & Dereje, 2009).

In order to understand the dynamics of the practice, several studies have been conducted in Ghana and in many parts of the world. Much of these studies have focused on factors and barriers to exclusive breastfeeding (Aidam et al., 2005; Otoo et al., 2009; Senarath et al., 2010). Some too have looked at the health outcomes of exclusive and non exclusive breastfeeding (Kramer, 2003); while others have also studied the potential role of husbands in breastfeeding decisions (Arora et al., 2000; Susin et al., 2008). Much less attempts however, have been made at investigating how maternal employment might influence exclusive breastfeeding practices especially in sub Saharan Africa. This thesis is thus an endeavour to meet the current knowledge gaps.

Statement of the Problem

The World Health Organization (2012) defines exclusive breastfeeding as receiving only breast milk and no other food or drink for the first six months of the infant's life. This recommendation is supported by public health campaigns and various international and national bodies. This is because, in

both developing and developed countries, exclusive breastfeeding has been shown to be of significant benefits to the infant and mother (Greer, Sicherer, & Burks, 2008; Knaak, 2005; Kramer & Kakuma, 2012; WHO, 2012).

The obstacles to achieving six months exclusive breastfeeding are varied (Baker & Milligan, 2008; Pak-Gorstein, Haq & Graham, 2009; Rudzik, 2012; Sika-Bright, 2010). In the first weeks after birth, mothers usually breastfeed exclusively. For instance, in Ghana, within the first eight weeks, as much as 78 percent of infants are exclusively breastfed (GSS, 2015). Often, those who stop breastfeeding early report difficulty with technique, worry that their child is not getting enough food or complain about low milk supply (Dennis, 2002; Noel-Weiss, Bassett & Cragg, 2006). Counselling, support and training might best address these problems. Beyond the first two months, exclusive breastfeeding rates drop drastically. Most mothers stop exclusive breastfeeding because this stage presents a different set of influences and difficulties. Most mothers report the need to return to work as the leading reason to stop exclusive breastfeeding (Baker & Milligan, 2008; Huerta et al., 2011; Podoval & Podoval, 2009).

Maternal employment is on the increase than before (Cooklin et al., 2008; Huerta et al., 2011). Furthermore, the appropriate time to resume (or start) paid work after childbirth continues to be a subject of debate. Early maternal resumption to employment may deprive infants of exclusive breastfeeding, which is associated with a number of cognitive, emotional and health benefits (Huerta et al., 2011). At the same time, maternal employment could have a positive effect on household income and the status of women within the household and society which has been shown to be an important social determinant of infant nutrition (Sethuraman, Lansdown, & Sullivan, 2006;

scantly described in the literature, although employment is often cited as a major factor contributing to early weaning (Ahluwalia, Morrow, & Hsia, 2005; Cardenas & Major, 2005; Heurta et al., 2011). Most recent infant feeding studies especially in Ghana, have focussed on factors that influence EBF (See Aryeetey & Goh, 2013; Gyampoh, Otoo, & Aryeetey, 2014; Otoo, Lartey, & Perez-Escamilla, 2009; Saaka, Takyi, & Tetteh, 2012; Sika-Bright & Oduro, 2013; Tampah-Naa & Kumi-Kyereme, 2013). Most of these studies mentioned an association between maternal employment and exclusive breastfeeding practice.

A scan through the few studies that touched on infant feeding and maternal employment revealed that only aspects of the phenomenon have been addressed (see Danso, 2014; DeRose, 2007; Mensah, 2011). For instance, Danso (2014) examined exclusive breastfeeding practices among professionals working mothers in Kumasi. However, her study was very silent on how the practice differs across the various professions. Such a finding would have aided in understanding which professionals breastfeed exclusively and why. Thus, even though it has been recognized that employment–exclusive breastfeeding experiences and pressures may be common to all mothers, other experiences are likely to be specific to particular occupations or types of work arrangements; little is known of how the exclusive breastfeeding practice among mothers of one particular occupation differs from that of another. Knowledge of how exclusive breastfeeding experiences of mothers differ from one employment situation to another in this respect is important for researchers, work organizations, policy makers and clinicians. This visualization might engender theory building and further hypotheses testing. Practically, it can lead

to the identification of employed mothers who are in the greatest need of attention and policy intervention.

For the foregoing, one would appreciate that, despite the rising profile of public health goals for exclusive breastfeeding, the answer to a fundamental question remains uncertain. That is, how would mothers who work in the formal sector exclusively breastfeed their babies for six months when they have a maternity leave of three months? This study provides new answers to this question, focusing on the employed mother's self-reported perspective on her exclusive breastfeeding experience while employed.

In addition, most research on infant feeding, and for that matter exclusive breastfeeding is not done by sociologists but by researchers in the areas of health education, international nutrition, clinical nursing, or public health; fields that have had the most influence on policy (Amir, 2011; Coveney, 2005; Esterik, 2002). As a result, breastfeeding has not always been seen as a complex process shaped by social and cultural forces interacting with local environmental and political conditions (Esterik, 2002). This study again employs sociological theories and methods, as an alternative to generate a new understanding of the phenomenon. This is a significant departure from the existing, primarily public health, nutrition, and medical research (Amir, 2011; Coveney, 2005; Esterik, 2002). It is expected that the study findings will feed into generating new possibilities to addressing the challenges of employed breastfeeding mothers to enable them exclusively breastfeed and work.

Objectives of the Study

The general objective of this study is to examine the relationship between exclusive breastfeeding and maternal employment in the formal sector.

Specifically, the study pursues the following objectives:

1. Describe the exclusive breastfeeding knowledge and practices among employed mothers in Ghana.
2. Examine the nature of mother's employment and its relationship with exclusive breastfeeding.
3. Investigate the challenges to exclusive breastfeeding practice at the workplace.
4. Explore coping mechanisms adopted by employed mothers to sustain exclusive breastfeeding.

Research Questions

Based on the objectives, the study will attempt answering the following research questions:

1. What are employed mothers' knowledge and practices of exclusive breastfeeding in Ghana?
2. What is the nature of mother's employment and how does it relate to exclusive breastfeeding practice?
3. What are the workplace challenges to exclusive breastfeeding practices?
4. How do mothers cope with exclusive breastfeeding and employment?

Definition of Terms

The terms used throughout this study are common to the literature in medical sociology, nutrition education, public health and the biological sciences. The principal terms are treated extensively in the chapters that follow. However, selected terms are defined here in order to enhance the clarity of this study.

Breastfeeding: The act of feeding a baby from a mother's breast rather than from a bottle (Merriam-Webster, 2006).

Breastfeeding duration: The length of time a mother provides breast milk for her infant, typically defined in terms of weeks or months (WHO, 2012).

Colostrum: Fluid in the breast at the end of pregnancy and in the early postpartum, containing a higher content of proteins (many of which are immunoglobulins), fat-soluble vitamins and minerals.

Complementary Feeding: Giving other foods (called complementary foods) in addition to breast milk (WHO, 2012).

Exclusive breastfeeding: Providing breast milk as the sole nutrient source for an infant. The infant's sole source of nutrition is breast-milk with the complete absence of water, herbal tea or foods (WHO, 2012).

Maternal employment: Mothers with children 0-18 years in the workforce earning wages or a salary. It includes, full, part-time work, contracting and working outside the home (Poduval & Poduval, 2009). This study focuses on the category of mothers with children 0-6months who are engaged in formal employment outside the home.

Suboptimal breastfeeding: optimal breastfeeding is defined as feeding within the first hour of birth, exclusive breastfeeding for the first six month of the

baby's life and some breastfeeding for at least two years (WHO, 2012). Any feeding that falls short of this is suboptimal.

Significance of the Study

Exclusive breastfeeding is associated with a lot of benefits for infants, especially the reduction of infant mortality (Knaak, 2005; Picaud, 2007; WHO, 2012), mothers (Bai et al., 2009; James & Dobson, 2005) and the society as a whole. Goal four of the eight Millennium Development Goals was entirely devoted to reducing child mortality by two-thirds between 1990 and 2015; 2015 had passed; however, progress in many Africa countries is insufficient in achieving this goal. Poor feeding practices such as sub-optimal breastfeeding is still widespread and often leads to malnutrition which is a major cause of more than half of all child deaths (Sokol et al., 2007).

By studying and bringing out the influences of maternal employment on exclusive breastfeeding practices to the fore, this study will be salutary; as it will contribute to a better understanding of how essential health interventions with proven empirical efficacy such as exclusive breastfeeding can be promoted among employed mothers. It is also hoped that the outcome of this study will contribute to existing literature on the subject matter by providing an expository analysis of the practice of exclusive breastfeeding in Ghana.

The issue of maternal employment which is a focus of this study is a necessary intervention in women empowerment as enshrined in the Sustainable Development Goals five and eight. In as much as maternal employment is necessary especially for household income and nutrition (Annim, Ausabo-Asare & Amo-Adjei, 2013; Sethuraman, Lansdown & Sullivan, 2006; Shroff et al.,

2011), it can affect mothers' opportunities to exclusively breastfeed for six months (Adeyinka, Ajibola, Oyesoji, & Adedej, 2008).

The study might provide insights on ways to reconcile (a) the necessity of mothers' labour force participation for family wellbeing, and (b) the benefits of exclusive, which may result in postponement or delayed employment. The study, from the socialist feminist perspective, advocates for some level of employment benefits for women which in the long run empowers them to breastfeed their infants appropriately. Moreover, this research will in no doubt serve as a basis for future research.

Organisation of the Study

The study is organized into nine chapters. Chapter One, which is the introduction, presents the background to the study, statement of the problem, objectives of the study, and the research questions. The chapter also covers definitions of terms, significance of the study, and the organization of the study. Chapter Two presents empirical review of literature on infant feeding and maternal employment. The third chapter is devoted to theoretical explanations of the phenomenon. It looks at various theories that are applicable to the study and justifies the need for sociological theories in explaining breastfeeding and maternal employment.

The fourth chapter provides background information on Ghana. The issues covered here include the geography, demographic profile, infant nutrition and employment among women. Chapter Five presents the methodology of study. The chapter describes the philosophical underpinnings of the study, study design, study population, sampling, data collection procedure and data

processing and analysis. Data collected for the study is analysed and discussed in Chapters Six, Seven and Eight. Finally, summary of the findings, conclusions, recommendations and areas for further studies are presented in Chapter Nine.



CHAPTER TWO

EMPIRICAL REVIEW OF EXCLUSIVE BREASTFEEDING AND MATERNAL EMPLOYMENT

Introduction

Exclusive breastfeeding has become a subject of wide concern in the past few years, because of the modest link between exclusive breastfeeding and its importance to early childhood nutrition and health and, in part, fertility. However, with the recent increasing number of mothers in the paid labour force, it is becoming increasingly difficult for mothers to practice exclusive breastfeeding for the recommended six months. This chapter presents and discusses scholarly literature pertinent to exclusive breastfeeding practices and maternal employment. Some of the highlights of the chapter are the optimal duration of breastfeeding, perceptions and attitudes regarding exclusive breastfeeding, benefits of exclusive breastfeeding, and determinants of exclusive breastfeeding among employed mothers.

Optimal Duration of Exclusive Breastfeeding

Since announcement of the World Health Organization's (WHO) recommendation that all infants be exclusively breastfed for 6 months, there has been an ongoing debate as to whether the recommendation is wholly appropriate for all infants over the world. Although there is no doubt as to the nutritional and emotional benefits of exclusive breastfeeding, the crux of the argument is centred on the benefit of exclusive breastfeeding up to 6 months for all infants.

Some researchers believe breast milk to be nutritionally adequate to the age of 6 months, that exclusive breastfeeding is protective against a plethora of infant conditions, and that these benefits are demonstrated in developed as well as developing countries (Kramer & Kakuma, 2012). This view is advocated by the WHO, American Academy of Pediatrics, the European Society of Pediatric Gastroenterology, Hepatology and Nutrition, and the UK Department of Health (Greer, Sicherer, & Burks, 2008).

Others are also of the view that, although exclusive breastfeeding for 6 months is undoubtedly the best recommendation for infants in developing countries, in developed countries, where the risk of gastrointestinal infections are reduced and allergic conditions are increased, the benefits of exclusive breastfeeding for this long are not that strong (Grimshaw et al., 2013).

To assess the issue, a systematic review commissioned by the WHO was undertaken by Kramer and Kakuma in 2002 and subsequently published (Kramer & Kakuma, 2004). The aim of the review was to consider whether mother and infant outcomes differed with exclusive breastfeeding for a minimum of 4 months compared with 6 months. The authors identified 20 studies comparing exclusive breastfeeding for 6 months versus 3–4 months.

The overall conclusions of the review were that there was no objective evidence of a “weanling’s dilemma,” that infants who were exclusively breastfed for 6 months experience less morbidity from gastrointestinal infection, and that no deficits were shown in growth. The authors went on to state that large randomised trials are recommended to rule out small adverse effects on growth and to confirm the reported health benefits of exclusive breastfeeding for 6 months (Kramer & Kakuma, 2004).

A second systematic review of the optimal age of weaning in the United Kingdom concluded that there was no compelling evidence to support a change in the then WHO recommendation to introduce solid foods into the diet at 4–6 months of age (Lanigan, Bishop, Kimber, & Morgan, 2001). Subgroups in the infant population (eg, low-birthweight infants) were identified who might benefit from the introduction of appropriate complementary foods sooner than in the majority of the population. No research was identified that had been specifically undertaken to test the appropriateness of 6 months of exclusive breastfeeding compared with 4–6 months in a randomized control trial study design on full-term infants in a developed country setting. It is important to note the subtle, but important, differences in emphasis of the 2 systematic reviews.

The WHO's review (Kramer & Kakuma, 2002) evaluated evidence for the appropriateness of the length of exclusive breastfeeding; the Lanigan review was designed to assess evidence for the appropriateness of the optimal age for introduction of solid foods, regardless of the type of milk feeding. The Lanigan review has been criticized on the basis that the authors received financial support from industry, although they claim the work was in fact carried out independently.

Since the WHO's systematic review, few data have been published that add significantly to the scientific basis for the global recommendation. Burdette et al. (2006) investigated growth and body composition in 5-year-old children by using dual-energy X-ray absorptiometry (DXA) and found no effect of the duration or exclusivity of breastfeeding on fat or lean mass. Chantry, Howard and Auinger (2006) compared exclusive breastfeeding for 6 months with 4 to 6 months in a secondary analysis of data from children aged 6 to 24 months from

the third National Health and Nutrition Examination Survey. Infants fully breastfed for 4 to 6 months were at greater risk of pneumonia than were those who were exclusively breastfed for 6 months. After adjustment for demographic variables, childcare, and smoke exposure, children breastfed for 4 to 6 months had a significantly higher risk of pneumonia and 3 episodes of otitis media than did children fully breastfed for 6 months.

However, Norwegian medical researchers and other experts have been at loggerheads for years regarding how long infants in Norway should be fed breast milk exclusively, and when the weaning process should commence with introduction to solid foods (Graven, 2013). New Norwegian studies show that after two to three months of nursing a child, concentrations of B12 in breast milk decline (Graven, 2013). Medical experts are now reversing a recommendation from health officials who previously said that parents can optimally wait until their baby is six months old before giving it solid foods. Paediatricians, Ingrid Torsvik and Anne-Lise Bjørke-Monsen, of Haukeland University Hospital in Bergen are among the scientists who say that “six months of nothing but milk from mum is overdoing it”. They think children’s health would benefit if authorities started recommending four months as the limit for feeding a child nothing but breast milk (Graven, 2013).

Although some mothers in developed countries succeed in exclusively breastfeeding their infants until 6 months of age or beyond, many others report introducing other foods before 6 months. The reason most frequently given for the “early” introduction of solids is that the mother considers the infant to be hungry and not satisfied by breast milk alone. In many developed countries, exclusive breastfeeding for 6 months remains relatively uncommon. For

example, in the United Kingdom in 2000, only 2% of mothers were exclusively breastfeeding at 6 months (Hamlyn, Brooker, Lleinikova, & Wands, 2002); the reported figure in the United States is 18% (Ryan, Wenjun, & Acosta, 2002).

On a whole, a reasonable interpretation of the available scientific data is that there are currently insufficient grounds to confidently recommend an optimal duration of exclusive breastfeeding of 6 months as opposed to 4–6 months for infants in developed countries (Fewtrell, 2007). In fact, the data suggest that it is plausible that breast milk may not meet the full requirements for energy and certain micronutrients of the average infant at 6 month of age. Based on available scientific data, a policy of exclusive breastfeeding for 6 month appears eminently sensible for countries in which clean water and safe, nutritious first solid foods are scarce. Scientific evidence supporting the same policy for the developed world is less persuasive. However, the WHO recommendation is intentionally a global one, on the basis that what is best for an infant in terms of the duration of breastfeeding should not depend on his or her environment, and concerns that having a different recommendation for the developed world might be seen as undermining breastfeeding.

This topic was reviewed by Foote and Marriott (2003), who concluded that the evidence that introducing solids before 6 months causes harm is weak for infants in developed countries and that infants should be managed according to their individual needs. This view is widely held among health professionals having regular contact with mothers and infants, especially given the fact that it is not consistent with current maternal behaviour and choice in many countries.

The above discussions point to one fact, that exclusive breastfeeding for 6 months is appropriate for infants in the developing world including those in

sub-Saharan Africa and for that matter Ghana. Thus, developing nations have environmental sanitation problems; as such preparation and preservation of infant food become a problem. Infant foods prepared and preserved under such unhygienic conditions questions their efficacy when given to the child. Such foods are usually affected by pathogens and as such they become detrimental to the infant's health.

Other researchers look at the problem from the nutritional angle; that infants in the developing world are malnourished because the food they take, be it breast-milk or complementary foods, are deficient in one or more nutrients needed for child growth. They also claim mothers eat poorly balanced diet, and as such breast-milk production becomes minimal and poorly composited. Complementary foods are also prepared so poorly that at most times it is hugely composited by carbohydrates, with little or no protein. It has also been argued that low income, uneducated mothers who might otherwise breastfeed are persuaded by various marketing practices to bottle feed and that often these mothers do not have the knowledge or the resources necessary to use bottle feeding methods in a nutritionally sufficient or safe and hygienic fashion.

Thus, formula feeding can be expensive relative to typical incomes in less developed countries causing bottle feeding mothers to over dilute the mixture or substitute less nutritious foods (e.g., powdered, evaporated, or condensed milks) for formula leading to malnutrition of the infant (Sim, 1980). Based on some of these reasons, the six months exclusive breastfeeding had been justified as the best feeding method for infants especially in developing countries.

Knowledge and Perceptions about Exclusive Breastfeeding

Among studies considering the influences of maternal knowledge regarding breastfeeding on infant feeding practices, most indicate that knowledge predicts breastfeeding initiation and intention (Apanga, 2014; Issaka et al., 2014; Khoury et al., 2005; Wamback et al., 2011). However, there is no association with EBF, according to a cross-sectional study among 599 Jamaican women (Chatman et al., 2004). Enrolling primiparous women from prenatal clinics and schools in the Midwest (US), a randomized controlled trial with educational and counseling intervention found that breastfeeding knowledge predicts initiation.

Studies assessing maternal positive and negative attitudes towards breastfeeding most often considered breastfeeding duration as the key outcome, although some studies focus on intention and exclusivity as well. Most studies include items to assess both positive and negative attitudes, however, a few singularly focus on positive or negative (Khoury et al., 2005) attitudes. A number of studies incorporate attitudinal subscales similar to the Breastfeeding Attitudes Questionnaire (BAQ) (Mossman et al., 2008). Most studies that assess the influence of maternal attitudes on breastfeeding indicate that stronger positive attitudes increase the likelihood of continued breastfeeding; conversely, stronger negative attitudes increase the chance of shorter breastfeeding duration (Gill et al., 2007; Scott et al., 2006). A few studies found that attitudinal indices did not predict breastfeeding duration (Evans et al., 2004; Lewallen et al., 2006) and exclusivity (Chatman et al., 2004), however these studies also had a small or non-representative sample, or little variance in reported attitudes. Among studies that assess how predictive attitudes are of

intention to breastfeed, attitudes appear to be associated with intention (Gill et al., 2007; Wambach, 1997).

A study conducted among 587 Australian women recruited from maternity clinics, assessed attitudes shortly before or during postpartum hospital stays; and subsequent breastfeeding through telephone follow-up interviews at 4, 10, 16, 22, 32, 40, 52 weeks after delivery. Maternal attitudes were not associated with breastfeeding duration for most of the time points assessed, with the exceptions of 6 and 12 months (Scott et al., 2006). In the Midwest (US), a study including 602 mothers similarly conducted in-person interviews during postpartum hospitalization, and telephone follow-up interviews at 1, 3, 6, 9, and over 12 months after delivery. All sub-analyses indicate attitudes associated with breastfeeding behavioural outcomes (Duckett et al., 1998).

Another study in the Midwest with postpartum interviews, and telephone follow-ups (only to 16 weeks after delivery) additionally randomly assigned interventions (formula samples, manual breast pump, formula and breast pump). In all three groups, attitude regarding infant feeding choice significantly predicted partial breastfeeding duration, controlling for other demographic and intervention-related covariates (De La Mora & Russell, 1999). There has been a noticeable difference cultural background as it pertains to EBF attitudes and how EBF knowledge is acquired. One study analyzed the attitudes of Asian and Caucasian mothers in regards to breastfeeding and formula feeding through the use of questionnaire.

The results identified attitudes towards duration and efficacy as being a factor influencing the intention to breastfeed in Asian and Caucasian backgrounds (Simmie, 2006). In the same study done in England, it was also

suggested that all mothers receive knowledge about breastfeeding from hospital midwives; the Asian community however also gained knowledge about breastfeeding from family and the mother's own mother (Simmie, 2006). A study done in Hong Kong, China used a sample of 82 Chinese women who had a normal vaginal delivery at a local hospital. The purpose of the study was to explore the relationships between knowledge, self efficacy, and demographic patterns on the patterns of breastfeeding. The results found that women who researched breastfeeding information on the internet, were married, and highly educated were more likely to breastfeed exclusively (Ku & Chow, 2010). The findings were consistent with that of the United States.

Besides the attitudes of the mother, attitudes of those who interact with the mother have been shown to influence the mother's exclusive breastfeeding practice. Pletta, Eglash and Choby (2000) reported that "a mother's confidence in her ability to breastfeed and a strong family support system" are related to longer breastfeeding duration (Pletta et al., p. 57).

Exclusive breastfeeding perceptions

Almost 40% of babies are exclusively breastfed worldwide (Knaak, 2005; UNICEF, 2006). Furthermore, it is estimated that 63% of the babies younger than 6 months in the developing countries have not been breastfed to a satisfactory degree (USDHHS, 2010). The small percentages of exclusive breastfeeding observed internationally (Li et al., 2003; Griffiths et al., 2005; Cattaneo et al., 2010) are mainly due to the fact that such a natural process is not only determined by biological factors, but it is also supported by the perceptions and behaviours prevailing in each society (De Almeida & Novak, 2004).

As we know the percentages of exclusive breastfeeding are supported by the habits, ideas, attitudes and behaviours prevailing in each society (De Almeida & Novak, 2004). Some of these ideas or attitudes are related with quality of mother's milk. For example, various beliefs prevailing in Pakistan are related to the sensitivity of mother's milk to the powers of evil and similar ones exist in Bangladesh. In these countries, if a baby is sick or cries too much, the quality of mother's milk is examined in laboratories. The doctors in these countries recognize that the "insufficient milk syndrome" has a scientific basis (Bledsoe, 1987).

The study of anthropologists in Bangladesh on the specific syndrome is characteristic. According to Zeitlyn and Rowshan (1997), the parents were concerned by their baby's cries. The interpretation of their neighbours was that the baby might have been affected by the "batash" (an evil spirit or wind) and this also was confirmed by a religious healer (Hazar). The healer diagnosed that the mother's milk was "afflicted" by the batash and was stale. He advised them to stop breastfeeding and start artificial feeding.

Such civilizations consider that mother's milk is made of blood. The colostrum is also described as "thick" and is compared to pus due to its appearance (Zeitlyn & Rowshan, 1997). As it is believed in these countries, the batash wind can afflict a baby either directly or indirectly changing the composition of mother's milk. Batash is associated with impurities and with the impure liquids of the body, such as the blood. For the above reason, the ones bleeding or breastfeeding are considered vulnerable. The feeling of weight or "swelling" that a mother can have during the lactation period is one of the symptoms that her milk has been affected by the batash spirit (Zeitlyn &

Rowshan, 1997). One way to protect neonates is the placement of specific objects under the mattress during their sleep. Such objects are usually a match box (because it is considered that fire scares and drives the spirits away), a bone from an animal sacrificed by the Muslims on specific days and a few hairs from a broom used to drive the batash influence away (Zeitlyn & Rowshan, 1997).

When a breastfeeding baby in Bangladesh falls ill, the popular belief attributes the illness to the mother's behaviour that has either failed to maintain the temperature of her body or has eaten foods that are not considered proper for breastfeeding or behaved in such a way that made her and her baby vulnerable to spiritual powers afflicting the milk. Therefore, the most proper and popular way of sending the evil spirit away in such civilizations is the initiation of artificial feeding (Zeitlyn & Rowshan, 1997).

A critical look at exclusive breastfeeding from a more anthropological-social point of view, brings to the fore that cultural practices and beliefs prevailing in a society determine to a considerable extent what feeding practice is considered natural and, therefore, accepted by people. For this reason, health public policies and, more specifically, the promotion and support policies of breastfeeding worldwide must always take into consideration the cultural status of a society. That is the attitudes and beliefs forming the perceptions prevailing in a place about diseases and health, the traditional practices related to diet, the values and ideals promoted by the society so that the said practices can be more effective and efficient for the implementation of the objectives of public health.

It appears to suggest at least from the cited findings that the perceptions of exclusive breastfeeding are numerous and many of them as demonstrated above are frequently reported in different parts of the world. All the same, it is

plausible to think that success rates in public health interventions that are designed to promote exclusive breastfeeding will improve if a broad-spectrum of these perceptions is taken into account.

Benefits of Exclusive Breastfeeding

Extensive researches using improved epidemiological methods and modern laboratory techniques document diverse and compelling advantages exclusive breastfeeding for infants, mothers, families, and society (Lamberti et al., 2011; WHO, 2012). Given that prolonging people's lives (by reducing mortality) and preventing disease (by reducing morbidity) are some of the goals of public health (Brulde, 2011), EBF has been acknowledged as an effective approach to the achievement of these goals.

Benefits for babies

According to the 2005 policy statement of the American Academy of Pediatrics, breastfeeding offers protection against ear infections, diarrhea, lower respiratory infections, bacterial meningitis, urinary tract infections, diabetes (Ip et al., 2007), lymphoma, chronic digestive diseases, obesity (Moss & Yeaton, 2014), Sudden Infant Death Syndrome (SIDS), dental and vision problems (American Academy of Pediatrics, 2005). In addition, breast-milk passes immunological benefits from mother to child—a process that is impossible to reproduce synthetically by infant formula (Hanson, Korotkova, & Telemo, 2003).

According to WHO (1995), of the 11.6 million children under age 5 who die each year in the developing world, approximately half succumb to infectious diseases such as acute respiratory infections (including pneumonia), diarrhea,

measles, and malaria. The nutritional status of children has a significant impact on their chances of surviving an infectious disease episode. Many research publications have estimated that malnutrition is a contributing factor in 54 percent of deaths among young children in developing countries (Pelletier et al., 1993). Exclusive breastfeeding can help decrease child morbidity and mortality not only by improving a child's nutritional status, but also by protecting against infection through its immunologically active elements and by preventing dehydration in infants with diarrhea (Lamberti et al., 2011; WHO. 2003).

There are numerous studies demonstrating breastfeeding's contribution to saving children's lives, for instance, an infant who is breastfed has a reduced risk of developing diarrhea (Arifeen et al., 2001; Betran et al., 2001; Bhandari et al., 2003). Moreover, there appears to be a "dose-response" relationship between breastfeeding and risk of diarrhea, that is, infants who are exclusively breastfed have the lowest risk of developing diarrhea, infants who are partially breastfed have an intermediate risk level, and infants who are not breastfed at all have the highest risk. For instance, a study carried out in Peru revealed that, infants under six months of age who were partially breastfed had a 2-3 times greater risk of developing diarrhea compared to infants who were exclusively breastfed. Infants who were not breastfed at all were at even higher risk for diarrhoea, 3-5 times greater than infants fed with only breast milk. Breastfeeding also dramatically reduces an infant's risk of dying from diarrheal disease.

Breastfeeding also helps protect infants against acute respiratory illnesses (ARI). A study in Peru showed that infants under 6 months of age who were not breastfed had a fourfold greater risk of developing acute respiratory

infections compared with exclusively breastfed babies (American Academy of Pediatrics, 2012). Exclusive breastfeeding has also been seen to reduce if not prevent the rate of ear infections (Ladomenou et al., 2010; WHO, 2012). For instance, in a study of over 1,000 infants, exclusively formula-fed babies had twice as many ear infections in the first year of life as infants who breastfed exclusively for four months or more. The recurrent otitis media rate in infants who breastfed for six months or more was 10 percent compared to a rate of 20.5 percent among infants who breastfed for less than four months (Ladomenou et al., 2010; Talayero et al., 2006).

Breastmilk is also noted to have immunological properties that protect infants against disease. This has been recognized for years. However, only in the past few decades have investigators begun to identify the specific anti-infective properties of human milk that make it a peerless substance for child feeding. Breastmilk contains hundreds of special components, such as antibodies, white blood cells, lactoferrin, and enzymes that help protect infants against infections (WHO, 2012). Breastmilk also contains enzymes and leukocytes in abundance. These components account for most of the unique anti-infective properties of breastmilk. These biologically active elements can never be reproduced by any infant formula. This protective effect is most striking in communities with poor sewage systems, poverty, and malnutrition. Because of the presence of protective antibodies in breastmilk, exclusive breastfeeding is sometimes referred to as a baby's first immunization. Findings suggest that breastfeeding may also stimulate an infant's immune system and improve the immunologic response to vaccines (Talayero et al., 2006).

Exclusive breastfeeding also contributes to a reduction in overall child mortality (Jones et al., 2003; Knaak, 2005). The effects are greater with exclusive breastfeeding and for younger infants (under 6 months of age). In a study by Vennemann and colleagues (2009) breastfeeding was found to be protective against sudden infant death syndrome by reducing the risk by 50% at all ages during infancy; these benefits have been reported to exhibit dose-response relationship, that is, health gains increases with increases in duration and exclusivity.

Worldwide, the beneficial effects of exclusive breastfeeding are even more significant. UNICEF (2011) indicates that optimal breastfeeding could save more infant lives than almost any other single measure. Every year, more than 10 million children die from mainly preventable causes, including diarrhoea, pneumonia, measles, malaria, and HIV/AIDS. If every baby were exclusively breastfed from birth to six months and continued breastfeeding to any amount for a few months thereafter, an estimated 10.5 million lives would be saved each year (Jones, et al., 2003; UNICEF, 2011; WHO 2012).

Breastmilk remains an important source of nutrition for two years or more after birth. It is especially vital during the transitional period when the infant or young child is adjusting to solid foods and alternative sources of fluids. For the nursing infant, breastmilk is also an important source of micronutrients such as vitamin A and iron, and the positive impact on child health is significant. For instance, a study in Bangladesh showed a 74 percent reduction in the risk of vitamin A deficiency (manifested clinically as xerophthalmia) among children who were breastfed (Jorgensen et al., 2001).

Other developmental benefits of exclusive breastfeeding are that, it enhances brain development and learning readiness. This is due to the presence of docosahexaenoic acid in breast milk which also contribute to the growth and the development of healthy eyes and nervous system (Drover et al., 2012; Kimani-Murage et al., 2011). Moreover, breastfeeding is also associated with higher developmental scores and improved cognitive development (Oddy et al, 2011; Quigley et al. 2012) Exclusive breastfeeding provides frequent interaction between mother and infant, fostering bonding, a sense of security, and stimulus to the baby's developing brain.

A meta-analysis of 20 controlled studies showed that exclusive breastfeeding was associated with a 3.2-point higher cognitive development score than formula feeding, after adjusting for key cofactors (Anderson et al., 1999). These differences were seen early in development and were sustained through childhood and adolescence. Increased breastfeeding duration was accompanied by a gradual increase in cognitive development. The benefits were greater for low birth weight infants than for normal-weight infants.

Benefits for the mother

Exclusive breastfeeding benefits are not only limited to the child, important health benefits are also described for mothers. In the short term, breastfeeding increases oxytocin levels, which leads to more rapid uterine involution and less postpartum bleeding. Oxytocin, the love or bonding hormone, also contributes to maternal child bonding leading to better adjusted new mothers and babies (ANON, 2011; Bai et al, 2009; Yokoyama et al., 2006). Increasing oxytocin levels, breastfeeding protects the mother from postpartum

hemorrhage (James & Dobson, 2005; Philipp & Jean-Marie, 2007; Stuebe & Bonuck, 2008). The rate of postpartum mood disorders, such as postpartum depression (PPD), is lower among breastfeeding mothers (Mancini, Carlson & Albers, 2007; U.S. Department of Human Health Services, 2011).

There is also decreased menstrual blood loss and increased child spacing attributable to lactational amenorrhea. Additionally, because it results in increased uterine contraction, breastfeeding allows the uterus to return to its pre-pregnant size and weight more quickly (AAP, 1997). To paraphrase the American Dietetic Association (James & Dobson, 2005), because exclusive breastfeeding delays menstruation through its inhibitory effect on ovulation, it serves as a "natural form of birth control." Pregnancies that are too closely spaced are deleterious for both the mother and the infant's health (Perez et al., 1993). By delaying the resumption of the menstrual cycle, exclusive breastfeeding causes less menstrual blood loss, which conserves iron stores.

The long term benefits of breastfeeding for women who breastfeed are that, a decreased risk for hip fractures to occur in the period after menopause; a level of bone re-mineralization that may exceed pre-pregnancy levels; an improved glucose profile for mothers with gestational diabetes; they have lower their risk of developing uterine cancer, osteoporosis, type 2 diabetes, and breast cancer (AAP, 2005; James & Dobson, 2005; Stuebe & Bonuck, 2008; Tung et al., 2003). Stuebe and colleagues recently published a study reporting that among mothers who have been pregnant before, each additional year of lactation decreases their risk of developing type '2' diabetes by 15 percent (Stuebe et al., 2005).

The link between breast cancer and exclusive breastfeeding was shown in a study of the Tanka boat people of Hong Kong. The women of this fishing community traditionally only breastfeed from the right breast perhaps allowing them to paddle their canoes while breastfeeding their babies. Researchers found a statistically significant increase in breast cancer in the left, unused breast (Ing et al., 1997). Since that report, numerous other studies have reported similar findings; that every time a woman exclusively breastfeeds, she reduces her risk of developing breast cancer (Collaborative Group on Hormonal Factors in Breast Cancer, 2002).

Benefits for family and society

For the family and society as a whole, exclusive breastfeeding has some benefits. It delays the resumption of ovulation and the return of a woman's menstrual cycle, thus serving as the physiological basis of Lactational Amenorrhea Method (LAM). Data from the Demographic and Health Surveys (DHS) show that the duration of lactational amenorrhea (absence of a menstrual period due to breastfeeding) was strongly associated with the duration of breastfeeding (DHS, 1999).

In addition to its benefit in decreasing fertility, breastfeeding also contributes to improved child survival by increasing the interval between the births of children. An analysis of DHS data showed that babies born less than 2 years after their next older sibling are twice as likely to die compared to children with at least a 2-year interval. A 3-year interval between births provides even more survival chances (DHS, 1999). Exclusive breastfeeding also leads to more sleep for both parents, which has a large effect on mental health and productivity (Doan, Gardiner, Gay & Lee, 2007).

Breastfeeding also allows the family to save the money that otherwise would be spent on infant formula, other milk substitutes, and feeding equipment. It also improves household food security and saves the family's disposable income for food for older children and adults. For example, in the United States, families that do not breastfeed spend close to \$700 for standard formulas in the first year. In this author's opinion, for many families in the developing nations who survive on less than a dollar a day, spending \$700 on infant food can be prohibitive (James & Dobson, 2005).

Employers and employees profit from the positive health effects of exclusive breastfeeding. Fewer illnesses among children and mothers mean that employees take less time off to care for sick children or tend to the mother's health, leading to higher productivity and fewer health insurance claims, which greatly benefit employers (Breastfeeding Moms, 2012; U.S. DHS, 2011). The government and non-profit agencies also save money when more women breastfeed, because less money is spent to provide infant formula to low income mothers through programs like the Supplemental Nutrition Program for Women, Infants and Children (WIC) (American Academy of Pediatrics 2005). In 2007, the annual cost to "provide formula to mother's enrolled in" WIC was \$2,665,715 (Trevathan, 2010).

Other benefits

The American Dietetic Association (ADA, 2009) also emphasizes that exclusive breastfeeding contributes to the health of the environment. This is because breastmilk is a natural resource that is renewable with each pregnancy, which is produced and delivered to the consumer (the infant) without using and wasting other resources, and which does not create pollution. In contrast to

infant formula for example, breastmilk does not require manufacturing, packaging, shipping, disposing used containers, or even advertising.

Breastmilk also conserves natural resources which would have been used during the manufacturing of replacement feeds (such as fossil fuels) and, through its effect on postpartum amenorrhoea when mothers breastfeed exclusively, it suppresses fertility and increases birth spacing, thus improving the health of the mother and the child while limiting population growth (James & Dobson, 2005).

Determinants of Exclusive Breastfeeding among Employed Mothers

One could define an employed mother as a woman with the ability to combine a career with the added responsibility of raising a child (Poduval & Poduval, 2009). Within this broad term may be encompassed two different categories of employed mothers: the stay at home mother who works from home and the mothers employed far away from home while managing to fulfil her maternal duties (Poduval & Poduval, 2009).

With increased urbanization and industrialization, more and more women have joined the work force. An estimated 50 percent of women employed in the workplace are of reproductive age and return to work between three to twelve months of their infants' births (Wyatt, 2002). This implies that many working women start their families while they are working, and some others may find the need to return to work sooner than expected in the postpartum period (Poduval & Poduval, 2009).

The working mother is an institution in her own right, one who combines a successful career giving her financial independence, with an effective

motherhood of raising a child. It is important to understand that both these jobs are extremely demanding, and to do justice to each without neglecting the other is a formidable task (Poduval & Poduval, 2009).

An extensive literature has addressed a wide range of factors pertaining to exclusive breastfeeding and maternal employment (Britton et al., 2007; Callen & Pinelli, 2004; Dennis, 2002; McInnes & Chambers, 2008; Wambach et al., 2005). These factors have been categorised into socio-demographic factors, psychosocial factors, and resources factors reported in the literature that employed mothers may encounter while engaged in exclusive breastfeeding and remained employed.

Socio-demographic factors

Common socio-demographic factors include the mother's demographic characteristics, socio-economic status and the recent health history of the mother and infant (Jacknowitz, 2006; Li et al., 2005; Rojjanasrirat, 2004). The following section examines the influence of maternal socio-demographic characteristics on exclusive breastfeeding.

Maternal age and education

Research studies addressing the influence of maternal age and education on exclusive breastfeeding initiation and duration have varying results (McDowell, Wang & Kennedy-Stephenson, 2010; Shahla, 2010; Hurley et al., 2008). Investigators have found a strong, positive correlation between maternal age and education level and breastfeeding initiation and duration. Specifically, older, more educated women are the subgroup most likely to choose exclusive breastfeeding as their preferred infant feeding method, and generally they

breastfeed their children longer than other groups (McDowell, Wang & Kennedy-Stephenson, 2010; Hurley et al., 2008).

The connection between breastfeeding mothers' level of education and desirable or undesirable breastfeeding practices has been wavering from one study to another. For example, whiles, Bertini and colleagues reported that, low level of maternal education has been linked with low breastfeeding rates (Bertini, et al., 2003). Singh and colleagues found that, education level had mixed effects of breastfeeding initiation and duration rates as highest rate were found in highest educational bracket (13 years or more) and lowest rates in intermediate educational bracket (12 years) (Singh et al., 2007).

Jacknowitz (2006) used descriptive techniques to examine the demographic variables of maternal age, education, race, ethnicity, and income level from the 2002 Ross Mothers Survey, in conjunction with birth data from the 2002 National Vital Statistics Report (NCHS). Jacknowitz found that 9.8 percent of the increases in initial breastfeeding rates were associated with increased maternal age and 11.5 percent with higher levels of maternal education. Maternal age accounted for 10.2 percent of increased rates of exclusive breastfeeding at 6 months and maternal education accounted for 9.0 percent. Jacknowitz concluded by recommending the consideration of and/or control for demographic factors such as maternal age and education in the evaluation of policies and programs related to health behaviours such as breastfeeding intervention design.

Ross Mothers' Survey (Ross Mothers' Survey, Abbott Laboratories, 2000) also reported that women less than 20 years of age were the least likely to breastfeed in the hospital (Ross Mothers' Survey, 2000). Other researchers

have found that maternal age co-varies with other variables such as marital status, education level and race. Older women are more likely to breastfeed exclusively (Arora et al., 2000; Hurley et al., 2008; Sloan et al., 2006). De La Mora et al. reported a statistically significant correlation between maternal age and attitudes toward infant feeding methods. Older women were found to have more positive attitudes toward breastfeeding (De La Mora et al. 1999).

Multiple studies addressing the factors associated with exclusive breastfeeding have "identified adolescent mothers as one group that is unlikely to breastfeed" (Volpe & Bear, 2000, p. 196). Specifically, the infant feeding decisions of adolescent girls are often influenced more by social attitudes and family than by knowledge of breastfeeding benefits. However, breastfeeding education can influence adolescent mothers. Volpe and Bear (2000) conducted research involving 91 pregnant adolescents enrolled in a high school adolescent-pregnancy program. The adolescents participating in the study were divided into two groups; those receiving breastfeeding education from a lactation consultant in group classes, and those who did not receive the breastfeeding education. "Of the 48 adolescents who received no special education, 7 (14.6%) initiated breastfeeding. Of the 43 adolescents in the education group, 28 (65.1%) initiated breastfeeding, which indicates a significant difference between groups with regard to infant feeding choice" (Volpe & Bear, p. 196).

Marital status

Married women breastfeed their infants exclusively more often than single women (Arora et al., 2000; Scott & Binns, 1999). Similarly, unmarried women with less than a high school education choose breastfeeding at much lower rates than married women with a higher level of education. When

unmarried women do prefer to breastfeed, their rates and duration are lower (Grossman et al., 1989). In a study by De La Mora et al. (1999), the attitudes of married women concerning breastfeeding were more positive than were the attitudes of single mothers (De La Mora et al., 1999).

When Isabella and Isabella (1994) looked at factors affecting duration of breastfeeding, they found that “mothers who reported the highest proportion of breastfeeding at nine months also reported higher levels of marital satisfaction and intimacy prenatally, as well as satisfaction with emotional support from male partner” (Isabella & Isabella, p. 262).

Maternal socio-economic status

Socio-economic status is a contributing factor to achieving breastfeeding success, with middle-class women experiencing higher breastfeeding rates than lower-income women. In Graffy's (1992) study, women reported cost savings as one of the reasons they chose to breastfeed (Graffy, p. 62). In research conducted by Guttman and Zimmerman (2000), both breastfeeding and formula feeding low-income mothers agreed that formula feeding had a “higher monetary cost” (Guttman & Zimmerman, p. 1465). Low-income populations tend to breastfeed at lower rates. Investigators found notable differences in the breastfeeding rates of different socioeconomic groups in industrialized countries (Guttman & Zimmerman, 2000).

Women in lower socioeconomic populations are less likely to breastfeed and, if breastfeeding is initiated, their duration rates are lower than other socioeconomic populations (Margolis & Schwartz, 2000). Low-income women also reported a perception that breastfeeding is easier for privileged women. While many low-income women indicated an awareness that breastfeeding is

better for their babies, they chose not to breastfeed (Guttman & Zimmerman, 2000).

Again, professional women breastfeed their infants longer than women in other types of positions (IOM, 1991, p. 39). In general, women who are in professional positions have more choices for child care and greater work schedule flexibility than do women who are in non-professional positions. In addition, women in professional positions are more likely to have access to an appropriate place for pumping at their worksites, as well as more time available to pump. Middle-class women also are more strongly affected by prenatal breastfeeding education than women of lower socioeconomic status (Black et al., 1990).

The effect of socioeconomic status on infant feeding decision differs among white and African American women. "Among black women, socioeconomic status as measured by mother's education was not a significant determinant of breastfeeding whereas socioeconomic status was a strong determinant of breastfeeding in the white population" (Ford & Labbok, 1990, p. 453). The relationship between breastfeeding and pre-pregnancy employment, enrolment in school and intention to return to work are reported inconsistently in research findings. However, most investigators agree that full-time employment and school enrolment are associated with decreased breastfeeding duration as the result of environmental barriers at both work and school (Spisak & Gross, 1991).

Similarly, studies that have identified socioeconomic status as a determinant of exclusive breastfeeding are as well inconsistent and appear to be tentative or relevant to the specific study areas; high socioeconomic status for

instance was found to be an enabling factor for exclusive breastfeeding in Ghana by Aidam et al. (2005) while the reverse was found from the Latin America study by Perez-Escamilla et al (1995). Additional research on the role of these less straight forward determinants will thus be useful.

Maternal and infant health history

Immediate maternal postpartum health needs may take precedence over breastfeeding support in terms of care planning in the postpartum unit and may ultimately affect milk supply if lactation consultation support is not provided (Hamilton-Solum, 2011). A review of lactation consultant practice from 1985 to 2005 found 227 related evidence-based publications on postpartum health problems (Wambach et al., 2005). The foremost maternal health challenge was found to be inadequate milk supply or the perception of insufficient milk supply. Sore nipples and breast engorgement were among the four most common postpartum health concerns (Wambach et al., 2005). In addition, maternal sleep deprivation, feelings of limited time for self, maternal sadness, and isolation were associated with breastfeeding cessation (Dennis, 2002).

Certain extreme maternal and infant health situations, such as maternal HIV or a critically ill and hospitalized infant or toddler on restricted feedings, may temporarily or permanently contraindicate exclusive breastfeeding. Such infant feeding situations are complex in management, with continually emerging evidence regarding best practice. The literature regarding HIV and lactation is inconclusive, with some recommendations for withholding breastfeeding in HIV-positive mothers (Labbock, 2001) and with conversely emerging literature that reported breastfeeding up to 3 months as having an

infant protective effect against acquiring the mother's HIV infection (Dennis, 2002).

Low birth weight is shown to be a significant predictor of early weaning or lack of breastfeeding initiation (Li et al., 2005; Ryan et al., 2002). Research evidence for the health benefits of human milk in comparison with commercial preterm formula feeding for the delicate premature physiology includes vastly improved gastrointestinal health, neurodevelopment benefits, and increased host defense through passive immunity (Wambach et al., 2005).

The association of low breastfeeding rates with low birth weight and/or prematurity when compared with the evidence-based human milk health benefits to the premature infant presents a striking health disparity. The premature or low-birth-weight infant also often requires tube feedings and/or supplementation of expressed breast milk, which in turn can affect the establishment of sufficient maternal milk supply. These situations often benefit from intensive lactation consultant support in order to assist the mother–infant dyad with a successful breastfeeding experience before, during, and/or after the mother's return to work (Wambach et al., 2005).

Maternal prescription medications may also present a dilemma to breastfeeding mothers, particularly those without consistent primary care providers and with inconsistent direction and support (Wambach et al., 2005). A majority of maternal prescription medications are considered safe to use during breastfeeding (Ahluwalia et al., 2005). A need for consistent, non-contradictory, or less confusing professional healthcare advice, as well as direction in medication use and all matters related to breastfeeding, has been

cited consistently in much of the literature (Ahluwalia et al., 2005; Dennis, 2002; Wambach et al., 2005).

To conclude, maternal and newborn health affects the breastfeeding experience and breastfeeding rates. Mother infant dyads with particularly challenging health situations require intensive expert lactation support. Well-trained lactation consultants provide consistent expert support in difficult situations; however, they may not be readily available during the postpartum period following hospital discharge. Separation of the mother and infant imposed by maternal employment outside of the home also affects the breastfeeding experience (Hamilton-Solum, 2011) and suggests the ongoing importance of postpartum lactation support.

Psychosocial factors

Psychosocial factors are aspects of support for or barriers to breastfeeding in the mother's immediate family network and workplace culture (Dennis, 2002; DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn, 2005; Kanotra et al., 2007). Psychosocial factors also include personal attributes such as self-confidence, as well as the mother's role, expectations, or satisfaction in breastfeeding while employed. Proximal psychosocial factors include the influence of peers', family members', and employers' opinions about exclusive breastfeeding and employment within the mother's close social networks (Cohen et al., 2002; Dennis, 2002; DiGirolamo et al., 2005; Dunn et al., 2004; Grassley & Eschiti, 2007; Hauck, 2000; Humphreys, Thompson, & Miner, 1998; Kanotra et al., 2007; Moore & Coty, 2006; Sikorski, Renfrew, Pindoria, & Wade, 2003). Cultural aspects of mothers' lives are also significant in their breastfeeding decision making and practice (Dodgson, Duckett,

Garwick, & Graham, 2002; Gill, Reifsneider, Mann, Villarreal, & Tinkle, 2004; McCarter-Spaulding, 2007).

Family and peer support

This section addresses social processes that the employed breastfeeding mother may encounter directly within her proximal or local social circle of influence. An experimental study of a breastfeeding program focused on fathers found that 69 percent of the program families' infants were still breastfeeding at 6 months and had an overall average of 8 months of breastfeeding for all infants in the program (Cohen et al., 2002). A majority of the mothers (65%) indicated that the father was a significant influence in breastfeeding decisions. Cohen et al. also suggested that the "mother's social framework is a stronger predictor of breastfeeding duration than [the] mother's demographics" (p. 61). In a study on predictors of continued breastfeeding, DiGirolamo et al. (2005) described the mother's social network, including the father, maternal grandmother, and close friends, as impacting maternal feeding choices. Dennis's (2002) extensive review of the North American literature from 1990 to 2000 found the mother's partner to be a strong influence in her breastfeeding initiation.

In their systematic review of breastfeeding support literature including 20 trials in 20 countries with a total of 23,712 mother–infant pairs, Sikorski et al., (2003) found a positive effect of extra support (professional or lay) on duration of breastfeeding. Professional support beyond standard local healthcare practices was found to have a strong effect on any breastfeeding continuation, and lay support had the greatest effect on duration of exclusive breastfeeding. The original studies were conducted in developed western

nations, but half of the later studies were done in developing nations, which limits the generalisability of the findings. Sikorski et al recommended that qualitative research was needed to further explore breastfeeding support strategies.

The effect of peer social contacts on breastfeeding intention was examined in a study of 1,001 low-income pregnant women, which found that the attitudes and beliefs of the mother's immediate social network had a stronger effect than did healthcare professionals' influence on her decision to breastfeed (Humphreys et al., 1998). This finding is consistent with Dennis's (2002) finding that continuation of breastfeeding was more common among women whose members of their social network supported their decision and/or had also breastfed. Dennis also reported the results of 10 studies of peer support (mother to mother) and found a significant association with breastfeeding duration up to 3 months postpartum particularly in mothers with socio-economic disparities.

In summary, the mother's family members' and friends' opinions, cultural practices, personal experiences, and/or knowledge about breastfeeding often play significant roles in affecting the mother's breastfeeding and employment experience. As illustrated by examples in the reviewed literature, the initial private personal process of breastfeeding at home incorporates some social or more public aspects of the breastfeeding process upon the mother's postpartum return to the workplace.

Workplace policy and culture

The mother's workplace is an important social setting that can influence her breastfeeding practices. In a literature review of 38 publications, Stewart-Glenn (2008) examined the knowledge, perceptions, and attitudes toward

breastfeeding among managers, co-workers, and employed mothers. Elements of a supportive workplace environment were also identified, including the workplace's organizational culture. Stewart-Glenn also cited evidence of covert breastfeeding discouragement in workplace culture, as well as fear of workplace discrimination by some breastfeeding mothers.

Calnen's (2007) literature review regarding paid maternity leave and impact on breastfeeding in the U.S. described multiple limitations of the current (unpaid) Family Medical Leave Act (FMLA) and compared this U.S. policy with that of 140 other nations that have paid maternity leave policies. Calnen found that the U.S. had considerably shorter paid maternity leaves than those in many western developed nations. This review, in the U.S. publication *Breastfeeding Medicine*, illustrates the incongruity between the current American workplace demands on the breastfeeding employed mother and the American Pediatrics Academy's recommendations for breastfeeding through 12 months of age. Calnen, a physician, called for increased activity in physician-driven advocacy efforts with regard to the American workplace and for parental leave policies in support of employed breastfeeding women.

Maternity leave as a broader issue of global and national policy, although closely related to exclusive breastfeeding and employment, is largely beyond the control of the mother. The Ghanaian situation, for instance, where the maternity leave of three months (Ghana Labour Act, 2003) requires mothers to return to work after three months post partum has serious implications for exclusive breastfeeding of six months. It may, however, influence the exclusive breastfeeding mother's decisions about breastfeeding, and therefore it is

mentioned here. However, it is beyond the intent of this chapter and study to address the extensive literature on maternity leave policy.

In summary, workplace policy and local attitudes toward combining exclusive breastfeeding and employment may influence the mother's decisions about breastfeeding as well as breastfeeding rates (Calnen, 2007; Dunn et al., 2004; Stewart-Glenn, 2008). In times of economic uncertainty, mothers may be forced to weigh the risks of potential workplace retribution for breast milk pumping time against maintaining employment or facing unemployment. Consideration of such maternal concerns regarding exclusive breastfeeding and employment, which may be beyond an individual mother's control, is important. Yet research focus on such maternal concerns is lacking in the current empirical literature.

Maternal confidence, self-efficacy, and dispositional outlook.

A two-part Australian study (O'Brien et al., 2008) identified seven major psychological influences on mothers' breastfeeding initiation and duration. The authors also noted that breastfeeding duration was significantly correlated with maternal self-efficacy. Maternal confidence and maternal belief in the infant's feeding method preference were the two factors most closely associated with duration of breastfeeding in a longitudinal study of 64 low-income, primarily ethnic minority mothers in the Northeastern U.S. (Ertem et al., 2001). Also, accurate breastfeeding knowledge about breastfeeding maintenance was reported by only 30 percent of the participants. Finally, 77.4 percent of the women in the study discontinued breastfeeding before their infants were 2 months old.

Dennis (2002) concluded that perceived difficulties with breastfeeding were significantly associated with early weaning, lack of social support from family and peers, and low maternal confidence levels or self-efficacy. Similarly, Schlickau and Wilson's (2005) review of 25 studies of health promotion breastfeeding behaviours in Hispanic mothers found that self-efficacy was significantly associated with breastfeeding initiation and duration in 7 of the 25 studies.

A positive maternal attitude sometimes referred to as *dispositional outlook* was found by Ahluwalia et al. (2005) to be related to breastfeeding initiation and duration. Women in their study were more likely to breastfeed for at least 4 weeks if they were determined to have a positive disposition towards breastfeeding. Similarly, Dennis (2002) found evidence of greater breastfeeding initiation and success rates in mothers with positive outlooks as opposed to mothers with negative, anxious perspectives.

In summary, personal maternal psychosocial factors such as self-efficacy and positive or negative dispositional outlooks have been shown to be associated with duration of breastfeeding. It is a logical assumption, then, that one should examine similar potential associations with the process of combining employment with breastfeeding.

Role satisfaction/expectations

A secondary analysis of a larger study of postpartum employed mothers utilized the McCubbin theoretical resiliency model of family stress, adjustment, and adaptation to explore the self-reported experiences of 74 employed American women working within 12 months postpartum (Nichols & Roux, 2004). The findings were divided into categories of resiliency building (positive

aspects) and resiliency challenges (negative aspects) as outcomes of postpartum employment. Maternal role satisfaction, positive adaptation, social support, and career role satisfaction were found to be resiliency building, and role conflict/overload, family stress, family child issues, finances, and psychological issues were identified as resiliency challenges.

According to Nichols and Roux (2004), over two thirds of the participants reported difficulty in combining multiple roles. They also reported twice as many resiliency challenges in contrast to resilience building factors. The psychosocial issues included fatigue, feeling depressed, and a desire to breastfeed longer. The study's limitations included limited demographic diversity, including higher than average SES and education level in the sample. However, given the overall abundance of resources in this sample, the preponderance of resiliency challenges is interesting. This finding warrants more heterogeneity in sample characteristics in further research of this nature.

Cardenas and Major (2005) examined the mother's attempts to balance the roles of employee and breastfeeding mother within the conceptual framework of a work-family conflict. This review showed evidence of considerable conflicts, which Cardenas and Major divided into categories of time-based, strain-based, and behaviour-based conflict areas. Time-based conflicts involved postpartum timing of returning to employment, time to pump milk during the workday, and time present at work, as well as family and childcare time. Behaviour-based conflicts included similar time-based conflicts, but these were cantered within workplace structure and policy; behaviour-based conflicts also included mothers' ratings of the conflicts as major or minor.

Strain-based conflicts were focused on stress and anxiety in relation to incompatible role expectations in the breastfeeding mothers' work and/or family roles. Cardenas and Major suggested future research on the specific role challenges that working and breastfeeding mothers encounter in order to design appropriate intervention and support. Stewart-Glenn (2008) reviewed literature that also addressed the concept of role in the employed and breastfeeding mother. Role overload difficulties, commitment, and maternal guilt were the most common factors cited in this review. Role overload was translated as balancing the roles of good mother and good employee while breastfeeding and employed (p. 426).

In summary, balancing multiple roles is challenging for the mother who breastfeeds while she is employed. The degree of difficulty in balancing multiple maternal roles and subsequent health outcomes seems also to be associated with the amount of available support and resiliency within both the individual mother and her immediate support system at home and in the workplace.

Maternal stress and anxiety

In a single publication, Mezzacappa and Katkin (2002) reported the results of two stress response studies related to lactation. They utilized three psychological scales—cognitive and perceptual changes in motherhood; the perceived stress scale; and the state–trait personality inventory—to compare stress response in two separate groups of bottle-feeding and breastfeeding mothers over a period of 1 month. The breastfeeding mothers reported significantly less stress than did the bottle (formula) feeders. The first study controlled for maternal age, parity, work status, and time postpartum.

The second study in Mezzacappa and Katkin (2002) showed similar results, in that breastfeeding mothers reported less perceived stress than did bottle-feeding mothers. Data were collected during the prenatal and postpartum periods, and the study controlled for personality state–trait anxiety, anger, and curiosity. Results were consistent with other findings of buffered stress response in lactating mothers attributed to physiological neuroendocrine effects and distinct from individual personality differences (Groer et al., 2002; Heinrichs et al., 2002; Labbock, 2001). Mezzacappa and Katkin recommended further research regarding the neuroendocrine and psychosocial aspects of maternal stress response.

O'Brien et al. (2008) found a significant relationship between maternal anxiety and breastfeeding duration. Psychological variables were measured with standardized scales at two points during the first 14 days postpartum in a sample of 345 women. Anxiety was reported in 21.8 percent of the women and found to be a significant predictor of early weaning behaviour. A review of the breastfeeding and work literature by Hauck (2000) showed that earlier postpartum returns to work were associated with earlier weaning. The stress literature described maternal antidepressant effects of oxytocin during lactation contrasted with a higher level of anxiety during weaning (Groer et al., 2002; Heinrichs et al., 2002; Labbock, 2001; Mezzacappa & Katkin, 2002).

In summary, maternal anxiety may be associated with early weaning, but there is also evidence of depressive effects during weaning, particularly upon return to work. Lactation and weaning also appear to be associated with some complex, or at least currently unclear, endocrine activity in some research (Groer et al., 2002; Heinrichs et al., 2002; Labbock, 2001, Mezzacappa &

Katkin, 2002). Definitive multidisciplinary research examining relationships between lactation or weaning and anxiety, stress, or depression among postpartum mothers who return to work was not found in this review.

To conclude, the studies above describe evidence of multiple psychosocial issues related to breastfeeding while employed, and illustrate the multifaceted nature of this experience. Mothers observed in this research were strongly influenced in their decisions by their immediate or proximal circle of friends, family, and co-workers. In addition, the mothers' decisions were affected by personal psychological aspects of their behaviour, such as their levels of confidence in their ability to continue breastfeeding while working, as well as their perceptions and dispositional outlook. A combination of negative dispositional maternal outlook with maternal perceptions of stress and anxiety was often associated with weaning. Balancing expectations and the multiple roles of mother and employee was a challenge for the mothers in several of these research studies. The demographic homogeneity of many of the samples, however, limits the generalisability of the findings.

Gaps in the psychosocial literature comprise the absence of demographic diversity in samples, as well as of stress and anxiety studies specifically related to breastfeeding of mothers employed outside of the home. There is also an absence of qualitative research conducted in Ghana to examine the mothers' perceptions of the influence of psychosocial factors on breastfeeding while employed.

Resource availability

Resource availability includes intangible or physical aspects of support to the breastfeeding and employed mother such as breastfeeding education and

workplace pumping space, time, and equipment (Britton et al., 2007; Dennis, 2002; Kanotra et al., 2007; Wambach et al., 2005). Resource availability in support of breastfeeding mothers who return to work begins with education in the prenatal and early postpartum period. A review of prenatal and postpartum interventions to support extended breastfeeding duration by Couto de Oliveira et al. (2001) excluded interventions in the immediate postpartum period. The most effective interventions during the postpartum period were home visits and individual education sessions that included problem solving related to mothers' stated needs and that involved family members. Group education was effective only in the prenatal period.

In their systematic review, Sikorski et al., (2003) found that supportive interventions were most effective at 2 months postpartum, particularly those using personal visits as opposed to telephone calls. Dennis (2002) also found positive influences on breastfeeding duration from postpartum telephone support via lay peer support in an examination of 10 studies. In addition, Dennis found positive results from prenatal classes and early postpartum education, which were reported to be helpful to breastfeeding mothers.

Recommendations for successful breastfeeding while employed include prenatal education, needs assessment, adequate diet, relaxation and rest, milk expression, leakage and storage guidelines, supplementation, direct breast feeding schedules, day care, and social support suggestions (Cardenas & Major, 2005; Hauck, 2000; Nichols & Roux, 2004; Wyatt, 2002).

A study found corporate lactation programs to have positive results with support of breast milk expression in the workplace (Cohen et al., 2002). These program evaluation studies were limited by an absence of control groups,

potential bias because the employer conducted the studies, and homogeneity of the samples, which were mostly White, older, educated, and middle class. Greater use of occupational health nurses in the workplace was also suggested in the maternal support literature, although it was rarely available at places of employment (Abdulwadud & Snow, 2007; Wyatt, 2002).

Pettis and Miller's (2007) program evaluation concluded that recent educational breastfeeding campaigns in the media were ineffective; they attributed this to extreme informational messages delivered by healthcare professionals instead of actual breastfeeding mothers. Pettis and Miller, who are social psychologists, recommended science-based programs and research with actual mothers engaged in breastfeeding and employment in order to gain "fundamental insight" into maternal expectations and perceptions that would aid development of appropriate policy (p. 45). Research data often serve to drive policy, particularly in situations lacking policy, which may be argued with respect to the current study.

Many researchers have discussed the use of healthcare professionals to support breastfeeding mothers, but empirical evidence for effective intervention design is lacking. Wright's (2001) review of the U.S. literature found no evidence that postpartum healthcare providers provided increased support for breastfeeding. Dennis (2002) presented a summary of studies in which the majority of nurses were reported as lacking adequate breastfeeding knowledge and/or the clinical time or interest in support of breastfeeding. A mixed method study of breastfeeding education in paediatric primary care settings described inconsistent and unsupportive information sharing from healthcare professionals to mothers (Dillaway & Douma 2004). Gill et al. (2007)

conducted a quasi-experimental design study with 182 low-income urban U.S. Hispanic women comparing prenatal breastfeeding education with postpartum follow-up breastfeeding support. Prenatal education was found to be predictive of breastfeeding initiation. However, postpartum telephone and home visit support were significantly associated with breastfeeding continuation.

A systematic review by Clifford and McIntyre (2008) of 152 publications identified key breastfeeding support personnel as family, peers, employers, healthcare professionals, and particularly midwives and nurses. "Conflicting advice from health care providers was a common complaint" (p. 12) among mothers in this review. Breastfeeding knowledge, attitudes, and experience were reported as critical to supportive nursing care, and healthcare professional workplace support was also recommended.

A workplace breastfeeding support questionnaire was developed by Bai et al. (2008) and tested in a sample of 66 Midwestern U.S. breastfeeding and employed mothers. The items included four groups of support factors: technical support (e.g., refrigerator and work breaks); environmental support (e.g., supportive supervisor); facility support (e.g., on-site day care or breast pump); and peer support (e.g., coworker attitudes/opinions). The tool was used by healthcare personnel preparing breastfeeding mothers for return to work. Conclusions include recommendations for consistent breastfeeding education of healthcare providers and employers, as well as further empirical research.

In summary, breastfeeding mothers' access to consistent, accurate, available, and supportive resources is critical to the return-to-work experience reported in this body of literature. The literature illustrates a discrepancy

between support for the initiation of breastfeeding in mothers and support for breastfeeding in new mothers who return to work.



CHAPTER THREE

THEORETICAL REVIEW OF EXCLUSIVE BREASTFEEDING AND MATERNAL EMPLOYMENT

Introduction

Scientists, and for that matter social scientists have theoretical perspectives; ways of viewing their phenomena of interest. Schutt (1999) sees theory as a logically interrelated set of propositions about empirical reality. According to Simon (1996) theory also gives us a language to talk and communicate about a phenomenon. The current study on exclusive breastfeeding among employed mothers lends itself to a variety of theoretical explanations way beyond the field of sociology. For instance, clinicians, public health, nutritionists, anthropologists and others have been attempting to increase exclusive breastfeeding rates for the last few decades, with varying degrees of success (Cattaneo et al., 2010), each drawing on distinct theoretical and practical traditions.

In conceptualizing this study, several other theories commonly used in infant feeding research were considered. Some of these theories have been reviewed, though not formally adopted. This is because elements of each are recognisable in the selected sociological theoretical approaches. The theories reviewed are Health Belief Model (HBM), Social Construction Theory (SCT), Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB), the Bio-cultural Perspective and the Ecological Model. The reviews of these theories provide the bases for adopting sociological theories for the study.

Health Belief Model

The health belief model was developed over fifty years ago by social psychologist trying to understand lack of participation by individuals in a free tuberculosis screening program. Currently, the health belief model is the most frequently used theory in health education, health promotion and disease prevention (Champion & Skinner, 2008; Jones & Bartlett, 2010). The health belief model has been modified in various ways over time but the original model contains four psychological variables. The concept of perceived susceptibility is a person's own belief of the likelihood of getting a condition. Perceived severity is the individual's opinion of the graveness of the condition and its sequel. One's thoughts concerning the effectiveness of the recommended action to actually avoid or reduce the seriousness of the condition are termed perceived benefits. Perceived barriers are the negative aspects of a specific health action (Bartholomew, Parcel, Kok, & Gottlieb, 2006). Additionally, a cue to action serves as the catalyst for the decision making process.

A main construct is the threat of disease, which is composed of perceived severity of and perceived susceptibility to the disease. While new research is reframing the infant feeding practice as a risk of formula-feeding versus a benefit of breastfeeding, the concept is not yet widely adopted. Applying Health Belief Model to exclusive breastfeeding is problematic due to the motivators women have for breastfeeding – including maternal-infant bonding (MacGregor & Hughes, 2010) – that are unrelated to the main construct: threat of disease. Barriers and benefits are additional constructs that can serve to motivate or deter the desired action. This construct, as well as cues to action and self-efficacy, may be valuable in the study of infant feeding.

Social Cognitive Theory

The social cognitive theory developed by Albert Bandura is acclaimed as one of the forerunners for explaining behaviour (Bandura, 1986). It describes human behaviour as a product of the individual, behavioural and environmental influences.

Social cognitive theory contends that people acquire and maintain certain behavioural patterns, while simultaneously providing the basis for intervention strategies. Meaning, people choose to apply or disregard existing information as new behaviours are learned. Bandura emphasizes the importance of observational learning for development with the use of models in the individual's environment (Bandura, 1977).

Relating these ideas to the practice of exclusive breastfeeding, a mother learns feeding behaviour from her environment which includes examples from her mother, her trusted peers and friends, her paediatrician, and in many cases, media sources like television, and the internet. These are potential sources of influence for the nursing mother as far as exclusive breastfeeding is concerned and the practice exhibited is determined by which of the forces have an upper hand.

Another critical aspect of the social cognitive theory which is very relevant in understanding exclusive breastfeeding behaviour is the concept of self-efficacy. Bandura used the term self-efficacy to refer to a person's belief that he or she can successfully carry "courses of action required to deal with prospective situations containing many ambiguous, unpredictable, and often stressful elements" (Bandura & Schunk, 1981, p.587). Therefore, self-efficacy is a person's belief that they have behavioural competence in a particular

situation. There are four main ways in which self-efficacy is acquired. First, performance accomplishments, which include past experiences of success and failure in attempts to accomplish goals in life (Pervin & John, 2001). These experiences are the most important regulators of self-efficacy. In exclusive breastfeeding terms, previous experiences of the practice could influence the mother's competence to either breastfeed or formula-feed.

Secondly self-efficacy is acquired through observance of vicarious experience. When individuals witness others' successes and failures, they are provided with information which they can use as a basis for comparison for their own personal competence in similar situations. As such mothers who have seen others succeed in exclusively breastfeeding their babies and the impact on such babies will be influenced to adopt similar feeding habits when feeding their babies.

Another way self-efficacy can be acquired is through verbal persuasion. Being told by others that one can or cannot competently perform a particular behaviour can lead to increases or decreases in self-efficacy. Thus a mother's exclusive breastfeeding self-efficacy can be lowered if others verbally discourage her from breastfeeding. It must be noted that significant others are the most influential in the process of behavioural changes.

Lastly, self-efficacy can be acquired through emotional arousal. Levels of self-efficacy are also proposed to be influenced by the degree and quality of the emotional arousal an individual experiences when engaging in a particular behaviour in a specific situation (Pervin & John, 2001). When mothers get emotional satisfaction from exclusive breastfeeding, their self-efficacy to breastfeed will be boosted.

In order to understand societal breastfeeding trends, it is important to begin with looking at the possible reasons that affect the mother's choice on how to feed her child. The mother's choice is directly influenced by her opportunity to breastfeed exclusively, which includes her material conditions that might facilitate or interfere with the breastfeeding process, as well as her motivation to breastfeed such as her ideological conditions that reflect her attitudes, beliefs, and previous knowledge of breastfeeding and its alternatives.

Theory of Reasoned Action

The theory of reasoned action suggests that behaviour is determined by the individual's intention to perform the behaviour. Intention to perform the behaviour develops due to the person's personal attitude toward the chosen behaviour (exclusive breastfeeding), her belief in her ability to perform the behaviour, and the perceived attitudes of society (normative) toward that chosen behaviour (Ajzen & Fishbein, 1980). Positive maternal attitudes as well as increased maternal knowledge about exclusive breastfeeding enhance both the initiation and duration of breastfeeding (Bailey, Clark, & Shepherd, 2008; Jacknowitz, 2007; Ladomenou, Kafatos, & Galanakis, 2007).

Women state explicit support from their partners and other family members promotes their decision to breastfeed and encourages longer duration (Bishop, Cousins, Casson, & Moore, 2008; Grassley & Eschiti, 2008; Jacknowitz, 2007). Women need support from family members, friends, and society, as well as correct education, to help them feel empowered to feed their babies breast milk exclusively (Munoz-Silva, Sanchez-Garcia, Nunes, & Martins, 2007). It is essential that exclusive breastfeeding be seen as the societal

norm to provide an encouraging environment for more women to choose to engage in the practice. Thus the woman's attitude towards exclusive breastfeeding, the attitudes of her support group, her perceived positive cooperation of society, and her belief in her own ability to exclusively breastfeed produce the woman's intent to exclusively breastfeed (Shaker, Scott, & Reid, 2004).

Theory of Planned Behaviour

The theory of planned behaviour (Ajzen, 1991) is a well-validated behavioural decision-making model, widely employed to examine the psychosocial influences on behaviour. The TPB proposes the most proximal determinant of behavioural outcomes is intention to perform a given behaviour which is, in turn, predicted by three belief-based constructs: attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). Attitudes are the positive or negative evaluations by an individual about the consequences of performing a particular behaviour. Subjective norms refer to the perceived pressure from important others to perform or not to perform an action. Perceived behavioural control, which is similar to the concept of self-efficacy, refers to one's perceived ease of performing a given behaviour and is also proposed to influence behaviour directly.

The TPB has been used to examine a wide range of behaviours, including nutritional and dietary practices (e.g., Blanchard et al., 2009; Verbeke & Vackier, 2005). Meanwhile, few studies have applied the TPB to examine exclusive breastfeeding (Hamilton et al., 2011). McMillan et al. (2008) use the TPB to investigate breastfeeding uptake in primiparas ($N=248$) experiencing

material hardship. Consistent with the specifications of the TPB, attitudes, subjective norm, and perceived behavioural control were all significant predictors of mothers' intentions to breastfeed (explaining 56% of the variance after controlling for age, ethnicity, education, and deprivation), with intention and perceived behavioural control predicting breastfeeding behaviour 6-weeks later (explaining 44% of the variance after controlling for age, ethnicity, education, and deprivation). Other researchers (e.g., Khoury, Moazzem, Jarjoura, Carothers, & Hinton, 2005; Swanson & Power, 2005) have found attitudes and subjective norms, but not perceived behavioural control, to predict breastfeeding initiation and continuation.

In Avery et al.'s (1998) study applying TPB to infant feeding, perceived behavioural control explained 25 percent of the variance in intention, and attitude toward breastfeeding and bottle-feeding explained 5.8 percent and 4.5 percent of the variance, respectively. This is consistent with findings in another study where the authors applied TPB to develop a tool to predict early breastfeeding attrition (Dick et al., 2002). The final tool included measures of breastfeeding attitudes (positive and negative), subjective norms, and perceived behavioural control. Of note is that both studies dropped the subjective norms construct, although another study of 236 women indicated that this construct may be an important predictor of intention among African American women (Bai, Wunderlich & Fly, 2011); in contrast, the major predictor of intention was attitude among White mothers and perceived behavioural control for Latina mothers.

While the TPB offers a framework for understanding infant feeding behaviours, the disconnect between intended and actual breastfeeding duration

among women who wean their infants early begs the question: Why is it that so many women seem to have low volitional control over duration of breastfeeding? What external factors may influence this? Ajzen (1991) supports the inclusion of additional predictors to the model to improve its prediction of people's intentions and/or behaviour. Increasingly, researchers have recognized the importance of normative influences from relevant referent social groups and have included an assessment of group norms in the model (see e.g., Hamilton & White, 2008; White, Smith, Terry, Greenslade, & McKimmie, 2009).

Given the popularity of both formal and informal mothers' support groups (Campbell et al., 2008), social influences and contexts might be especially salient for mothers practicing exclusive breastfeeding. Several studies have identified family and friends as a key influence on infant feeding practices (see Alder et al., 2007; Crocetti, Dudas, & Krugman, 2004; Horodyski et al., 2007; Olson, Horodyski, Brophy-Herb, & Iwanski, 2008). Thus, the current study takes this into consideration in selecting theoretical models for the study.

Bio-cultural Perspective

This model comes from anthropology, the social science which studies the relationship between biology and culture. This perspective sees breastfeeding as inherently bio-cultural; it is an evolved human biological process and a behaviour that is culturally determined and shaped (Stuart-Macadam, 1995). The study of breastfeeding necessarily entails an understanding of the human body's relation to societal forces, which is the strength of a bio-cultural medical anthropology perspective.

As mentioned earlier on, this perspective takes into account the evolutionary, biological, social, cross-cultural, political, historical, and ecological aspects of health issues. It considers that “human bodies do not exist in isolation from their ecological and socio-cultural milieu, which in turn has been shaped by various historical processes” (Wiley & Allen, 2009, p6). With the use of a bio-cultural perspective, we can understand exclusive breastfeeding within these multiple contexts. These contexts interact to create particular breastfeeding experiences.

According to Stuart-Macadam (1995), almost all human infants have obtained their main nutrition through breastfeeding throughout history and as mammals we have an evolutionary history of lactation that is even more ancient. She contends that, any change to this age-old pattern can have profound implications for the physiology, growth and development and health of human infants and children as well as for the physiology and health of women.

Recent changes have occurred as a result of a loss of community networks and breastfeeding role models and a greater reliance on the medical profession and hospitals to receive advice and make health decisions. While in the past, women would turn to family members and community networks for help with breastfeeding, authoritative knowledge now rests in the hands of medical professionals and hospitals.

In general, breastfeeding literature has not approached lactation from a holistic bio-cultural perspective, with much of the literature focusing on either cultural aspects or biological aspects (Stuart-Macadam, 1995). Cultural perspectives that focus solely on beliefs and behaviour ignore the manner in which mothers and their infants are biologically linked. However, the view that

breastfeeding is solely biological, as clinical biomedicine understands it, “privileges the body as the only relevant environment” and “individuals are perceived as uniquely responsible for their health” (Wiley & Allen, 2009, p7).

The bio-cultural perspective challenges this biological reductionist point of view and examines the medicalisation of breastfeeding and the socio-cultural factors that affect the practice.

In breastfeeding, biology and social context are “inextricably related, and an alteration in behaviour can have a reciprocal effect on biology” (Stuart-Macadam, 1995, p7). Behaviour affects biology when, for instance, the society shifts to perceiving breasts as sexual objects and babies are bottle-fed instead of being breastfed; or when babies in some societies are denied colostrum with all its beneficial properties (being high in antibodies and protein) because it is believed to be dirty or poisonous (Stuart-Macadam, 1995, p9).

Further, breastfeeding is a complex process that interacts not only with biology and culture, but that is also affected by environmental and political conditions (Van Esterik, 2002). As Rudzik (2012) writes, “A woman’s biological systems provide the capacity for exclusive breastfeeding, her structural and cultural milieu often define the parameters for decisions about infant feeding, and her individual experience shapes her own breastfeeding practice” (p108). The decisions that she makes are intertwined with structural factors such as poverty and inequality. The bio-cultural perspective in medical anthropology increasingly incorporates the concept of political economy, which examines power and socioeconomic status and their impact on health.

Furthermore, a bio-cultural approach addresses the concept of embodiment: the idea that the body is both physical and social, and the social

impacts the physical body. This concept can help us overcome the dominant biomedical view that the lactating body is separate from its social, historical, political and environmental context. Thus, it is useful to use a bio-cultural framework to examine exclusive breastfeeding.

Ecological Model

McLeroy's ecological model of health behaviour identifies five levels of influence on behaviour: intrapersonal factors, interpersonal processes and primary groups, institutional factors, community factors, and public policy (McLeroy, Bibeau, Steckler & Glanz, 1988). McLeroy's theory supports interaction between the levels: For example, marketing of formula (institutional factor) may influence a father's favourable attitude toward the mother's use of formula (interpersonal factor). The theory also highlights the limited control a mother can have over her behaviour when institutional factors, such as work and hospital policies, do not support individual decisions.

Perez-Escamilla (2012) calls for the application of the social-ecological model in formative research on different population groups so as to influence "key forces" – family and friends, healthcare providers, employers, formula industry, and legislators. The present study incorporates barriers and facilitators at each level of the ecological model, from intrapersonal to community factors, so as to help identify modifiable key forces that may be effective in promoting exclusive breastfeeding especially among employed mothers. Assessment of mothers' awareness of legislation affecting infant feeding and maternity leave (public policy) was also a focus of this study.

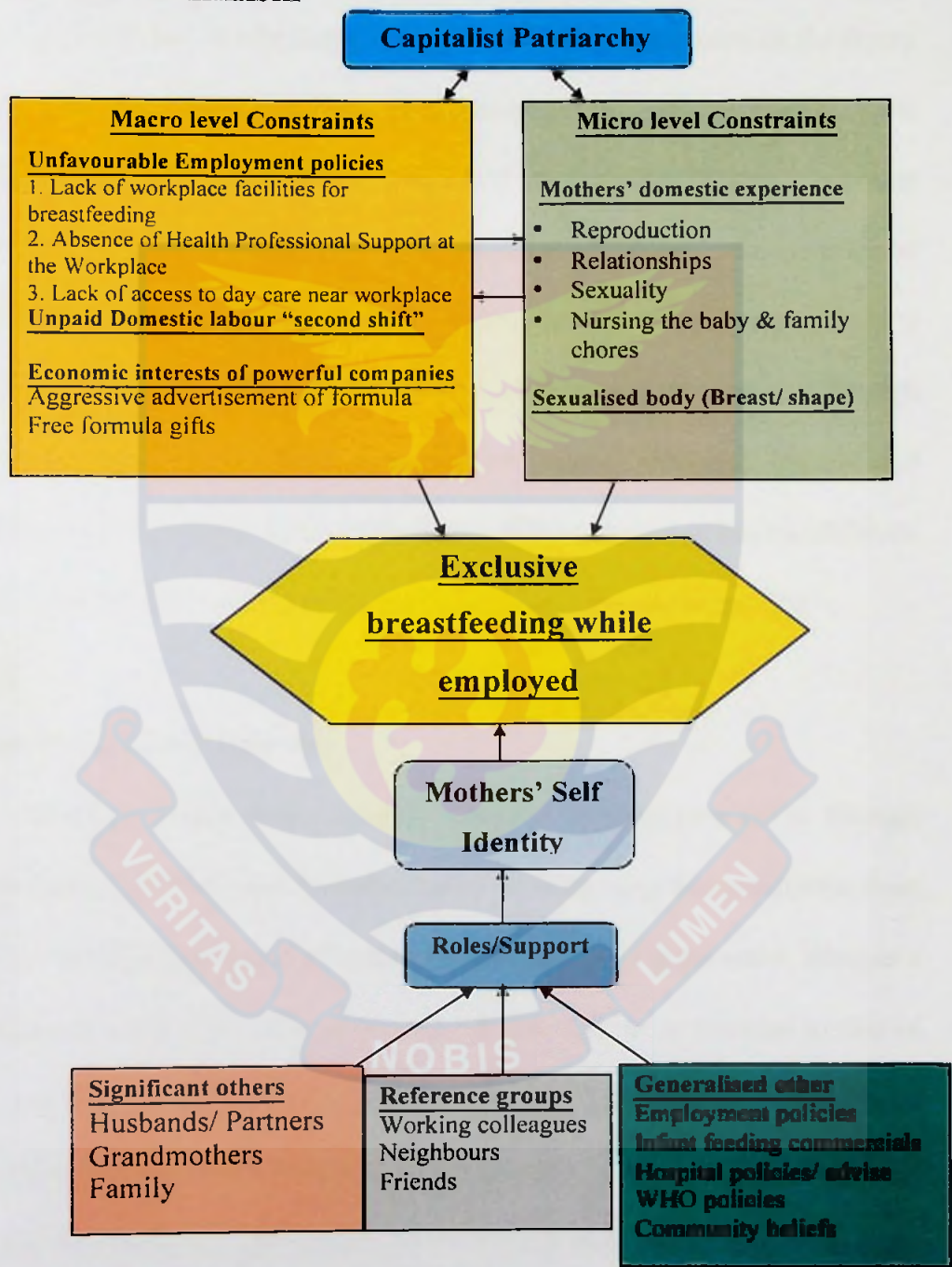
The above theories reviewed offer some useful insights into exclusive breastfeeding practice. These have therefore been widely used by various disciplines other than sociology. According to Sheehan and colleagues (2009), such disciplines apply traditional decision-making theories, such as the Theory of Planned Behaviour and the Theory of Reasoned Action to predict breastfeeding outcomes, but these theories have been used with limited benefit. This is because most of such works frequently have an explicitly applied focus aimed at increasing breastfeeding rates, the benefits of breastfeeding over formula feeding or achieving compliance around complementary feeding. However, infant feeding and for that matter exclusive breastfeeding is a complex process shaped by social and cultural forces interacting with local environmental and political conditions (Sika-Bright, 2010).

The cardinal aim of this dissertation is to situate the phenomenon under study in a sociological context. This section of the chapter, therefore, looks at sociological theories that provide useful insights into exclusive breastfeeding and maternal employment. Two theories are chosen to serve as the lenses for the study; these are socialist feminism and symbolic interactionism. Socialist feminism is chosen because of its efficacy in helping to identify what may explain aspects of infant feeding behaviours at both macro and micro social levels. Symbolic interaction is also selected because it describes how humans perceive, choose lines of action, and make sense of their social worlds.

Socialist feminism is a useful avenue for considering the social and institutional structures (and in this context the employment structures) that shape, mould, and influence the choices that women have in their lives. Moreover, symbolic interactionism can also serve as useful lens for

understanding the inner processes of choice and meaning making in an interactive social arena.

Socialist Feminism



Symbolic Interaction

Figure 2: A Conceptual Framework synthesised from Socialist Feminism and Symbolic Interaction to understand Exclusive Breastfeeding of employed mothers

Source: Adapted from Eisenstein (1979) and Mead (1934)

The discussion is aided by a conceptual framework (Figure 2) based on the constructs of both socialist feminism and symbolic interaction perspectives. This was developed as a heuristic device to guide the application of the theory to the study. The framework from both theoretical viewpoints examines what influences employed mothers to breastfeed exclusively. Whereas socialist feminism looks at capitalist patriarchy focusing on macro and micro level implications for employed mothers; symbolic interaction explains how employed mothers create and sustain their exclusive breastfeeding self through the influence of the “others” (generalised others, reference groups and significant others). Presentation of the tenets of the two chosen theories follows. Application of both theories to the phenomena under study is detailed.

Socialist Feminist Perspective

Socialist feminism is a specific aspect of feminist perspective through which the study is looked at. Socialist feminism brings together materialist class analyses and feminist social protest to explain women's *oppression*. Women's situations in society are seen as not only different from or unequal to that of men, but also they are viewed as actively restrained and subordinated to that of men (Lengermann & Niebrugge-Brantley, 2000). While socialist feminism borrows from Marxism, the theory moves further than Marxism to look at the subjectively experienced micro realities to fully explain women's oppression. Hartmann (1979) identified an “unhappy marriage between Marxism and feminism”. Marxists' basic analysis of oppression in the class relations of capitalism turns patriarchy into a function of economic relations.

Socialist feminism makes a more radical argument holding that although patriarchy influences economic conditions, patriarchy is an independent structure of oppression (Lengermann & Neibrugge-Brantley, 2000). Socialist feminism coins the term *capitalist patriarchy* to describe more appropriately, the dual structural oppressions operating in the lives of women (Eisenstein, 1979). The labour of women as mothers within the home is almost always invisible in Marxist analyses. Within capitalism, domestic and reproductive labour is given no exchange value and not regulated through market mechanisms (Smith & Ingham, 2005).

Therefore, it does not appear to form part of the capitalist mode of production. Socialist feminism argues that the economically invisible labour of women subsidizes the economy by disguising real costs. On the other hand, socialist feminist analysis identifies that, women as primary consumers of goods and services for the household become a major source of capitalist profit (Hennessey & Ingraham, 1997).

These insights are applicable to potential exclusive breastfeeding barriers. Breastfeeding is a form of domestic labour that costs mothers' time and energy without producing income. Particularly for low-income mothers who are often overwhelmingly worked out, exclusive breastfeeding may be perceived as an inconvenience and too costly a choice (Hausman, 2003). The infant feeding choices available to women are to formula feed, breastfeed exclusively, or offer the infant a combination of formula and breast milk. As such, mothers who do not breastfeed because of work-related constraints must buy formula, representing a large, sought after, capitalist market (Tamaro, 1998).

The intensive formula marketing that mothers are exposed to is another influence on infant feeding, in that it serves as a barrier to exclusive breastfeeding. Some breastfeeding advocates feel that inappropriate marketing of formula is one of the biggest barriers to exclusive breastfeeding (Bentley, Dee, & Jensen, 2003; Newman & Pittman, 2000). A randomized, controlled study of the impact of formula advertising in doctors' offices found that prenatal exposure to such marketing significantly increased early termination of breastfeeding (Howard, et al, 2000).

Exclusive breastfeeding in a capitalist patriarchy has other far-reaching macro level economic and political implications. The baby formula industry has been estimated to generate between 5 and 6 billion in profits annually (Tamaro, 1998). These powerful companies have an economic interest in continued low breastfeeding rates. Tension characterizes the relationship between the formula companies and breastfeeding advocates. The multinational Nestle Corporation was subjected to boycott of their products in the late seventies and eighties due to marketing of baby formula in developing countries. In response, the World Health Assembly passed an international code of marketing breast milk substitutes in 1981 (Esterik, 1989).

After wrangling over code details, a proposal to include health warning labels similar to surgeon general's warnings on cigarettes was defeated (Coburn, 2001). Strict advertising restrictions and prohibition of free samples to mothers were included (WHO/UNICEF, 1981). However, without a way to effectively sanction the companies for violations, the code turned out to be unfunctional (Coburn, 2001). Widespread direct marketing of formula to mothers continues. A mother who purchases breast pads for leaking breasts may

even find coupons for formula in the box (Coburn, 2001). The above example illustrates the power of the capitalist profit motive in influencing mothers' infant feeding choices. Even a well-meaning intent to feed your infant breast milk exclusively may be undermined by such tactics.

As it has been happening in developed countries and now in urban hospitals of most developing nations, most women who deliver their babies in hospitals receive gift packs of diaper bags and baby paraphernalia including free formula samples provided by formula producers. The United Nations Baby-Friendly Hospital Initiative certifies hospitals world-wide for implementing the ten Baby-Friendly steps within their institutions that are supportive rather than undermining of breastfeeding. Formula companies do continue to advocate for their financial interests to weaken strong breastfeeding recommendations from the World Health Organization (Esterik, 1989).

Sociologist and socialist feminist theorist, Dorothy Smith (1986) wrote that social science "obfuscates rather than clarifies" when explanation remains at a macro-structural level without recognizing the everyday lived experiences of life. The everyday is intertwined with the structures that produce economic goods. Socialist feminism is concerned with women's experience of domesticity, reproduction, relationships, and sexuality. Subjective human factors are as important as economic structures in determining oppression. The popular culture feminist adage "the personal is political" captures the essence of this point. From a socialist feminist perspective societal structures including economy, politics, ideology, and religion interact with the intimate private domains to maintain the multifaceted oppressive system of capitalist patriarchy.

Infant feeding is tied intimately to micro structures of daily life including: the human body, its sexuality and involvement in childbearing; home maintenance, with its unpaid, invisible domestic tasks; and emotional sustenance of self and others (Lengermann & Neibrugge-Brantley, 2000). These life-sustaining activities are often organized unequally, and very often are shouldered more by women than men. Gender specific roles and an ideology of woman's place in the home tend to maintain patriarchal interests. Abramovitz (1988) identifies the assignment of homemaking and childcare responsibility to women as the "lynchpin of the family ethic" (p. 37). She maintains that this division of labour has remained reasonably stable over time.

Socialist feminism encourages a value of equity in family roles. Whether infant feeding is part of the exploitation of women within the family, is influenced by multiple subtleties in the balance of power within particular relationships. Often, more domestic work needs to be done by a partner of a nursing woman because mostly the mother is the only one who can sit down to nurse the crying baby. In partnerships with traditional male-female divisions of labour where little domestic household labour is shared, a nursing woman may easily be overwhelmed (Sullivan, Leathers, & Kelley, 2004). Single mothers parenting alone carry the entire load of domesticity and income earning (Bick, Macarthur & Lancashire, 1998). Fatigue with the energy demands required of nursing a baby in addition to domestic and employment demands may partly explain poor infant feeding behaviour.

Breastfeeding, an aspect of infant feeding, in a capitalist patriarchy raises other micro level implications that may be quite difficult for many women. Breasts are becoming highly sexualized in our culture (Bentley, Dee,

& Jensen, 2003; Palmer, 2004) especially in urban setting. Breastfeeding establishes the breast as a vehicle of nurture beyond sex. Even if the woman herself becomes comfortable with her breastfeeding body, breastfeeding in public subjects the mother to others' ambivalence about the act (Stearns, 1999). Partners, grandparents, and friends will provide support for the normalcy of breastfeeding alright, strangers may be shocked. Feeling uncomfortable with breastfeeding in front of others may be a significant barrier to initiating and sustaining exclusive breastfeeding.

Again the "ideal body shape syndrome" which implores women to maintain a certain body shape is another micro feminist analysis which is associated with low exclusive breastfeeding rates. Most mothers these days, especially "the career women" have become conscious of their body and are ready to maintain their body shape at all cost. This, to the socialist feminism is another means of oppressing women as their bodies become highly sexualised. As a result, a mother who wants to maintain her body shape discontinues exclusive breastfeeding and resort to others feeding methods.

Symbolic Interactionist Perspective

While socialist feminist perspective provides a framework for considering structural implications for infant feeding, symbolic interactionism provides a theory for considering the subjective inner processes that mothers use in making their choices and deciding on the significance of their actions. Karp and Yoels (1993) define symbolic interactionism as "a theoretical perspective in sociology that focuses attention on the processes through which persons interpret and give meanings to the objects, events, and situations that

make up their social worlds” (p.31). Symbolic interactionist ideas were ignited at the University of Chicago in the early twentieth century. At that time, Chicago settlement house social workers partnered with social philosopher John Dewey and sociologist George Herbert Mead in thinking about pragmatic responses to social problems (Forte, 2004).

In 1917, Mead and Dewey marched down Chicago’s Michigan Avenue with Jane Addams in support of suffrage for women. Mead supported the work of his friend Jane Addams. In turn, her work influenced Mead’s intellectual theorizing (Forte, 2004). In *Mind, Self, and Society* (1934), Mead explained the central constructs of symbolic interactionism. Rather than viewing behaviour as a product of conditioning and social reinforcement, Mead believed that the mind is the most important consideration in attempting to understand human behaviour. Through *mind* humans have three species specific abilities. First, mind gives people the ability to create symbols.

Through language and reflection, people name and make judgments regarding objects, feelings, and behaviours in their environment and within themselves. Second, mind gives people the ability for *imaginative rehearsal*. People have internal conversations in their minds about what is going on, what they feel, and what they want to do. Third, mind gives people the ability to make choices about these feelings and behaviours that *give meaning* to the social world (Longres, 2000). A pregnant working mother may imaginatively rehearse how she will feed her baby. And what people will think of her as a result. Her choice, as it is lived out, may become inscribed with personal meanings for her performance of the role of a working mother.

Bartlett (2002) considered breastfeeding following Elizabeth Grosz's (1994) formulation of a corporeal feminist theory that values the body itself over a separated and disembodied ability to think. As body wisdom may be a special kind of subjugated knowledge, I would like to suggest that symbolic interaction's concept of *mind* can include body knowledge to the extent that Mead's original concept includes the human ability to perceive emotional and physical experiences and ascribe meaning to them. Bartlett (2002) suggests that infant feeding physiology gives us an opportunity to consider the importance of the "operations of our own flesh, blood, cells, genes, and hormones" in our construction of knowledge (p. 374). Listening to the body's lead in the experience of exclusive breastfeeding can be a part of Interactionists concept of *mind*.

Bartlett (2002) notes the unpredictable, often non-linear, nature of bodies and breastfeeding. Determined to feed their babies, some women persevere valiantly through painful experiences because breastfeeding holds personal importance and significance beyond such discomfort (Cooke, Sheehan, & Schmied, 2003). Other mothers may accomplish exclusive breastfeeding as easily as ducks swim on water; their physical experience possibly providing a powerful symbolic reinforcement of an ability to mother. A mothers' "let down reflex" may occur in response to a thought of her baby giving physical voice to an embodied connection between mother and child.

While mind is a human biological potential, it is not thought to exist outside of society. Mind produces human society but is in turn influenced and re-shaped by it. People symbolize, use language, and communicate through ongoing interactions in a complex mode of perceptions. Through this interaction

the social system of norms, values, and social institutions are formed and re-formed. *Self* is created from the relation of mind to society. A self-concept is derived from this ability to see one's behaviours from the point of view of others, and ultimately from the point of view of the standards of society. A self is chosen from imaginative rehearsals or meaningful lines of action that a person decides upon. Through this theory we see the mind, self, and society as processes. Social structures are not considered to be fixed. Rather, everything is in a state of motion, always emerging but never arriving (Longres, 2000).

The development of the self is central to symbolic interactionism. This happens as an individual imaginatively constructs the attitudes of the other about a particular role, and thus anticipates the behaviour of the other (Bailey, 2001). Not all "others" are equally influential in this construction process. The 'generalized other', in the most abstract sense, is the view of relevant rules and roles of society as a whole. It is mostly understood through the application of breastfeeding policies that affect the society of a breastfeeding mother.

These may include hospital policies towards breastfeeding and "Baby-Friendly Hospital Initiatives" that offer improvements in breastfeeding initiation rates (Perrine, et al., 2015; Hawkins, Stern, Baum, & Gillman, 2015; Aryeetey & Antwi, 2013). Additionally, the generalized other would include larger, national policy such as the influence of legislation on breastfeeding efforts such as the "Ghana Breastfeeding Promotion Regulation" and the "Affordable Care Act" (Garvin, Sriraman, Paulson, Wallance, Martin, & Marshall, 2013; Drago, Hayes, & Yi, 2010). The generalized other can have either a positive or negative influence on breastfeeding initiation and/or sustainment and although not being specifically studied, it is an important part

of the symbolic interactionist's perspective. In the case of exclusive breastfeeding, marketing and media portrayals of infant care, employment and health policies are influential.

'Reference groups' are social groups with which people identify that are capable of influencing them. Such groups provide standards, norms, attitudes, and values that individuals incorporate into themselves, or that they use in a comparison process. Family, friend, neighbourhood, and workplace groups may become such reference points for mothers who are feeding their infants (Scott & Mostyn, 2003).

When a mother chooses to exclusively breastfeed, her reference group can provide emotional support and information that may not be found anywhere else (Jacobson & Wetta-Hall, 2014; Ferguson & Vanderpool, 2013; Shala, Fahy, & Kable, 2010; Bentley et al., 2003). The lack of support from these reference groups could be a detriment to a mother's desire and/or ability to exclusively breastfeed (Furman & Dickinson, 2013; Zimmerman & Guttman, 2001). Support offered through these reference groups could be critical for a breastfeeding mother who has no other support system.

'Significant others' are considered actual influential people with whom an individual interacts. Most often they are members of a primary social group where face to face interaction occurs (Longres, 2000). Intimate partners have been found to exert substantial influence on mothers' infant feeding choices (Rempel & Rempel, 2004). In fact, research has demonstrated that fathers and grandmothers have an influence on a mother's decision to breastfeed (Mikuka & Rizzi, 2014; Mannion et al., 2013; Bently, et al., 2003; Arora et al., 2000). Although positive support from the significant others is significant (Bentley et

al., 2003; Shahla, Fahy, & Kable, 2010), the mere presence of a significant others does not guarantee positive support. Research suggests some significant others can actually have a negative influence on an outcome (Goldsmith & Albrecht, 2011; Grassley & Eschiti, 2008) and for that matter exclusive breastfeeding.

Exclusive breastfeeding practice can be framed in symbolic interaction terms. Individual mothers must decide whether they will take on the role of exclusive breastfeeding or formula feeding. Decisions are made about the symbolic meanings of these behaviours for the performance of the role of mother. Perception of the relative benefits of each choice per key reference groups and significant others are essential considerations. A mother whose family tradition is formula feeding has a reference group that may encourage continued formula feeding. A key significant other who supports and encourages breastfeeding may prompt a behavioural change.

Because most often there exist differences between expectations others have of us and what we expect of ourselves, all social interaction involves negotiation and bargaining over how behaviours associated with certain roles are to be performed. As the lines of action are negotiated, people's roles become defined both through their perception of others' expectations as well as their own expectations of themselves. Through this processes of role taking and role performance, a sense of identity is formed. An employed mother's identity may become profoundly shaped by the symbolically charged behaviour of infant feeding in view of others.

Exclusive breastfeeding is behaviour with symbolic importance for most people. Symbolic interaction provides a helpful theoretical frame for considering choices made by mothers in an interactive social field.



CHAPTER FOUR

THE STUDY CONTEXT

Introduction

This chapter presents background information on Ghana and the study areas, describing the broader geographical and the socio-demographic characteristics. Infant nutrition, employment and employment among women are also examined. The purpose of this chapter is to portray the contexts within which the research problem of breastfeeding and maternal employment is embedded.

Geography of Ghana and the Study Areas

Ghana is located on the West African coast, bordered by Togo to the east, Cote D'Ivoire to the west, Burkina Faso to the north and the Gulf of Guinea to the south. It lies between latitude $4^{\circ}44'N$ and $11^{\circ}11'N$ and longitude $3^{\circ}11'W$ and $1^{\circ}11'E$. With a total land area of some 239,460 sq. km. the land generally consists of low plains with a dissected plateau in the south-central area and scattered areas of high relief. Lying just above the equator, Ghana has a tropical climate with mean annual temperatures ranging between $26^{\circ}C$ and $29^{\circ}C$, but temperatures are generally higher in the north than in the south (Ghana Meteorological Services Department (MSD), 2006). The climate is tropical with both wet and dry seasons. Both the amount and distribution of rainfall vary across the country and generally decline towards the north. The northern part of the country has one rainy season that extends from March to November whereas

the southern half experiences two rainy seasons beginning from April to July and from September to November.

For administrative purposes, the country is divided into 10 regions viz. Ashanti, Brong Ahafo, Central, Eastern, Greater Accra, Northern, Upper East, Upper West, Volta, and Western regions (see Figure 3). These are subdivided into 216 distinctive metropolitan, municipal and district assemblies. These divisions obviously have their administrative capitals and political heads who are the Chief Executives.



Figure 3: Map of Ghana showing the Ten Regions

Source: United Nations (2005)

Among these 216 metropolitan, municipal and district assemblies, two, namely, Accra Metropolis and Wa Municipality were selected as study sites for this study. Located on the south-east coastal plains of Ghana, the Accra Metropolis covers an area of 137sq km. The Metropolis is bounded on; the East by the a- Dadekotopon Municipal Assembly, on the South by the Gulf of Guinea, on the West by Ga South and Central Municipal Assemblies, and on North by the Ga West and La-Nkwatanang Municipal Assemblies. The capital of the Metropolis is Accra. It is to be noted that Accra is both the capital of the Greater Accra Region and the national capital of the Republic of Ghana.



Figure 4: Location of Sub-Metros of the Accra Metropolis

Source: World Bank (2010)

For administrative purposes the metropolis is sub-divided into 11 administrative entities called Sub-Metropolitan District Councils, commonly referred to as "sub-metros". The sub-metros are named Ablekuma North,

Ablekuma Central, Ablekuma South, Ashiedu Keteke, Ayawaso Central, Ayawaso East, Ayawaso West, La, Okaikoi North, Okaikoi South, and Osu Klottey (see Figure 4).

The sub-metros are responsible for decentralized functions which include some combination of the core Metropolitan functions, the particular combination depending upon the requirements of the particular sub metro. As the Metropolis has grown, large settlements have developed around its boundaries. In the last several years these settlements have become separate municipalities with their own administrations. Some of these surrounding municipalities are home to high income households while others are predominantly comprised of low income households. Because of the strategic location of the metropolis as an administrative and commercial centre, it draws many worker commuters from these radial municipalities.

The Wa Municipality on the other hand is one of the eleven administrative areas (District Assemblies) that make up the Upper West Region (UWR) of Ghana. It shares administrative boundaries with the Nadowli District Assembly to the North, the Wa East District Assembly to the East and South and the Wa West District Assembly to the West and South. It lies within latitudes 9°50'N to 10°20'N and longitudes 9°40' to 10°15'W (Aduah & Aabeyir, 2012). It has a total land mass of 234.74 sq km. the capital of the municipal is Wa and it is also the capital of the Upper West Region of Ghana (Figure 5).

The majority of the inhabitants are Muslims. It is the seat of the Wa-Na, the paramount chief of the Waala Traditional Area. Features of the town include several mosques, the Wa-Na's palace, a museum and a nearby hippopotamus

sanctuary. The Municipality serves as a transportation hub for the north-western part of Ghana, with major roads leading south to Kumasi, north to Hamile and Burkina Faso, and northeast to Tumu and the Upper East Region. There is also an airstrip in the Wa Municipality.

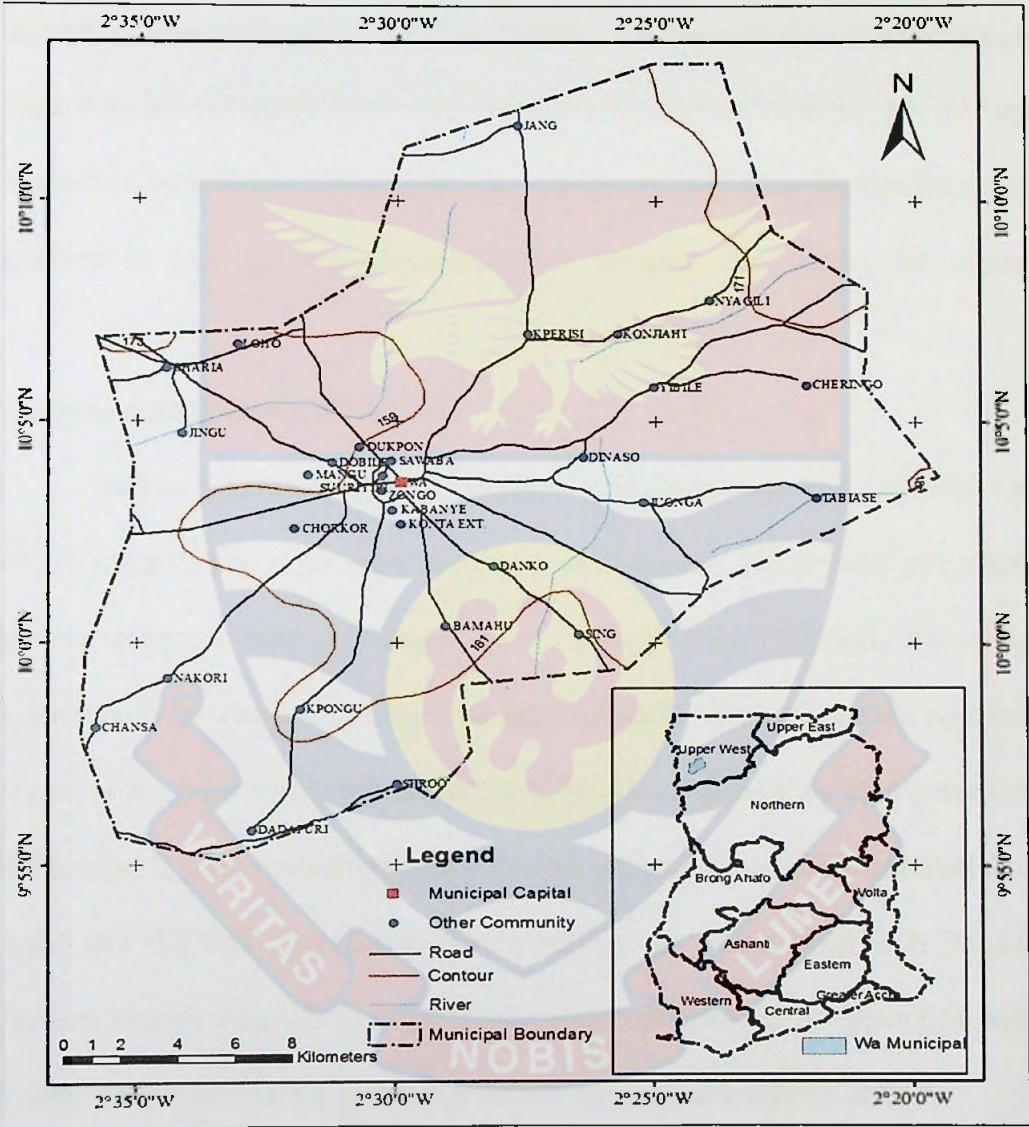


Figure 5: Map of Wa Municipality

Source: Aduah & Aabeyir (2012)

Wa has been inhabited for several hundred years, first by Lobi and Dagaare people, and then by Islamic scholars and traders who settled there in

order to participate in the Trans-Saharan Trade (Wilks, 1989). Despite its urban status, Wa is in many ways still an agricultural community, and the majority of the Wa population make a good portion of their living in small scale farming. The main crops are corn, millet, yams, okra and groundnuts. Upland rice is also farmed in a few areas of the Wa Municipality. The major fruit crop is the mango. Shea nuts are collected from wild trees, for food or refinement into oils and cosmetics. In addition, it is a major cotton producer in Ghana, for which a cotton ginnery is sited in Wa Municipality to produce lint cotton for export.

Demographic Profile of Ghana

Ghana is home to about 24.6 million people with an annual growth rate of 2.5 percent. The population density as of 2010 was 103 persons per square kilometre representing an increase of 30.4 percent from 79 persons per square kilometre in the year 2000 (Ghana Statistical Service, 2012). The most populous region is Ashanti, with a population of 4,780,280, representing 19.4 percent of the country's total population followed by Greater Accra, with a population of 4,010,054 (16.3%). The least populous regions are Upper West with 702,110 persons constituting 2.8 percent of the total population and Upper East with 1,046,545 persons or 4.2 percent of Ghana's population (GSS, 2012).

At the regional level, Greater Accra is the most densely populated region with a density of approximately 1,236 persons per square kilometre compared to 895.5 persons per square kilometre in 2000. It is followed by the Central Region with a population density of 224 persons per square kilometre. Northern region is the most sparsely populated with about 35 persons per square

kilometre whiles Greater Accra region, host of the capital city is the most densely populated with 1,236 persons per square kilometre (GSS, 2012).

The percentage of male population is 48.7 in contrast with 51.2 for females. Ghana's population continues to be youthful with a greater proportion (38.3%) being children below 15 years, a trend that can be understood partly by the relative high fertility and declining child mortality due to improvement in public health. Elderly people aged 65 years and older has also declined slightly from 5.3 percent in 2000 to 4.7 in 2010.

The proportion of the population living in urban areas is 50.9 percent compared to 43.8 percent in 2000. The level of urbanization varies from region to region. Greater Accra has the highest proportion of urban population (90.5%), followed by Ashanti (60.6%) while Upper West has the lowest proportion of urban population (16.3%). The concentration of industries and commercial activities in Greater Accra and Ashanti may partly account for the relatively high urban population in these regions. The remaining eight regions are predominantly rural, with the level of urbanisation below the national average (GSS, 2012).

Current data on marital status indicate that, of the population aged 12 years and older, 42.9 percent were married while 42.0 percent had never been married. In addition, 10.2 percent were separated, widowed or divorced. There are notable regional variations in the marital status of the population. Greater Accra and Ashanti regions (46.3% and 44.2% respectively) have higher proportions of populations who have never been married. On the other hand, Northern region recorded the highest proportion (54.3%) of the married population.

The ethnic variations of the Ghanaian populace show the following trend: the Akans are the predominant ethnic group in Ghana (47.5%), followed by the Mole Dagbani (16.6%), the Ewe (13.9%) and Ga-Dangme (7.4%). The Mande forms the smallest ethnic group (1.1%) in Ghana. Ghana is predominantly a Christian country with the majority (71.2%) of the population professing the Christian faith, followed by Islam (17.6%). Only a small proportion of the population either adhere to traditional religion (5.2%) or are not affiliated to any religion (5.3%). Apart from the Northern region where Islam is the dominant religion (60.0%), higher proportions of the population in the other nine regions are reported to be Christians (GSS, 2012).

In terms of occupation, about two-fifth (41.2%) of the economically active population aged 15 years and older are skilled agricultural, forestry and fishery workers. About 21 percent is also engaged as service and sales workers while 15.2 percent is craft and related trade workers (GSS, 2012).

With special reference to the study areas, the 2010 population and housing census estimated the population of the Accra Metropolis as approximately 1.7 million representing 42% of the region's total population. In addition to this figure it is estimated that on daily basis there is an influx population of 1 million to the City for various socio-economic activities. Males constitute 48.1 percent and females represent 51.9 percent. The Metropolis is entirely urban (100%), and youthful population (children under 15 years) (42.6%) depicting a broad base population pyramid which tapers off with a small number of elderly persons (60+ years) constituting 5.9 percent. It has a sex ratio of 93. The total age dependency ratio is 48.5 percent, the child

dependency ratio is higher (42.6%) than that of old age dependency ratio (5.9) (GSS, GHS & ICF International, 2015).

The main language spoken by inhabitants of Accra Metropolis is Ga. The development of infrastructure and services and the creation of job opportunities have made Accra an attraction and have induced an influx of population from all parts of the country and beyond. Since becoming the capital city, Accra has grown rapidly to engulf many surrounding rural settlements which now nest within the city as 'urban villages' (Songsore, 2003).

The population of Wa Municipality on the other hand, according to the GSS (2011), is 107,214 representing 15.3 percent of the region's total population. Males constitute 49.7 percent and females represent 50.6 percent. About 34 + percent of the population reside in rural localities. The Municipality has a sex ratio of 97.7. The population of the district is youthful (35% of the population is below 15 years) depicting a broad base population pyramid which tapers off with a small number of elderly persons (60 years and older) representing 6.2 percent. The total age dependency ratio for the Municipality is 65.1, the age dependency ratio for rural localities is higher (77.5) than that of urban localities (59.4).

The GSS (2011) shows that 80.4 percent of the people in the Wa Municipality belong to the Mole-Dagbani group which comprises the Waalas who are the indigenous people, Dagaabas and the Sissalas. There have been considerable inter-marriages between the Waalas, Dagaabas and the Sissalas. Other ethnic groups found in the Municipality include the Frafra, Akan, Ewe, Ga, Dagomba, Grushi, Gonja and Moshies who are engaged in secular work and commercial activities (GSS, GHS & ICF International, 2015).

Infant Nutrition in Ghana

Children's nutritional status is a reflection of their overall health. When children have access to an adequate food supply, are not exposed to repeated illness, and are well cared for, they reach their growth potential (GSS, 2011). Undernourished children are more likely to die from common childhood ailments, and for those who survive, have recurring sicknesses and faltering growth. A reduction in the prevalence of malnutrition will also assist in the goal to reduce child mortality.

Contemporary pages of post independent history of Ghana are replete with government policies on nutrition. Gharthey (2010 p.15) classifies these policies into six phases: the period of food demonstration and nutrition education (1957-1966); continuation of food demonstration and transition into identifying attitude and behaviour change (1966-1974); the period of weaning and supplementary foods (1974-1987); addressing micronutrient requirements (1987-1990); planning and mobilizing for action: addressing micronutrient deficiencies and exclusive breastfeeding (1990-2000); and consolidation of strategies for addressing micronutrient deficiencies, exclusive breastfeeding and community-based growth monitoring (2000-2008). It is worthy of note that the changing policy focus from one period to another was often informed by prevailing local or national need and more importantly, influences from development partners (Gharthey, 2010).

Even with all these policies however, malnutrition among Ghanaian children who constitute a greater part of the population remains high. Anthropometric (measurement of human body) data from the 2008 indicate that

28 percent of all under five children are stunted (chronic malnutrition) and 40 percent of the cases involve children age 18-23 months (GSS and IFC Macro, 2009 p. 182). Children in rural areas (32%) are more likely to be stunted than in urban areas (21%). The report similarly estimated those who are wasted at 9 percent (acute malnutrition) whereas underweight children (combination of chronic and acute malnutrition) are 14 percent (GSS and IFC Macro, 2009 p. 182). The situation improved slightly in 2014 where, 19 percent of children were stunted, 5 percent were wasted, and 11 percent were underweight (GSS, GHS & ICF International, 2015).

Inappropriate feeding practices coupled with frequent episodes of infectious illnesses are primarily the causes of malnutrition. Given the established relationship between malnutrition and a range of adverse health outcomes, namely, child mortality, slowed growth, impaired learning abilities (UNICEF, 2009), the need for improved and sustained efforts at combating the condition is not only critical for improvements in child's health but central to the achievement of the goal three of the Sustainable Development Goals (SDGs).

Employment Situation in Ghana

The Ghana Statistical Service (GSS) defined the "employed" as all persons who did some work for pay, profit or family gain regardless of the number of hours they worked (GSS, 2008). Employment is the single most important socio-economic and political issue facing policymakers in Ghana (Otoo, Osei-Boateng & Asafu-Adjaye, 2009). The employed people constitute the majority of the economically-active population. Data on employment status

indicates that majority (64.8%) of the economically active population are self-employed (GSS, 2012). Employees constitute 18.2 percent while contributing family workers make up 11.5 percent. Apprentices form only 2.7 percent of the economically active population. The 2010 Population and Housing Census report indicates that a relatively large proportion of males (25.3%) compared to females (11.4%) are employees. Also, females are slightly more likely to be self-employed (69.4%) than males (60.0%). In addition, more females (14.2%) than males (8.7%) are engaged as contributing family workers (GSS, 2012).

Currently, the formal economy employs just about 10 percent of the total labour force. The remaining 90 percent of the workforce is employed in the informal economy. About one-fifth of the employed are working in family-based enterprises. This group is referred to as 'contributing family workers'. A further 22.1 percent of the employed are participating in the labour market either as employees (17.6%) or employers (4.5%) while 2.3 percent are apprentice.

As shown in Table 1, self-employment is more dominant in rural areas (59.4%) compared to urban areas (47.2%). In urban areas, females (60.3%) are more likely to be self-employed compared to males (33.8%). But in rural areas the proportion of males who are self-employed (64.3%) exceeds the proportion of females self-employed (55%). In addition, the proportion of those employed (i.e., those in wage employment) in urban areas (34.8%) is about four times the proportion employed in rural areas (8%). In addition, the proportion of persons working in family-based enterprises in rural areas (27.5%) is about four times higher compared to their counterparts in urban areas (7.6%).

Table 1:

Employment Status of the Working Population by Sex and locality (Percent)

Employment status	Urban			Rural			Ghana		
	Male	Female	All	Male	Female	All	Male	Female	All
Employee	49.7	20.1	34.8	13.8	2.8	8.0	27.0	8.9	17.6
Employer	7.4	5.5	6.4	4.2	2.7	3.5	5.4	3.7	4.5
Self-employed	33.8	60.3	47.2	64.2	55.1	59.5	53.0	56.9	55.1
Contributing									
Family worker	4.1	11.0	7.6	16.2	37.9	27.5	11.7	28.4	20.4
Apprentice	4.7	3.0	3.8	1.5	1.5	1.5	2.7	2.0	2.3
Other	0.3	0.1	0.2	0.1	0.0	0.0	0.2	0.1	0.1
Total	100	100	100	100	100	100	100	100	100

Source: GSS, (2012)

The data show that, among the employed, two-thirds are (66.7%) are employed by the private sector (including those in rural agricultural sector and in urban informal economies). The public sector employs less than a third (28.5%) of the total workforce. Public service workers are mostly concentrated in urban areas.

Employment among Women in Ghana

In a country like Ghana, women's participation in income generating employment is high, nearly equivalent to that of men. Women's employment is frequently concentrated in activities for which earnings are low, the risks of poverty is high, and control over income precarious – for example, a disproportionate number of women often work as own-account workers or unpaid workers on family enterprises (GSS, 2014).

Female participation rates in Ghana's formal sector are generally low. The GLSS4 shows that only about 6.2 percent of females are formally employed in both the public (3.3%) and private (2.9%) sectors. This markedly contrasted with that of men, which shows formal sector employment of 22.8 percent. Furthermore, women in formal sector employment are mostly concentrated in the lower ranks and/or non-managerial positions and thus their voices are not heard at the decision-making levels. According to the GSS (2014), 41.4 percent of working women are employed in the agricultural occupations and another 37.2 percent work in sales and services. Eleven percent of employed women are craft and related trade manual workers while 5.2 percent are working in professional, technical, and managerial positions (GSS, 2014).

While the informal sector gives women the flexibility they need to juggle their multiple roles as workers, wives and mothers, the remuneration is highly unstable and therefore their earnings vary from period to period. Also they lack social security since the informal sector is not well structured to lend itself to the social security contributions and benefits. To this end, women are more vulnerable compared to men since they dominate the informal sector. Furthermore, women's work in the informal sector is basically at the subsistence level and thus their income is relatively low compared to their male counterparts in the same sector.

The role of women in employment cannot be overemphasised, and every year, more women enter the labour market in Ghana in their quest to better their lot in contributing their quota to the macro-economic development of the country. Currently, more women are getting out of their home jobs into paid jobs and are forced to combine their work at home as homemakers and their

jobs outside the home (Huerta et al., 2011). This trend has serious implications for breastfeeding especially in the first six months of the infants' life. However, women in formal employment settings have to live with the burden of nursing their babies on resumption of duties after 12 weeks or less of maternity leave. Therefore, to achieve high rates of breastfeeding and women's employment, socio-cultural support and labour market, health and early childhood policies are vital (Abdulwadud & Snow, 2007).



CHAPTER FIVE

METHODOLOGY

Introduction

This chapter presents the methodology and the techniques used to address the study objectives. It discusses the ontological and epistemological underpinnings of the study, quantitative and qualitative approaches, the research design, study area, sampling, data instruments and collection, data analysis, validity and reliability of the data generated from the field and ethical considerations of the research work.

Philosophical underpinnings of the Study

When undertaking social science research, it is important to consider different research paradigms and matters of ontology and epistemology (Flowers, 2009). Ontology is concerned with the nature of reality. To a greater extent than epistemological considerations, this raises questions of the assumptions researchers have about the way the world operates and the commitment held to particular views. Epistemology, on the other hand, concerns what constitutes acceptable knowledge in a field of study. The key epistemological question is 'can the approach to the study of the social sciences, including that of sociology, be the same as the approach to studying the natural sciences?' The answer to that question points the way to the acceptability of the knowledge developed from the research process (Blaikie, 1993).

The research methodology adopted for this study is derived from the ontological and epistemological assumptions of the two main philosophical positions, namely positivism and interpretivism which have always inspired

social science research (Bryman, 2001; Grix, 2004; Guba & Lincoln, 1994; Robson, 1993). In addition, the socialist feminism and symbolic interactionist perspectives inspired the study methodology.

The positivist position is derived from that of natural science and is characterised by the testing of hypothesis developed from existing theory (hence deductive or theory testing) through measurement of observable social realities. This position presumes the social world exists objectively and externally, that knowledge is valid only if it is based on observations of this external reality and that universal or general laws exist or that theoretical models can be developed that are generalisable, can explain cause and effect relationships, and which lend themselves to predicting outcomes (Flowers, 2009; Grix, 2004). It follows from the positivist ontology that 'objective knowledge' is possible, for there is a fixed and unchanging reality which research can accurately access and tap. Thus, the fundamental characteristic of positivism is the contention that the methods, concepts and procedural rules of the natural sciences can, and should be applied to the study of social phenomena (Bryman, 2001; Grix, 2004).

In positivist thinking, therefore, the confirmation or refutation of theory can only be revealed from data gathered through the way the world is observed and experienced via our senses - in this case, 'objective, official statistics' (Miller & Brewer, 2003). Data for the positivist model of social research is thus called 'hard data' implying that it is untainted by the interpretative and meaning-endowing processes of the researcher or the researched (Creswell, 2003) and such data is numerate, seeking to measure and describe social phenomena by the attribution of numbers (Miller and Brewer, 2003). In the words of Weber (cited in Miller & Brewer, 2003, p 237), "this gives an elective affinity between

the natural science model of social research and those data collection techniques notably questionnaires, social surveys and experiments which generate numerate data and supposedly render social phenomena 'objective', untouched by people's interpretative and reality-constructing capacities" (Miller & Brewer, 2003, p 237).

Contrary to the positivist view of social reality and how it can be known is the interpretivist position. This position is described by Hatch and Cunliffe (2006) as anti-positivist and by Blaikie (1993) as post-positivist since it is contended that there is a fundamental difference between the subject matters of natural and social sciences. The interpretivists view reality as a complex social construction of meanings, values, and lived experience (Cohen et al., 2000; Grix, 2004) and can, therefore, be better understood through people's interpretive or meaning-endowing capacities rather than through our sensory observation and experience of the world as believed by the positivists (Bryman, 2004; Robson, 1993).

Data for interpretivist research is, therefore, obtained through the interpretations people give to their situations and experiences of reality. Often referred to as 'soft data', such data is usually verbal, seeking to reveal and describe social phenomena by the attribution of words (Bryman, 2004; Grix, 2004). Interpretive research, therefore, differs from the positivist or natural science model of investigation and employs research methods and data collection techniques that allow research subjects to interpret their own experiences of the world rather than those employed in positivist studies. Interpretivist data gathering techniques, therefore, include observations,

interviews, documents and audiovisual materials which generate data mostly in the form of words (Creswell, 2003).

The ontological dichotomy between positivism and interpretivism has therefore generated epistemological distinctions between quantitative and qualitative research visions. In social science investigations, quantitative research usually rests upon the assumptions of positivism while qualitative research rests upon interpretivist assumptions (Bryman, 2001; Denscombe, 2002). The current study therefore combines both quantitative and qualitative approaches to undertake the research. This approach is variously referred to as triangulation (Blaikie, 2000; Grix, 2004), multi-strategy research (Bryman, 2004), mixed methods research (Creswell, 2003) or multiple methods (Robson, 1993). In the view of Blaikie (2000), triangulation or method combination is actually difficult because of the different epistemological and ontological underpinnings of the two research strategies.

Such writers as Guba and Lincoln (1985), Hughes (1999) and Blaikie (2000) have, however, argued against the idea of combining the two research strategies in a single study with the reason that research methods carry epistemological commitments and the use of any data collection technique is not simply an issue of collecting data but a commitment to either positivism or interpretivism (Blaikie, 2000; Grix, 2004). This means that quantitative and qualitative researches are grounded in two incompatible epistemological principles. According to Guba and Lincoln (1985), combining the two approaches is inappropriate and represents failure to recognise the distinction between a paradigm and a method. They argue that the use of any data gathering

technique involves commitment to the approach with which it is usually associated and this makes method combination inappropriate.

Contrary to the above position, some writers emphasise the usefulness of combining the two approaches in spite of their epistemological underpinnings (Bryman, 2004; Grix, 2004). Bryman (2004), for instance, has argued that methods themselves should be viewed as mere tools for collecting data and should not be looked upon as being automatically rooted in epistemological and ontological commitments. He, therefore, views research methods from one strategy as “capable of being pressed into the service of another” (Bryman, 2004, p 454).

In support of this position, other research methodologists including Denzin, 1989, Robson, 1993, Bryman and Cramer, 1997, Creswell, 2003 and Grix, 2004 recognise that there is much to be gained from a fusion of quantitative and qualitative methods in a single study of social phenomena. Denzin (1989), for instance, has suggested that triangulation might be done in social research by using different methods, sources, investigators or theories while Robson (1993) also observes that a social research question can, in most cases, be attacked by more than one method. In the current study therefore, different theories and methods rooted in both positivist and interpretivist philosophies are combined. For instance, socialist feminism and symbolic interaction perspectives used for the study are respectively underpinned by positivist and interpretivist philosophies. According to Robson (1993), there is no rule that says only one method must be used in an investigation. He goes on to suggest that using more than one method in a single investigation can have

substantial advantages even though it almost inevitably, adds to the time investment required.

The views of these scholars suggest that methods of quantitative and qualitative approaches can complement each other in a single study of social phenomena. As noted by Grix (2004, p 84), "as long as you are aware of how you are employing a specific method, and what this method is pointing you towards, and how this relates to the ways you employ other methods, there should be no problem". In this regard, Grix (2004) has advised that it is generally a good idea for social scientists to use more than one method of enquiry to improve the chances of getting better, more reliable data and to minimise the chances of biased findings. He argues that, there is no reason why one should not employ methods usually associated with quantitative research in an in-depth case study. These arguments provide a firm basis for the combination of quantitative and qualitative methods in social science investigations and for that matter the current study. Thus, the criticisms notwithstanding, the mixed methods strategy of social investigation is fast becoming popular among researchers (Bryman, 2004; Creswell, 2003; Grix, 2004).

Study Design

The study has as its main objective to examine exclusive breastfeeding practices among mothers engaged in the formal sector employment in Ghana, with the view to understand the nature of exclusive breastfeeding knowledge and perceptions and how these interact with the nature of maternal employment. The varied nature of the data required and different sources from which they

had to be gathered makes the explanatory cross-sectional survey design utilising mixed methods approach very appropriate. An explanatory design was chosen because it is designed not only to describe a phenomenon with the purpose of providing a picture of situations as they naturally happen (Burns & Grove, 1995), but also to help us understand why that phenomenon exist (Bhattacharjee, 2012; Boeijs, 2010).

Description is considered more limited than explanation, because explanation entails description. Moreover, the research problem in this study does not lend itself to an experimental or quasi-experimental design, thus, human characteristics and behaviours are inherently not subject to experimental manipulation; it would also not be ethical to manipulate the respondent's knowledge (Pilot & Hungler, 1995).

The design is also comparative in nature. This is because the study seeks to compare exclusive breastfeeding of employed mothers in both study settings. The study was conducted in Accra Metropolis and Wa Municipality, as such; the phenomenon in both study sites will be compared.

The design for the study also followed a mixed-methods approach which according to Creswell and Plano Clark (2007) is a "research design based on assumptions that guide the collection and analysis of data using the mixture of qualitative and quantitative approaches"(p.5). A central premise is that the use of quantitative and qualitative approaches together can provide a better understanding of research problem in the current study.

Furthermore, the combination of qualitative and quantitative methods will be helpful in crosschecking the data gathered by different methods, thereby, making the results of the study valid and credible. As observed by combining

different methodologies in a single study enhances the researcher's claim for the validity of his or her conclusions if they can be shown to provide mutual confirmation.

Mixed methodologies can provide a useful and novel way to communicate meaning and knowledge (Johnson & Onwuegbuzie, 2004) because they can combine the reliability of counts with the validity of lived experience and perception, with special reference to the phenomenon under study (Bryman, 2004, p. 131). Thus, to help gain a better understanding of exclusive breastfeeding practices of working mothers by acknowledging the multi-faceted nature of the phenomenon, whereas single methods are limited in the understandings they can produce.

As admitted by Bhattacharjee (2012), the goal of this study is to collect as much and as diverse data as possible that can help generate the best possible insights about exclusive breastfeeding and maternal employment. In line with this methodological approach, research tools associated with both quantitative and qualitative approaches was combined to collect field data. These were in-depth interviews and survey questionnaires.

Mixed-methods usually present the challenge of timing and ordering of methods within the study. Sometimes these terms refer to when the data were collected and whether they were collected at the same time (simultaneously) or during different periods (sequentially). Some researchers interested in comparing how different tools capture perceptions, collect both qualitative and quantitative data at the same time (Gogolin & Swartz, 1992; Jenkins, 2001). Others have also collected and analyzed data sequentially (Aldridge, Fraser & Huang, 1999; Myers & Oetzel, 2003). This study adopts the simultaneous

mixed-methods approach. A survey questionnaire instrument with multiple subscales to assess and examine aspects of exclusive breastfeeding and maternal employment was administered to a section of sampled employed mothers. At the same time, some of the mothers were targeted for in-depth interviews.

Study Areas

Researching exclusive breastfeeding among employed mothers could be carried out anywhere in Ghana; however, with the study targeting employed mothers in the formal sector, two areas became more appropriate for the study; Accra Metropolis and Wa Municipality. Detailed descriptions of these areas have been given in Chapter Four under ‘The Study Context’. These areas are not only spatially far away from each other, but they are also located in regions that record contrasting statistics about the phenomenon under study.

Table 2:
Employment and Exclusive Breastfeeding among Females by Regions in Ghana

Region	Number	Occupation among females		EBF Rate
		Formal	Informal	
		Number (%)	Number (%)	
Western	472417	36849 (7.8)	435568 (92.2)	46.8
Central	474571	36067 (7.6)	438504 (92.4)	39.5
Greater Accra	909456	146422(16.1)	763034 (83.9)	21.1
Volta	462256	31433(6.8)	430823 (93.2)	49.1
Eastern	569659	47282(8.3)	522377 (91.7)	42.6
Ashanti	981746	98175(10)	883571 (90.0)	39.0
Brong Ahafo	495372	30713(6.2)	464659 (93.8)	69.8
Northern	494098	14823(3)	479275 (97.0)	63.6
Upper East	233122	9092 (3.9)	224030 (96.1)	58.4
Upper West	145245	4212 (2.9)	141033 (97.1)	67
Total	5,237, 942	382152	4782874	

Source: GSS (2011); GSS [MICS] (2011)

Greater Accra Region compared with other regions in Ghana, records the highest number of women employed in the formal sector (16.1%). However, it records the lowest exclusive breastfeeding rate in the country (21%) (Table 2). Upper West Region on the other hand has the least number of women employed in the formal sector (2.9%), but records the highest average of 67 percent of exclusive breastfeeding rate in the country. These statistics therefore provide the motivation to examine the determinants at play in these two settings to produce these trends.

Another motivation to focus on these two cities is the fact that Accra and Wa represents a large city and a medium sized city respectively in the Ghanaian context. These variations readily provide an opportunity to investigate their influence on the nexus between exclusive breastfeeding and maternal employment in the two cities.

Sample Size and Sampling Technique

Selecting study Sites. The Accra Metropolis and Wa Municipality were purposefully selected because of the sharp contrasting statistics they portray on the subject under study. The primary respondents for the study were employed mothers with infant pair in the first six months postpartum. In order to have access to these mothers, child welfare clinics (CWCs) in the study areas were visited and mothers with infant pair who came for postnatal check-ups were recruited as participants for the study.

Selecting CWCs. A total of 28 and seven government run health facilities are located in Accra Metropolis and Wa Municipality respectively. Out of this number, 12 and four hospitals were purposefully selected in Accra

Metropolis and Wa Municipality respectively because they record high attendance of the primary respondents (mothers with infants pair) compared to the others hospitals (Table 3). These hospitals were targeted as sites to select lactating mothers for the study.

Selecting respondents. Attendance records at the selected welfare clinics were used to determine the average number of mothers attending the clinic per month (see Table 3). This is because mothers with infants aged six months and below attend child welfare clinic at least once a months for post-natal chech-ups. The total number of lactating mothers who visited all the 12 selected child welfare clinics in the Accra Metropolis every month was 1,756. A total of 400 lactating mothers attended the four selected hospitals in Wa Municipality. This brought the target population for the two study areas to 2,156.

Some inclusion criteria were applied to help select some of the mothers for the study. This was necessary because the study targeted only mothers employed in the formal sector and who had infants not older that six months. The inclusion criteria for selection were as follows:

The respondent should:

- 1) Be a breastfeeding mother employed in the formal sector
- 2) Not have twins (index child)
- 3) Have an infant not older than 6 months of age at the time of the study.
- 4) Be a resident in either Accra Metropolis or Wa Municipality.

Table 3:

CWC Selected in Accra Metropolis and Wa Municipality, Population and Sample used

Hospital	Population of mother infant pair	Population after inclusion criteria was applied	Sample required for the survey component	Purposivel y selected for in-depth interview	
Accra Metropolis	Achimota Hospital	170	75	63	2
	Adabraka Polyclinic	123	67	57	2
	Dansoman Polyclinic	110	46	41	2
	Ridge Hospital	190	98	79	2
	La General Hospital	182	81	67	2
	Nima Government Clinic	139	41	35	2
	Maamobi General Hospital	141	55	48	2
	Princess Marie Louise Children's hospital	192	110	86	2
	James Town Maternity	110	54	47	2
	Mamprobi Polyclinic	127	59	51	2
	Kaneshie Polyclinic	143	70	59	2
	Ussher Polyclinic	129	53	46	2
Sub-Total	1,756	809	679	24	
Wa Municipal	Upper West Regional Hospital	132	49	43	2
	Wa Sub Clinic	104	23	21	2
	Dobile Clinic	86	24	22	2
	Market Clinic	78	20	19	2
	Sub-Total	400	116	105	8
Grand Total	2,156	925	784	32	

Source: Field survey, Sika-Bright (2016)

After the inclusion criteria were applied, the number of mothers who qualified to be part of the study came to 925 for both study areas (Accra Metropolis, 809; Wa Municipality, 116) which is less than half of the targeted population. In order to determine a representative sample size for the survey component of the study, Krejcie and Morgan's (1970) sample determination formula was utilised and applied to each welfare clinic as an entity on its own. The formula is as follows:

$$s = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

s = required sample size

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

After applying the formula, the total sample needed for the survey component was 784 mothers (Accra Metropolis, 679; Wa Municipality, 105) out of 925, (Table 3). This made the use of probability sampling procedure inappropriate as the target population was almost the same as the sample size required. As a result, mothers were selected purposively based on the inclusion criteria.

Respondents were selected as follows: the first mother waiting to be seen by clinic staff was selected if she met the inclusion criteria. She was then recruited after seeing the clinic-based nursing staff. From then on, every other mother in the queue meeting the inclusion criteria was recruited. If a sampled mother does not meet the inclusion criteria, the next mother meeting the criteria was sampled. Each clinic was visited on consecutive days of post-natal check-ups until all mothers in attendance were met.

Additionally, two mothers per each selected hospital were purposefully selected for the in-depth interview session. These were mothers who have resumed employment, so they can give a detailed account of how employment affects exclusive breastfeeding. In all, 24 interviews were conducted in Accra Metropolis and eight in Wa Municipality.

Data Collection Methods

Considering the objectives of the current study, the nature of the data required to answer the research questions and the fact that this study employed the mixed methods approach; it became evident that the best way to collect adequate data for the research would be to combine the methods of both quantitative and qualitative approaches. This is because some of the data required were qualitative in nature and could best be obtained through interviews while others were quantitative and thus, could be elicited by means of questionnaires. The study, therefore, employed survey questionnaire and interview guide, drawing upon the strengths of these different methods to improve the quality or validity of the data.

Surveys are typically selected when information is to be collected from a large number of people or when answers are needed to a clearly defined set of questions as the case of this study. Surveys are good tools for obtaining information on a wide range of topics when in-depth probing of responses is not necessary, and they are useful for both formative and summative purposes.

In-depth interviews, on the other hand, are personal and unstructured interviews, whose aim is to identify participant's emotions, feelings, and opinions regarding a particular research subject. The main advantage of personal interviews is that they involve personal and direct contact between interviewers and interviewees, as well as eliminate non-response rates, but interviewers need to have developed the necessary skills to successfully carry an interview (Bhattacharjee, 2012; Fisher, 2005; Wilson, 2003). What is more, unstructured interviews offer flexibility in terms of the flow of the interview, thereby leaving room for the generation of conclusions that were not initially

meant to be derived regarding a research subject. However, there is the risk that the interview may deviate from the pre-specified research aims and objectives (Gill & Johnson, 2002).

Research Instruments

Structured questionnaire and interview guide were used as instruments for the study (See Appendices C & D). The choice of the instruments was influenced by the research design adopted for the study. The development of the instruments was informed by the literature and the research objectives. The structured questionnaire instrument comprised five sections, with reference to respondents' socio-demographic characteristics and the study objectives. The first section contained questions on the socio-demographic characteristics of the respondents. The remaining four sections targeted the study objectives and elicited responses in that regard.

The interview guide, on the other hand, constituted questions bordering on the following topics: mothers' knowledge of and attitudes towards exclusive breastfeeding, experience with exclusive breastfeeding and their coping strategies as they breastfeed and work. It also sought from mothers barriers to successful exclusive breastfeeding. In addition, probes were used in the interviews to encourage the participants' discussion of their experiences, thereby increasing data density. Both instruments were assessed by experts in the field to evaluate the appropriateness and coverage thereof, especially in terms of content validity. Any concerns or questions raised by the experts were discussed verbally, and integrated into the format of the instrument by the researcher.

Data Collection Procedure

Data collection for this study took place between 9th November, 2015 and 30th March, 2016. Data was collected by the researcher and four trained field-assistants. The field-assistants comprised one research assistant, two post-graduate students and one national service personnel, all in the University of Cape Coast who are fluent in dialects spoken in the two selected study areas. The field-assistants were given a two-day training workshop. The workshop focused on the research objectives, data collection techniques, items and instruments, practice in the use of the instruments, skill-building exercises on interviewing and interpersonal communication, and discussion of ethical issues. The training took place in the first week of November, 2015.

The instruments were pre-tested by the researcher and field-assistants, between the 3rd and 5th of November, 2015, to give them first-hand experience of the fieldwork activities. The purpose of the pre-testing was to put the instruments in shape. The questionnaire and the interview protocols for the lactating mothers were pre-tested among 72 mothers representing 10 percent of the total sample size prior to the commencement of the actual fieldwork. The mothers for the pre-testing were selected from the post natal clinic at the Central Regional Hospital, Cape Coast because it has a vibrant post natal clinic and it is located in a metropolis that shares similar characteristics with the two study sites. After the pre-testing exercise, few changes to some questions on the instruments were required.

The researcher and his team of field assistants visited all the selected CWCs on days the mothers come for postnatal check-ups in both study areas to recruit respondents. All the mothers present who agree to participate were

screened in accordance with the inclusion criteria and those who meet the criteria were recruited as participants according to the sampling procedure.

Data collection lasted for approximately 18 weeks in Accra Metropolis and two weeks in Wa Municipality. Within these weeks the field assistants and the researcher met with all recruited nursing mothers and administered the instruments. All the 784 mothers recruited were surveyed using the structured questionnaire. Those who were not able complete their questionnaires on the spot were given a week to respond. Most of the mothers were able to self-administer the survey instrument with little or no assistance; however, field assistants who were on standby assisted few mothers who found it difficult to answer the questions. Those recruited for interview were met on an agreed date and place where the interview was conducted. Each interview lasted for between 45 minutes and 60 minutes. An additional week was used to do a few follow-ups regarding the in-depth interview.

Response Rate

Response rate was averagely high. The 784 mothers selected for the survey component in both Accra Metropolis (679) and Wa Municipality (105) were given questionnaire to fill and return them on an agreed date. A total of 63 (8.0%) mothers did not return their questionnaires. As a result, 721 mothers responded to the survey questionnaire for the study achieving a response rate of 92 percent.

Table 4:
Distribution of Respondents by child welfare clinic (CWC)

Hospital		Mother given instrument	Mothers who returned instrument	Mothers who did not return instrument
Accra Metropolis	Achimota Hospital	63	59	4
	Adabraka Polyclinic	57	51	6
	Dansoman Polyclinic	41	41	0
	Ridge Hospital	79	72	7
	La General Hospital	67	65	2
	Nima Government Clinic	35	26	9
	Maamobi General Hospital	48	40	8
	Princess Marie Louise Children's hospital	86	83	3
	James Town Maternity	47	42	5
	Mamprobi Polyclinic	51	47	4
	Kaneshie Polyclinic	59	52	7
	Ussher Polyclinic	46	40	6
	Sub-Total	679	618	61
Wa	Upper West Regional Hospital	43	42	1
	Wa Sub	21	21	0
	Dobile Clinic	22	21	1
	Market Clinic	19	19	0
	Sub-Total	105	103	2
Grand Total		784	721	63

Source: Field survey, Sika-Bright (2016)

As mentioned earlier, respondents were selected from CWCs in Accra Metropolis and Wa Municipality and the response rate according to the CWC selected is shown in Table 4. Meanwhile, two mothers targeted for in-depth interviews at each of the CWCs were all met and interviewed.

Data Management

Data management refers to any activity concerned with processing or looking after data generated as part of research activities (Muraya, Garlick, & Coe, 2002). During the field work exercise, the principal investigator kept all

answered instruments and recorded audiotapes at the end of each day. At the end of the fieldwork activities, the collected data including all paper identification information, memos, notebooks, transcribed materials, and tapes were kept in a locked file cabinet in a secured confidential location in the office of the researcher. Audiotapes will be destroyed one year following completion of the study.

Data Capturing and Analysis

The study gathered both qualitative and quantitative data due to the mixed methods approach used. As such, the study adopted different modes of analysis. The quantitative data was edited and coded for analysis using the Statistical Product and Service Solutions (SPSS) computer software package (version 21.0 for Microsoft Windows). The entry was done in duplicate to help in validating and verifying the data. Findings from the analysis were presented in contingency tables with summary statistics including multi-variants chi-square tests and proportions to look at the various relationships that existed among variables of interest.

The mother with an infant not more than six months was the unit of analysis. The dependent variable was exclusive breastfeeding while the independent variable was the nature of maternal employment. The socio-demographic characteristics of the mother was the background variable. The “nature of mothers’ employment” is conceptualised as the type of work mothers are engaged in, their work schedules and the leave/break periods associated with their work. The various relationships that exist among the variables of interest were examined at 0.05 level of significance.

Qualitative data analysis is a means of transforming data into findings. Yet no universally fixed formula exists for such a process (Patton, 2002). Many researchers thus employ different strategies depending on the nature of their research. These include organising the data, coding the data, immersion in the data, generating categories and themes, offering interpretations through analytic memos, searching for alternative understanding, and presenting the study (Marshall & Rossman, 2006).

In this study, the interviews were digitally recorded and transcribed verbatim. Field notes and transcriptions were read closely, coded, and analysed for common themes. The NVivo research software (Version 10 for Microsoft Windows) was used to carry out five main tasks in the analysis process. The first task was to use the software in managing the interview transcripts by organising them. Secondly, it was used to manage ideas in order to understand the conceptual and theoretical issues generated in the course of the study. Again, the software was used to query the data by posing several questions of the data and utilizing the software in answering these queries. Moreover, the software was used in creating visual models by creating by creating graphs to demonstrate the relationships between the conceptual, theoretical and empirical data. Finally, the NVivo was helpful in reporting by utilizing the data collected and the result found to formulate transcript reports about the study conducted.

The themes generated during the analysis of the transcripts were used to support the statistical data. The quantitative analysis provided data on socio-demographic characteristics of mothers, trends and patterns of exclusive breastfeeding, mothers' employment characteristics, and factors that influence exclusive breastfeeding. The qualitative analysis, on the other hand, provided

information on how mothers exclusively breastfeed and work, the experiences mothers as they engage in exclusive breastfeeding, and reasons for the trends produced by the quantitative data. This emphasised the complementary role of methods in the triangulation approach. The theories selected for the study viz. socialist feminism and symbolic interactionism were used as lenses in analysing and reporting the findings.

Validity and Reliability

Considering the choice of study design which combined both qualitative and quantitative methods of data collection some measures were put in place to ensure validity and reliability of the methods. These are discussed below.

Validity

According to Bhattacharjee (2012), validity refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure. For the quantitative component of the research, validity was ensured as follows:

Internal validity is the extent to which the effects detected in the study are a true reflection of reality rather than the result of the effects of extraneous variables (Burns & Grove, 1995). In this study, internal validity was ensured by pre-testing the instruments on a different group and also making sure that maturation did not take place on the field as the data collection only stretch over a few months.

Construct validity examines the fit between the conceptual definitions and operational definitions of variables (Burns & Grove, 1995). In this study, it was enhanced by training the field assistants to collect the data, pre-testing the

instruments and ensuring that the researcher personally collected most of the data as previously stated.

External validity is concerned with the extent to which study findings can be generalized beyond the sample used in the study (Burns & Grove, 1995). In this study, it was enhanced by the choice of mixed methods as incorporation of both qualitative and quantitative approaches ensures representativeness and higher response rates. Besides, the phenomenon under investigation was fairly homogeneous within the population.

A common 'validity threat' that is often discussed in qualitative inquiry and which was considered relevant in this study is the researcher's 'bias', preferably called 'subjectivity' in qualitative studies (Maxwell, 2005). It involves the possibility of obtaining data that fits or corroborates the researcher's prior notions, values, beliefs, or even theories. This is conceivable in view of the fact that 'value free' qualitative inquiry is hard if not impossible to achieve. What is important is for the qualitative researcher therefore is to recognise and take into account how his/her own values and preconceptions might have influenced the study's findings; and the range of measures/steps that were taken to tone down their impact (Patton, 2002). Validity and for that matter trustworthiness of the data was established by incorporating procedures designed to limit the researcher's bias. Fundamental elements of trustworthiness ensured in the current study were credibility, confirmability, and transferability. These are addressed below.

Credibility. The researcher was considered to be an instrument, a part of the research. Although bracketing the individual his personal related experiences is encouraged in qualitative research, some level of personal

involvement is appropriate. In this research, the researcher admitted to bias in professing the belief that breast milk is the optimal source of nutrition for infants during their first 6 months of life, that exclusive breastfeeding is constrained by mothers' employment in the formal sector and that the experience of exclusive breastfeeding while employed is often difficult and challenging to manage. The researcher acknowledged that his experiences are personal and separate from this research.

Confirmability. The researcher verified expressions made by the participants throughout the interviews to seek clarification and confirmation. Member checking was done with participants during the interviews as part of the constant comparison process, and this provided an element of support for verification of truth in the findings. The final transcripts were coded by the researcher and a research assistant separately and they were compared for consistency and thematic clarity.

Transferability. When studies are transferable, they are reasonably useful to colleague researchers with similar research problem and under similar milieu. Thus, any knowledge gained is transferable to similar populations irrespective of demographic features (Dahlgren, Emmelin, & Winkvist, 2007). Given how breastfeeding as a worldwide human practice is shaped by varied cultural values, the extent to which the present findings would be transferable is difficult to ascertain. However, measures to assess transferability or generalizability to other groups or settings were addressed by sharing preliminary findings with an outside group at a research conference as an oral presentation, and attendees' comments and impressions were documented by the researcher.

Reliability

Reliability is the quality of measurement method that suggests that the same data would have been collected each time in repeated observations of the same phenomena (Bhattacharjee, 2012). Reliability was assured by using the same instruments with the same set of questions for all the respondents. Attempts were also made to maintain the same degree of objectivity. Reliability was also ensured using field assistants who are non-medical staff, not mothers, so that they will not be biased in making assumptions about responses received.

For the qualitative aspect of the study, reliability was achieved by ensuring consistency. The whole idea of reliability in qualitative inquiry is problematic particularly because of the different layers of complexity associated with human social behaviour and the fluidity of our social world further makes claims or efforts for reliability complicated. Despite the intricacies, qualitative researchers have not abandoned hope in strengthening the reliability of their findings. A varying number of strategies thus exist to that end.

To ensure consistency in this study, the researcher took a number of steps during the interview stage, transcription stage, and the analysis stage. Leading questions for instance, were completely avoided in order to obtain unprejudiced responses and experiences of subjects. The researcher did not also hesitate to seek more clarifications on matters that were not clearly understood. Subsequently, the interview transcription was compared to the audio recorded oral discourse several times to ensure consistency.

Ethical Considerations

Approval from the University of Cape Coast Institutional Review Board (UCCIRB) was obtained with the ethical clearance number (UCCIRB/CHLS2015/04). Permission from Directors of Health Service, Accra Metropolis and Wa Municipality were obtained to access the hospitals. Mothers selected for this study were subjected to voluntary participation and they were guaranteed confidentiality and anonymity. Participants were surveyed and/or interviewed after their informed consent has been sought. The informed consent were sought and documented from each of prospective participant, in accordance with, and to the extent required by the UCCIRB.

All attempts were made to minimise risks. After the administration of the instruments, all lactating mothers who had taken part in the study received small baby gifts such as baby soaps, baby bibs and pampers. This was to show appreciation for their time and stories. However, participants were offered the option of forgoing the gifts.

CHAPTER SIX

EXCLUSIVE BREASTFEEDING KNOWLEDGE AND PRACTICES OF EMPLOYED MOTHERS

Introduction

The study examines exclusive breastfeeding practices among mothers engaged in formal sector employment in Ghana. As part of the objectives, the study explored the general exclusive breastfeeding knowledge and practices among mothers. This chapter therefore presents data to that effect. It begins by first, looking at the child welfare clinic (CWC) mothers attended, and the socio-demographic characteristics of the mothers and infant pair who engaged in the study. The chapter continues by exploring exclusive breastfeeding knowledge and practices among mothers alongside discussion of the findings using the literature and theories adopted for the study. The data presentation and analysis adopts a comparative approach using the study sites as the basis for comparison.

Child Welfare Clinics (CWCs) and Mothers selected

The mothers who engaged in the study were selected at various child welfare clinics in both study areas. A total of 12 and four child welfare clinics were selected in Accra Metropolis and Wa Municipality respectively as sites for recruiting mothers for the study. In all, 721 mothers (Accra Metropolis = 618; Wa Municipality = 103) with infant pair were selected as respondents for the study (Table 5). Of the 618 mothers recruited from Accra Metropolis, Princess Marie Louie Children's Hospital recorded the highest number of (13.4%) respondents followed by Ridge Hospital with almost 12 percent of the

respondents. On the other hand, fewer samples were recorded at hospitals in Nima (4.2%), Maamobi (6.5%) and Ussher Fort (6.5%).

Table 5:

Mothers selected at each CWC in the Study Sites

CWC in Accra Metropolis (n = 618)			CWC in Wa Municipality (n = 103)		
	F	%		F	%
PMLC Hospital	83	13.4	Regional Hospital	42	40.8
Ridge Hospital	72	11.7	Dobile Clinic	21	20.4
La General Hospital	65	10.5	Wa Sub Clinic	21	20.4
Achimota Hospital	59	9.5	Wa Market clinic	19	18.4
Kaneshie Polyclinic	52	8.4			
Adabraka Polyclinic	51	8.3			
Mamprobi Hospital	47	7.6			
James Town Hospital	42	6.8			
Dansoman Polyclinic	41	6.6			
Maamobi Hospital	40	6.5			
Ussher Hospital	40	6.5			
Nima Hospital	26	4.2			

Source: Field survey, Sika-Bright (2016)

Four CWCs were selected in Wa Municipality and this produced a sample of 103 mothers. Of the 103 mothers, almost 41 percent were selected from Wa Regional Hospital CWC. Dobile Clinic and Wa Sub Clinic accounted for almost 20 percent each of the sample size. The remaining mothers were selected from CWC in Wa Market Clinic (Table 5).

In-depth interviews were conducted with two mothers from each of the CWCs in all the study areas. These mothers were included in the survey after which they were invited for the in-depth interview.

Socio-demographic Characteristics of Mothers

The study sought the socio-demographic characteristic of the mothers. These characteristics have been extensively cited in literature as influential in predicting exclusive breastfeeding behaviour among mothers (Arora et al., 2000; De La Mora et al., 1999; Shahla, 2010; Wamani et al., 2005; Jacknowitz, 2006). The details are summarized in Table 6.

Of the 721 mothers who took part in the study, the majority, 618, which forms approximately 86 percent, were surveyed in Accra Metropolis while the remaining were surveyed in Wa Municipality. This is because Accra as the nation's capital is hugely populated and has a lot of CWCs which serve as sites for selecting the mothers. Wa Municipality on the other hand, is a mid-size city with fewer CWCs, as such; fewer respondents were recruited in the area.

The age categories of mothers from both study sites depicted quite a similar trend. Their ages ranged between 20 and 44 years, with the majority of mothers (almost 75%) aged between 25 and 34 years (Accra Metropolis = 72.5%; Wa Municipality = 86.4%) (Table 6). The least age category recorded in both study sites was that of respondents aged between 40-44 years. They constituted 5.7 percent and 1.9 percent in Accra Metropolis and Wa Municipality respectively.

A display of respondents' reported marital status as given in Table 6, indicates that the majority of mothers in both study sites were married, thus 87.4 percent of the 721 mothers (85.6% in Accra Metropolis; 98.1% in Wa Municipality). While 71 (11.5%) mothers in Accra Metropolis were cohabiting, none of the mothers in Wa Municipality was cohabiting.

Table 6:

Socio-demographic Characteristics of Employed Mothers

Characteristic	Accra Metropolis		Wa Municipality		Total	
	F	%	F	%	F	%
Age(years)						
20-24	49	7.9	8	7.8	57	7.9
25-29	275	44.5	46	44.7	321	44.5
30-34	173	28.0	43	41.7	216	30.0
35-39	86	13.9	4	3.9	90	12.5
40-44	35	5.7	2	1.9	37	5.1
Total	618	100.0	103	100.0	721	100.0
Marital Status						
Married	529	85.6	101	98.1	630	87.4
Cohabiting	71	11.5	0	0.0	71	9.8
Not in a union	11	1.8	1	1.0	12	1.7
Divorced	7	1.1	0	0.0	7	1.0
Widowed	0	0.0	1	1.0	1	0.1
Total	618	100.0	103	100.0	721	100.0
Level of Education						
Primary	31	5.0	8	7.8	39	5.4
JHS	37	6.0	9	8.7	46	6.4
SHS	67	10.8	15	14.6	82	11.4
Voc/Tech	51	8.3	7	6.8	58	8.0
Training	141	22.8	16	15.5	157	21.8
Tertiary	291	47.1	48	46.6	339	47.0
Total	618	100.0	103	100.0	721	100.0
Type of Employment						
Teacher	168	27.2	42	40.8	210	29.1
Bank worker	35	5.7	1	1.0	36	5.0
Health worker	96	15.5	19	18.4	115	16.0
Clerk, typist, cook	97	15.7	3	2.9	100	13.9
Cleaner	42	6.8	11	10.7	53	7.3
Sales agent	94	15.2	21	20.4	115	16.0
Manager/assistant	86	13.9	3	2.9	89	12.3
Security worker	0	0.0	3	2.9	3	0.4
Total	618	100.0	103	100.0	721	100.0
Type of Religion						
Not religious	15	2.4	2	1.9	17	2.4
Christianity	524	84.8	55	53.4	579	80.3
Islam	79	12.8	44	42.7	123	17.0
Traditional	0	0.0	2	1.9	2	0.3
Total	618	100.0	103	100.0	721	100.0
Ethnicity						
Akan	322	52.1	9	8.7	331	45.9
Ewe	75	12.1	0	0.0	75	10.4
Ga	117	18.9	0	0.0	117	16.2
Hausa	31	5.0	0	0.0	31	4.3
Waala	18	2.9	94	91.3	112	15.5
Dagomba	24	3.9	0	0.0	24	3.3
Others	31	5.0	0	0.0	31	4.3
Total	618	100.0	103	100.0	721	100.0

Source: Field survey, Sika-Bright (2016)

Approximately 2 percent and 1 percent of mothers in Accra Metropolis and Wa Municipality respectively were not in any union and a little over one percent of mothers in both study sites were divorced.

Information gathered on level of education of mother indicates similar trends in both areas. The results indicate that highly literate respondents. The level of education with the highest respondents in both study areas was tertiary. Almost 50 percent of the respondents in Accra Metropolis (47.1%) and Wa Municipality (46.6%) had attained some tertiary education. This is probably because the respondents were mothers employed in the formal sector and such employment requires some higher level of formal education. It is therefore not surprising that both study areas recorded lower figures (5% in Accra Metropolis and 7.8% in Wa Municipality) of respondents with primary education.

The type of mothers' employment is very critical to this study as it will help identify the categories of mothers who are mostly challenged by their employment as far as exclusive breastfeeding is concerned. This is against the backdrop that exclusive breastfeeding is difficult to practice when employed in the formal sector, but what is least known is how the employment-exclusive breastfeeding experience differs across the various employment categories. Mothers who participated in this study were therefore asked to indicate their type of formal employment. Their responses are summarised in Table 6.

Mother's reported employment was categorised as follows: teacher, bank worker, health worker, clerk/ typists/ cooks, manager/assistant, sales agent and security worker. Mothers who indicated that they were teachers were almost a third (29.1%) of the respondents and were more than mothers in other employment categories with Wa Municipal recording higher number of teachers

(40.8%) than Accra Metropolis (27.2%). The least (0.4 percent) employment category was recorded in Wa Municipality as security workers. The number of health workers and sales agents was quite high among the sample as they represented 16 percent respectively.

However, the proportion of health workers was higher in Wa Municipality (18.4%) than in Accra Metropolis (15.5%). Likewise, the proportion of sales agents among the Wa Municipality sample was a little higher (20.4%) than that of the Accra Metropolis (15.2%). However, the proportion of bank workers in Accra Metropolis (5.7%) was higher than that of Wa Municipality (1.0). Similar trends were recorded of the proportions of clerks typist/ cooks and managers/ assistants (Table 6). Meanwhile, there were more cleaners in Wa Municipality (10.7%) than in Accra Metropolis (6.8%) as far as the proportions of cleaners in relations to the samples in both study sites are concerned.

The majority of mothers in both study areas (Accra Metropolis, 84.8% and Wa Municipality, 53.4%) were Christians confirming Ghana as highly populated with Christians. Islamic mothers were higher in Wa Municipality (42.7%) than in Accra Metropolis (12.8%). This is also in line with the literature which indicates higher population of Muslims in northern Ghana. A little over 2 percent of the respondents in both study areas indicated that they were are not affiliated to any religion (non- religious). Meanwhile two mothers in Wa Municipality indicated that they were Traditionalists.

The results gathered on ethnic background of respondents indicate that Accra Metropolis is more heterogeneous than Wa Municipality. The study captured mothers in Accra Metropolis belonging to ethnic groups such as Akan

(52.1%), Ga (18.9%), Ewe (12.1%), Hausa (5%), Dagomba (3.9%) and Waala (2.9%). The data gathered from Wa Municipal indicates that the mothers who took part in the study were from two ethnic groups, Waala (91.3%) and Akan, (8.7%). The Waalas were in the majority because Wa Municipality is predominated by the Waala ethnic group.

Demographic Background of Infants

The study gathered data on the demographic characteristics of infants whose mothers took part in the study. The results indicated that the majority of the mothers surveyed in both study sites (83.9%) had a full-term (9 months) pregnancy before birth while 38 mothers (5.3%) gave birth pre-maturely. Approximately 11 percent were pregnant for more than nine months before giving birth. The majority of mothers (82.2% in Accra Metropolis and 93.2% in Wa Municipality) gave birth in government hospitals. While none of the mothers in Wa gave birth at home, as many as 13 mothers in Accra gave birth at home (Table 7).

The study also gathered data on the mode of delivery of the last baby and it showed that normal birth was majority (59.4%) among the mother in both study areas. However, there is a marked difference in the percentage recorded for Accra Metropolis and Wa Municipality. In other words, even though the majority of the mothers surveyed had normal birth, caesarean births was higher in Accra Metropolis (45.5%) than in Wa Municipality (17.5%). Data on birth order of current infant indicate that as many as 288 (39.9%) of all the infants (721) were firstborns, with mothers in Accra Metropolis having more firstborns (41.7%) than mothers in Wa Municipality (29.1%).

Table 7:

Infant Characteristics by Study Area

Characteristic	Accra		Wa		Total	
	Metropolis		Municipality			
	F	%	F	%	F	%
Length of pregnancy (months)						
>9	36	5.8	2	1.9	38	5.3
9	508	82.2	97	94.2	605	83.9
<9	74	12.0	4	3.9	78	10.8
Total	618	100.0	103	100.0	721	100.0
Place of birth						
Home	13	2.1	0	0.0	13	1.8
Govt. hospital	508	82.2	96	93.2	604	83.8
Priv. hospital	97	15.7	7	6.8	104	14.4
Total	618	100.0	103	100.0	721	100.0
Mode of delivery						
Normal birth	343	55.5	85	82.5	428	59.4
Caesarean	275	45.5	18	17.5	293	40.6
Total	618	100.0	103	100.0	721	100.0
Birth order of current infant						
1 st	258	41.7	30	29.1	288	39.9
2 nd	197	31.9	37	35.9	234	32.5
3 rd	105	17.0	25	24.3	130	18.0
4 th and above	58	9.4	11	10.7	69	9.6
Total	618	100.0	103	100.0	721	100.0
Age of current infant (months)						
1 - 2	79	12.8	13	12.6	92	12.8
3 - 4	83	13.4	39	37.9	122	16.9
5 - 6	456	73.8	51	49.5	507	70.3
Total	618	100.0	103	100.0	721	100.0

Source: Field survey, Sika-Bright (2016)

The majority of mothers surveyed for the study (70.3%) had infants aged 5-6 months, meanwhile, the proportion of infants in this age category was more in Accra Metropolis (73.8%) than in Wa Municipality (49.5%). Infants aged 3-4 months and 1-2 months also recorded 16.9 percent and 12.8 percent

respectively. However, the proportion of infants aged 3-4 months in Accra Metropolis was almost thrice (38%) of that in Wa Municipality (13.4%).

Exclusive Breastfeeding Knowledge among Employed Mothers

The study explored exclusive breastfeeding knowledge among employed mothers. Responses from all the mothers surveyed in both study areas indicated that they had ample knowledge about exclusive breastfeeding. Even those who were not practising exclusive breastfeeding defined it as giving only breast milk for 6 months, after which breastmilk alone was no longer adequate. Some respondents believed water was not recommended because it was not hygienic enough. The mothers were asked to share their understanding of exclusive breastfeeding and some of their responses are inserted here:

Q: What do you understand by exclusive breastfeeding?

R: Exclusive breastfeeding is feeding your baby with breastmilk without any food for six months (A 27 year old Teacher in Wa Municipality).

R: Exclusive breastfeeding is giving your child only breastmilk for six months without any other food (A 34 year old Nurse in Accra Metropolis).

R: I understand exclusive breastfeeding as when the baby is given breastmilk for six months, I mean from the time the child is born to six months. You don't have to add anything ooo (A 33 year old clerk in Accra Metropolis).

Falling out of most of their responses is the fact that exclusive breastfeeding is understood by the mothers as giving infants breastmilk alone for six months and

this confirms the WHO's (2012) definition of exclusive breastfeeding. It is understood that the mothers were largely literate and workers in the formal sector as such will have some information on exclusive breastfeeding.

The study further probed their sources of information on exclusive breastfeeding. Their responses have been categorised into four main sources, hospital/doctor/clinical nurse, the media, family and friends. The responses reveal that mothers have multiple sources of information on exclusive breastfeeding. Their responses have been extracted and presented in Table 8.

Table 8:

Mother's Sources of Exclusive Breastfeeding Information

Sources	Accra Metropolis		Wa Municipality	
	F	%	F	%
Hospital /doctors/nurse	588	95.1	88	85.4
Media	259	41.9	60	58.3
Family	138	22.3	24	23.3
Friends	75	12.1	23	22.3

Source: Field survey, Sika-Bright (2016)

The majority of mothers in both study sites identified hospital/doctors/nurses as their source of information on exclusive breastfeeding. Thus, 95 percent of mothers in Accra Metropolis compared to 85 percent of mothers in Wa Municipality had hospital/doctors/nurses as one of their sources of information on exclusive breastfeeding. The media was also an important source in this regard as more mothers in both settings (41.9% in Accra Metropolis and 58.3% in Wa Municipality) rely on the media for information

on exclusive breastfeeding (Table 8). It was realised that friends were least regarded as being the source of exclusive breastfeeding information for the mothers in both study areas. However, mothers in Wa Municipality were slightly likely to consult friends (22.3%) than mothers in Accra Metropolis (12.1%).

As indicated above, the hospital including doctors and nurses were seen as the major sources of information on exclusive breastfeeding for mothers. This emphasises the enormous role played by doctors and nurses thereby confirming the results of various studies that have looked at this phenomenon (See Aidam et al., 2005; Garner, Ratcliff, Thornburg, Wethington, Howard & Rasmussen, 2016; Mogre, Dery & Gaa, 2016; Otoo et al., 2009; Pletta et al., 2000). According to Mogre et al. (2016), health professionals encourage breastfeeding mothers to seek support in times of difficulties. Otoo and her colleagues (2009) also reported that mothers identified the hospital either antenatal or post natal as their main source of breastfeeding information. Pletta et al. (2000) also mentioned in their studies that doctors were significant sources of information on breastfeeding for mothers and that mothers who were advised by doctors were much more likely to initiate breastfeeding regardless of ethnic or economic diversity.

This finding also confirms that of another study by Parrilla-Rodriguez et al. (2001) who found out that doctors and other health workers were important sources of information of exclusive breastfeeding for mothers. Aidam et al. (2005) also found out in Ghana that health workers in hospitals and polyclinics were the main source of exclusive breastfeeding information. In Ghana, doctors and clinical nurses are responsible for health education in the government

hospitals, polyclinics and also in the communities. They are also the main pre- and postnatal breastfeeding educators although other nurses or nurse midwives can also educate pregnant and lactating women in the hospital if they have been trained in breastfeeding counselling. Most government hospitals are baby friendly; it was therefore not surprising that hospital deliveries were higher among the mothers who participated in the study.

This finding can also be appreciated through the lenses of the theoretical frameworks informing the study. In symbolic interactionists terms for instance, health workers/doctors and the media who were the main sources of infant feeding information, are seen as generalised other for breastfeeding mothers. These 'generalized others', in the most abstract sense, is the view of relevant rules and roles of society as a whole (Bailey, 2001). It is mostly understood through the application of breastfeeding policies that affect the society of a breastfeeding mother.

The study further explored the nature of information the mothers obtained from their mentioned sources. This was necessary because such information were likely to contribute to mothers' understanding and knowledge of exclusive breastfeeding and thereby influence their breastfeeding behaviour.

As indicated earlier, most of the mothers obtained exclusive breastfeeding information from the hospital, either at the antenatal or postnatal pediatric clinics. In keeping with WHO recommendations (WHO, 2012), mothers indicated that, they were advised to exclusively breastfeed for the first 6 months, followed by continued breastfeeding up to 2 years with appropriate complementary feeding. The following responses made by some respondents illustrate the type of breastfeeding information received prior to delivery. A 32-

year old banker in Wa who identified the doctor as her source of information on exclusive breastfeeding said:

The doctor told me to feed my baby with only breastmilk until she is six months old...he[doctor] added that I should not even give her water.

A 27 year old teacher in Accra who reported her husband as her source of information on exclusive breastfeeding also said:

My husband has been telling me all this while to exclusively breastfeed my boy [infant]. He is so crazy about it that he supplies me information about exclusive breastfeeding from the internet.

Another mother who identified the media as her source of information on exclusive breastfeeding expressed that:

I watched it in a TV [television] advert. The nurse in the advert said mothers must breastfeed their newly borns until they are six months old (A 30 year old clerk in Accra).

Mothers were asked to indicate their agreement with the information on exclusive breastfeeding they had received from their various sources. This is because mothers' agreement to such information could trigger some behavioural adherence to the exclusive breastfeeding practice. Their responses have been summarised in Table 9. Of the 721 mothers from both study areas, the majority (92.7%) were in agreement with the information they received in exclusive breastfeeding. However, as many as 40 mothers, representing 5.5

percent of the total mothers in both study areas disagree with the information they received. Thirteen mothers remained neutral.

Table 9:

Mothers' Agreement with Exclusive Breastfeeding Information Received

Level of Agreement	Accra Metropolis		Wa Municipality		Total	
	F	%	F	%	F	%
Agree	569	92.1	99	96.1	668	92.7
Disagree	37	6.0	3	2.9	40	5.5
Neutral	12	1.9	1	1.0	13	1.8
Total	618	100.0	103	100.0	721	100.0

Source: Field survey, Sika-Bright (2016)

A close look at the data distribution among the study areas gives the indication that a slightly higher proportion of mothers in Wa Municipal (96.1%) agree with the exclusive breastfeeding information than that of mothers in Accra Metropolis (92.1%). On the other hand, the proportion of mothers in Accra Metropolis who disagreed with exclusive breastfeeding information they received was approximately twice higher (6.0%) than that in Wa Municipality (2.9%).

In explaining their responses as given in Table 9, mothers who indicated that they agree with the exclusive breastfeeding information they received acknowledged that, the practice of exclusive breastfeeding makes infants grow well and prevents them from falling sick. Some of their expressions were:

I agree [to the EBF information received] because it helped my child to grow healthy without falling sick (A 30 year old teacher in Wa Municipality).

For me, exclusive breastfeeding helps children to grow well and also prevent them from falling sick frequently.

The child grows faster (A 41 year old banker in Accra Metropolis).

On the other hand, those who disagreed with the information they received about exclusive breastfeeding gave the explanations that breastmilk alone for six months is not enough for the baby and that the baby needs to eat other foods to grow well. For instance a 36 year old cleaner in Wa Municipality expressed that:

I disagree because only the breastmilk is not okay...the baby needs to eat more so he can grow better.....for me I add some other foods".

Another mother in Accra Metropolis mentioned that:

This exclusive breastfeeding is something, it's not enough for my child, I always give her something else (A 27 year old assistant manager).

The research data collection instrument included six "true" or "false" statements to assess mothers' knowledge about exclusive breastfeeding. The responses to these questions are presented in Table 10. It was found that the majority (91%; n=656) of mothers surveyed in both study sites believed that exclusive breastfeeding helps infants grow faster than other infant feeding practices. Almost the same proportion of mothers in both study areas (Accra, 91.1%; Wa Municipality, 90.3%) were of this belief.

Table 10:

Statement about mothers' knowledge and perceptions on exclusive breastfeeding

Statement	Response	Accra		Wa		Total	
		Metro		Muni			
		F	%	F	%	F	%
EBF helps infants to grow faster than other infant feeding practices	True	563	91.1	93	90.3	656	91.0
	False	55	8.9	10	9.7	65	9.0
EBF helps mothers to lose weight after pregnancy	True	523	84.6	87	84.5	610	84.6
	False	95	15.4	16	15.5	111	15.4
EBF helps the uterus to return to its pre- pregnancy state more quickly	True	545	88.2	84	81.6	629	87.2
	False	73	12.8	19	18.4	92	12.8
EBF provides infants with the same nutrients as formula feeding	True	37	6	18	17.5	55	7.6
	False	581	94	85	82.5	666	92.4
EBF provides all the essential nutrients for infants.	True	558	90.3	94	91.3	652	90.4
	False	60	9.7	9	8.7	69	9.6
EBF best immunizes infants against all illness	True	599	96.9	91	88.3	690	95.7
	False	19	3.1	12	11.7	31	4.3

Source: Field survey, Sika-Bright (2016)

When it comes to the knowledge that exclusive breastfeeding helps mothers to lose weight after pregnancy, the majority of mothers from both study areas (84.6%) were aware, with the same proportion of mothers in each study area attesting to this knowledge (Table 10).

Again, the majority (87.2%) of mothers who took part in the study confirmed the statement that EBF helps the uterus to return to its pre-pregnancy state more quickly although the proportion mothers in Accra Metropolis (88.2%) was somewhat slightly higher than that of Wa Municipality (81.6%).

In addition, the majority of mothers from both study sites constituting 92.4 percent ($n=666$) believed that exclusive breastfeeding and formula feeding do not provide the same nutrients for infants. Likewise, the proportion of mothers confirming this knowledge in Accra Metropolis (94%) was higher compared to the 82.5 percent recorded in the Wa Municipality. The majority (90.4%) of the respondents agreed with the statement "EBF provide all the essential nutrients for infants". However, the response rate from mothers in Accra Metropolis was 1 percent less than the case in Wa Municipality. Similarly, almost all but except few mothers (95.7%; $n = 690$) agreed with the assertion that exclusive breastfeeding best immunizes infants against all illness; hence provides the child with some health benefits. Comparing the responses from both study sites, the proportion of mothers in the Accra Metropolis were almost 10 percent more (97%) than that of mothers in the Wa Municipality (88%) to admit that exclusive breastfeeding best immunizes infants against all illness. The data as shown in Table 10 really confirms the fact that the mothers surveyed were very knowledgeable about exclusive breastfeeding as a mode of feeding infants.

Exclusive Breastfeeding Patterns of Employed Mothers

The mothers who took part in the study were employed mothers with infant not older than six months at the time of the study. Infants at this age are expected to be exclusively breastfed (WHO, 2012). However, the situation was different as summarised in Table 11.

Table 11:

Exclusive breastfeeding practices of working mothers by study area

Variable	Response	Accra		Wa		Total	
		Metropolis		Municipality		F	%
Exclusively breastfeeding status	Yes	96	15.5	78	75.7	174	24.1
	No	522	84.5	25	24.3	547	75.9
	Total	618	100	103	100	721	100
Current feeding practice	Breastfeeding	96	15.5	78	75.7	174	24.1
	Formula feeding	27	4.4	1	1.0	28	3.9
	Mixed feeding	495	80.1	24	23.3	519	72.0
	Total	618	100	103	100	721	100
Age at which other foods were will be introduced	1-2months	30	4.9	0	0.0	30	4.2
	3-4month	285	46.1	2	1.9	287	39.8
	5-6months	212	34.3	7	6.8	219	30.4
	Above 6months	91	14.7	94	91.3	185	25.6
	Total	618	100	103	100	721	100
Fluids/foods (to be) introduced within the first six months*	Formula	97	15.7	6	5.8		
	Water	350	56.6	27	26.2		
	Cereals/porridge	322	52.1	23	22.3		
	Medication/syrup	250	40.5	40	38.8		
	Fruit juice	237	38.3	16	15.5		

*This question elicited multiple responses

Source: Field survey, Sika-Bright (2016)

Results in Table 11 give a description of exclusive breastfeeding patterns of employed mothers by the study area. It came out that, only about a quarter (174 mothers, representing 24.1%) of the total number of mothers who participated in the study were exclusively breastfeeding. The remaining majority 547(75.9%) were not exclusively breastfeeding. The data further

shows some contrasting variations when it comes to exclusive breastfeeding according to study area. The result shows that the majority of employed mothers in Wa Municipality (75.7%) exclusively breastfeed their infants than employed mothers in Accra Metropolis (15.5%).

These findings confirm the nation's trend recorded for Ghana over the years by the Ghana Statistical Services (GSS, 2015; 2009; 2003) which gives an indication that mothers in Upper West region where Wa Municipality is located practice exclusive breastfeeding at a higher rate than mothers in any other region in Ghana. On the other hand, least rates have also been recorded in Accra over the years (see GSS, GHS & ICF International, 2015; 2011; 2008; 2003). This is the more reason why these sites were very appropriate for a study like this so as to examine the factors at play in producing these trends.

The current infant feeding practices of the mothers were looked at to find out what the employed mothers were doing as far as feeding their less than six months old infant was concerned. About 72 percent of the 721 mothers surveyed for this study were practicing mixed feeding. In looking at the study area distribution, the majority of employed mothers in Accra Metropolis (80.1%) were mixed feeding compared to only 23.3 percent mixed feeding among employed mothers in Wa Municipality. The number of mothers who formula fed their infants was low (3.9%) among all the mothers meanwhile, formula feeding in Accra Metropolis was approximately four times higher (4.4%) the formula feeding in Wa Municipality (1.0%) (Table 11).

The study found out whether employed mothers were feeding their infants with other foods other than breastmilk in the first six months. This was necessary to bring to light what non-exclusively breastfeeding mothers were

doing as far as feeding their infants was concerned. Mothers were asked to select as many fluids and/or foods that apply. The summaries presented in Table 11 show that 322 employed mothers in Accra representing 52.1 percent introduced or plan to introduce their infants to cereals or porridge in the first six months. Another 56.6 percent of mothers in Accra Metropolis introduced or plan to introduce their infants to water. Medication and fruit juice were or will be introduced by 40.5 percent and 38.3 percent mothers in Accra Metropolis respectively to their infants. The case in Wa Municipality was quite different; whereas introduction of water was high among mothers in Accra Metropolis (56.6%), introduction of medication/syrup was high in Wa Municipality (38.8%). Another 26.2 percent of employed mothers in Wa Municipality introduced or planned to introduce their infants to water with only 5.8 percent introducing their infants to formula. In Wa Municipality, only 15.5 percent introduced or planned to introduce their infant to fruit juice.

The age at which other foods other than breastmilk were or will be introduced was also examined among the employed mothers. The general outlook gave the picture that most mothers introduced or plan to introduce their infants to other foods by the age 3 months and above. While none of the mothers in Wa Municipality agreed to introduce or introduced their infants to other foods by age two months and below, almost five percent of their counterparts in Accra Metropolis have or agreed to introduce their infants in the same age category to other foods. Another realisation was that as many as 46.1 percent of mothers in Accra, compared to only two percent in Wa gave or plan to give their infants aged 3 to 4 months other foods. The majority of mothers in Wa (91.4%) mentioned that they introduced or will introduce their infants when

they are above six months compared to approximately 15% of mothers with similar response in Accra Metropolis (Table 11). These variations in feeding practices among mothers in the two study areas could be linked to the various national statistics which indicates that exclusive breastfeeding is low in Accra and very high in Wa (See GSS, 2015; GSS, 2011).

Background characteristics and Exclusive Breastfeeding

Background characteristics such as mothers' socio-demographic and infant characteristics were matched against the exclusive breastfeeding status of mothers. The purpose was to explore the existence of any association or otherwise between the dependent variable (exclusive breastfeeding), and the background variables. The chi-square test statistic was utilised in this regard. To begin with, exclusive breastfeeding was examined according to mothers' venue of seeking child welfare services (CWC). This was to find out which child welfare clinics have more mothers exclusively breastfeeding. Exclusive breastfeeding was generally low in Accra Metropolis but was high in Wa Municipality.

The mothers who attend Princess Marie Louis Children (PMLC) hospital have the highest exclusive breastfeeding status (24.1%) while none of the mothers who attend Mamprobi have exclusive breastfeeding status. This means that all mothers who attend Mamprobi clinic were not exclusively breastfeeding. Only about a tenth (10%) of employed mothers attending CWCs at Dansoman and Maamobi, were exclusively breastfeeding (Table 12). The situation in Wa Municipal was different as the majority of all the mothers visiting the selected CWCs were practicing exclusive breastfeeding.

Table 12:

Exclusive Breastfeeding Practice by CWC Attended by Mothers

CWC	EBF status		Total	χ^2 value	P value
CWCs in Accra	EBF	Non EBF	618(%)	17.59	0.092
	%	%			
PMLC hospital	24.1	75.9	83(100)		
Adabraka	19.6	80.4	51(100)		
Kaneshie	19.2	80.8	52(100)		
La General	18.5	81.5	65(100)		
Ussher Hospital	17.5	82.5	40(100)		
Achimota	16.9	83.1	59(100)		
James town	14.3	85.7	42(100)		
Ridge Hospital	13.9	86.1	72(100)		
Nima	11.5	88.5	26(100)		
Maamobi	10.0	90.0	40(100)		
Dansoman	9.8	90.2	41(100)		
Mamprobi	0.0	100.0	47(100)		
CWCs in Wa	EBF	Non EBF	103(%)	3.55	0.314
	%	%			
Wa Regional H	69.0	31.0	42(100)		
Dobile	90.5	9.5	21(100)		
Wa Sub	76.2	23.8	21(100)		
Wa Market	73.7	26.3	19(100)		

Source: Field survey, Sika-Bright (2016)

The highest exclusive breastfeeding rate in Wa was recorded among mothers attending Dobile Clinic for child welfare services while the lowest was recorded among those attending Wa Regional Hospital (69%) (Table 12). The data further portrayed that there was no relationship between the type of CWC attended and the practice of exclusive breastfeeding (0.092=Accra Metropolis; 0.317=Wa Municipality).

Exclusive breastfeeding and mothers' socio-demographic characteristics

This section examines the association of socio-demographic characteristics on exclusive breastfeed practice among employed mothers. Results from the two study sites are presented in percentages in Table 13. The results from both Accra Metropolis and Wa Municipality show that exclusive breastfeeding is not significantly associated with most of the mothers' background variables including age, marital status, and level of education.

There was no significant association between the age of employed mothers and exclusive breastfeeding practice (0.085 in Accra Metropolis and 0.4 in Wa Municipal). This means that mothers' age as a variable per this study is not significantly associated to exclusive breastfeeding. This contradicts studies done by McDowell, Wang and Kenedy-Stephenson (2010) who found significant association between mothers age and exclusive breastfeeding where older mothers were more likely to choose exclusive breastfeeding than younger mothers. Arora et al. (2000) had also reported that, older women were more likely to exclusively breastfeed. Volpe and Bear (2000) further added that young mothers are unlikely to breastfeed. This study does not confirm these claims as the relationship between exclusive breastfeeding and mothers' age was not statistically significant.

Similarly, there is no significant association between marital status and exclusive breastfeeding ($p = 0.2$) in Accra Metropolis, but it was noted that, the proportion of exclusive breastfeeding mothers who were cohabiting (22.5%) was higher than that of married (14.7%) and not in a union mothers (18.2). Meanwhile, none of the divorced employed mothers was exclusively breastfeeding.

Table 13:

Exclusive Breastfeeding by Mothers' Background Characteristics

Characteristic	Accra Metropolis						Wa Municipal				
	Yes %	No %	Total	χ^2 value	<i>p</i> value		Yes %	No %	Total	χ^2 value	<i>p</i> value
Exclusively breastfeeding (EBF) status											
Age of Mother			618	8.19	0.085				103	4.04	0.401
20-24	18.4	81.6	49				100	0.0	8		
25-29	18.5	81.5	275				76.1	23.9	46		
30-34	13.3	86.7	173				69.8	30.2	43		
35-39	7.0	93.0	86				75.0	25	4		
40-44	20.0	80.0	35				100	0.0	2		
Marital status				4.25	0.236					6.36	0.042
Married	14.7	85.3	529				77.2	22.8	101		
Cohabiting	22.5	77.5	71				0.0	0.0	0.0		
Not in a union	18.2	81.8	11				0.0	100	1		
Divorced	0.0	100	7				0.0	0.0	0.0		
Widowed							0.0	100	1		
Level of education				8.95	0.111					5.58	0.349
Primary	12.9	87.1	31				87.5	12.5	8		
JHS	27.0	73.0	37				66.7	33.3	9		
SHS	19.4	80.6	67				80.0	20.0	15		
Voc/Tech	23.5	76.5	51				42.9	57.1	7		
Training col	13.5	86.5	141				81.3	18.8	16		
Tertiary	13.1	86.9	291				77.1	22.9	48		
Type of work				27.86	0.000					7.84	0.347
Teacher	7.1	92.9	168				81	19	42		
Bank Worker	17.1	82.9	35				100	0	1		
Health worker	19.8	80.2	96				68.4	31.6	19		
Clerk, cook	7.2	92.8	97				66.7	33.3	3		
Cleaner	28.6	71.4	42				90.9	9.1	11		
Sales agent	24.5	75.5	94				66.7	33.3	21		
Manager/assistant	19.8	80.2	86				100	0.0	3		
Security worker							33.3	66.7	3		
Religious affiliation				20.95	0.000					0.44	0.507
Non religious	13.3	86.7	15				100	0.0	2		
Christianity	13.0	87.0	524				74.5	25.5	55		
Islam	32.9	67.1	79				75.0	25.0	44		
Traditional							100	0.0	2		

Source: Field survey, Sika-Bright (2016)

In Wa Municipality on the other hand, all exclusive breastfeeding mothers (77.2%) were married and this makes marital status the only variable

that is significantly ($p = 0.042$) associated to exclusive breastfeeding in Wa Municipality though almost all the cells are empty (Table 13). This gives the impression that employed mothers who are married are more likely, than mothers belonging to other marital statuses, to exclusively breastfeed their infants in Wa Municipality. This finding corroborates finding of Tampah-Naah and Kumi-Kyereme (2013) and Scott and Binns (1999) who also reported similar findings. In a study on determinants of exclusive breastfeeding among mothers in Ghana, Tampah-Naah and Kumi-Kyereme found an association between mothers' marital status and exclusive breastfeeding with a higher percentage of exclusive breastfeeding mothers being married (Tampah-Naah & Kumi-Kyereme, 2013).

The distribution of exclusive breastfeeding among the educational level of employed mothers revealed that there is no significant association between the employed mothers' level of education and their practice of exclusive breastfeeding in both study areas. Nevertheless, employed mothers with some Junior High School (JHS) qualification topped the exclusive breastfeeding category in Accra Metropolis with exclusive breastfeeding rate of 27 percent. The least exclusively breastfeeding mothers in this category were those with some primary education (12.9%). Unlike the situation in Accra Metropolis, employed mothers in Wa Municipality with some primary education were exclusively breastfeeding more (87.5%) than mothers in the other educational sub-groups. The least educational group exclusively breastfeeding in Wa Municipality was employed mothers with vocational and technical education recording 42.9%.

On the issue of type of mothers' work and exclusive breastfeeding, the relationship was significant in Accra Metropolis (0.000) but not in Wa Municipality (0.507). Thus, unlike Accra Metropolis, the type of mothers' employment has no significant influence on exclusive breastfeeding practice in Wa Municipality. A close observation of the data in the Table portrays that almost a third of mothers who work as cleaners (28.6%) in Accra Metropolis were exclusively breastfeeding and their rate was higher than that of mothers in others employment categories. Teachers in Accra were the least exclusively breastfeeding (7.1%) category as far as mothers' employment is concerned. In Wa Municipality, employed mothers in the security services were the least exclusive breastfeeding category with only a third (33.3%) exclusively breastfeeding. However, all mothers working as bankers, and managers were breastfeeding exclusively.

Comparing the results of exclusive breastfeeding and maternal employment of the two study areas portray opposing pictures. Maternal employment was significantly associated with exclusive breastfeeding in Accra Metropolis and this confirms several results of infant feeding research conducted on determinants of exclusive breastfeeding (See Baker & Milligan, 2008; Danso, 2014; Huerta et al., 2011; Ogunba, 2015; Podoval & Podoval, 2009; Saaka et al., 2012). These and other studies confirm that mothers' employment influences exclusive breastfeeding. Meanwhile the results from Wa Municipality did not show a significant relationship between mothers' employment and exclusive breastfeeding.

A significant association was discovered among employed mothers' religious affiliation vis a vis exclusive breastfeeding in Accra Metropolis.

Employed mothers in Accra affiliated to the Islamic religion as per this study recorded a higher proportion of exclusively breastfeeding (32.9%) than employed mothers who were Christians (13%) and non religious (13.3%). On the other hand, religious affiliation of employed mothers in Wa Municipality was not significantly related to exclusive breastfeeding. However, employed mothers who were Christians in both study areas (Accra=13% and Wa=74.5%) were the least exclusive breastfeeding religious category.

On the whole, it could be said that, though the background characteristics of employed mothers in both study areas are somehow related to exclusive breastfeeding, only few were significant. For instance, type of mothers' work and religious affiliation were significantly associated with exclusive breastfeeding in Accra Metropolis whiles only marital status was significantly associated with exclusive breastfeeding in Wa Municipality.

Logistic regression on exclusive breastfeeding and mothers' background characteristics

Direct logistic regression was performed to assess the impact of mothers' background characteristics on the likelihood that employed mothers (respondents) would exclusively breastfeed their infant (Table 14). This was very necessary to enable the researcher make targeted recommendations for policy attention.

The model contains five background characteristics of the mother (age, marital status, level of education, religious affiliation and type of employment). As shown in Table 14, none of the mothers' background characteristics in Wa Municipality made a statistically significant contribution to the model. The case in Accra Metropolis was different as one of the mothers' background

characteristics (type of employment) made a statistically significant contribution to the model.

Table 14:

Logistic Regression on Exclusive Breastfeeding and Mothers' Background Characteristics

Variables	Accra Metropolis				Wa Municipality			
	p-value	Odd Ratio	95.0% C.I. for EXP(B)		p-value	Odd Ratio	95.0% C.I. for EXP(B)	
			Lower	Upper			Lower	Upper
Age								
20-24 (ref)		1				1		
25-29	.226	1.763	.704	4.412	.999	.000	.000	.000
30-34	.404	1.572	.543	4.551	.999	.000	.000	.000
35-39	.246	.469	.131	1.686	.999	.000	.000	.000
40-44	.209	2.305	.626	8.489	1.000	1.834	.000	.000
Marital Status								
Married (ref)		1				1		
Cohabiting	.413	1.399	.626	3.126	1.000	.000	.000	.000
Not in a union	.890	1.131	.199	6.424	1.000	.000	.000	.000
Divorced	.999	.000	.000	.000				
Level of education								
Primary (ref)		1				1		
JHS	.061	4.058	.936	17.589	.378	.274	.015	4.857
SHS	.130	2.817	.736	10.773	.927	1.143	.066	19.948
Voc/Tech	.198	2.351	.640	8.632	.067	.061	.003	1.211
Training	.858	1.119	.326	3.844	.809	.698	.038	12.766
Tertiary	.728	1.238	.373	4.111	.550	.454	.034	6.031
Religious affiliation								
Non-religious (ref)		1				1		
Christianity	.610	.649	.123	3.421	1.000	1.985	.000	.000
Islam	.278	2.701	.448	16.278	1.000	1.000	.000	.000
Traditional					1.000	2.259	.000	.000
Type of employment								
Teacher (ref)		1				1		
Bank Worker	.226	2.068	.637	6.710	1.000	2.012	.000	.000
Health worker	.008	3.186	1.356	7.487	.096	.245	.047	1.285
Clerk, typist, cook	.758	1.174	.423	3.259	.263	.173	.008	3.737
Cleaner	.088	2.492	.872	7.120	.378	3.425	.222	52.807
Sales agent	.000	4.949	2.179	11.238	.158	.310	.061	1.575
Manager	.002	3.895	1.643	9.234	1.000	3.993	.000	.000
Security worker					.099	.076	.004	1.618

Source: Field survey, Sika-Bright (2016)

A closer look at the type of mothers' employment in Accra Metropolis, as far as the model is concerned, gives the indication that mothers who were health workers (0.008), sales agents (0.000) and managers (0.002) made a statistically significant contribution to the model. The strongest predictor of exclusive breastfeeding among the employed mothers, as far as category of mothers' type of employment is concerned, was mothers who worked as sales agents. They recorded an odd ratio of 4.949, with 95% confidence interval (2.179-11.238) with a p -value of 0.000 thus indicating that they were almost five times more likely to breastfeed exclusively compared to those who were teachers. Other categories of mothers' type of employment that predicted exclusive breastfeeding were managers and health workers; they were almost four times (3.9) and three times (3.2) respectively more likely to breastfeed exclusively compared to mothers who were teachers (Table 14).

Exclusive breastfeeding and infants' characteristics

Infants' background characteristics have been shown to influence mothers' exclusive breastfeeding (Labbock, 2001; Denis, 2002; Wambach et al., 2005). In this study the background characteristics of infants were examined with the chi-square test to find out if they have some associations with employed mothers' exclusive breastfeeding practice in both study areas. Table 15 summarises the results in this regard.

Table 15:

Exclusive Breastfeeding According to Infant Characteristics by Study Site

University of Cape Coast <https://ir.ucc.edu.gh/xmlui>

Characteristic	EBF status									
	Accra Metropolis Total=618 %					Wa Municipal Total=103%				
	EBF %	Non- EBF %		χ^2 value	P Value	EBF %	Non- EBF %		χ^2 value	p value
Length of pregnancy				3.55	0.169				7.54	0.230
<9 months	13.9	86.1	36(100.0)			0.0	100.0	2(100.0)		
9 months	14.6	85.4	508(100.0)			76.3	23.7	97(100.0)		
>9 months	23.0	77.0	74(100.0)			100.0	0.0	4(100.0)		
Mode of delivery				5.74	0.017				0.146	0.703
Normal birth	18.7	81.3	343(100.0)			76.5	23.5	85(100.0)		
Caesarean	11.6	88.4	275(100.0)			72.2	27.8	18(100.0)		
Birth order of infant				6.28	0.099				2.98	0.394
First	18.6	81.4	258(100.0)			76.7	23.3	30(100.0)		
Second	11.2	88.8	197(100.0)			67.6	32.4	37(100.0)		
Third	13.3	86.7	105(100.0)			80.0	20.0	25(100.0)		
More than three	20.7	79.3	58(100.0)			90.9	9.1	11(100.0)		
Age of infant				54.35	0.000				28.57	0.000
1-2months	36.7	63.3	79(100.0)			100.0	0.0	13(100.0)		
3-4months	30.1	69.9	83(100.0)			97.4	2.6	39(100.0)		
5-6months	9.2	90.8	456(100.0)			52.9	47.1	51(100.0)		

Source: Field survey, Sika-Bright (2016)

The infant characteristics used were length of pregnancy, mode of delivery, birth order of infant and age of infant. Mode of delivery of infant (p -value = 0.01) and age of infant (p -value = 0.0) had significant relationship with exclusive breastfeeding among employed mothers in Accra Metropolis whiles the age of infant was the only infant characteristic that had significant relationship (p -value = 0.0) with exclusive breastfeeding among employed mothers in Wa Municipality (Table 15).

In Accra Metropolis, it was realised that, the proportion of exclusive breastfeeding mothers was high among mothers who gave birth after nine months (23%), who had normal delivery (18.7%), who had more than three children (20.7%) and who had infants who were aged 1 to 2 months (36.7%) compared to that of the remaining categories.

Employed mothers who gave birth earlier than nine months recorded the least proportion of exclusive breastfeeding (13.9%) in that category, likewise those who gave birth through caesarean section (11.6%). Meanwhile, looking at birth order of infants, the proportion of exclusive breastfeeding mothers was lowest among second-born infants (11.2%), likewise those who were aged 5 to 6 months. During the fifth and sixth months, most mothers usually stop breastfeeding exclusively due to the introduction of complementary foods.

The situation in Wa Municipality was quite different. Apart from the infant age which had significant relationship with exclusive breastfeeding among employed mothers (p -value = 0.000), the other variables examined in this regard were not significantly related to exclusive breastfeeding. However, comparing the Wa Municipal results to that of Accra Metropolis in this regard, certain similarities are discovered.

In both study areas, exclusive breastfeeding was high among the same categories of mothers in each of the infant characteristics, though the rates were far higher in Wa Municipality than in Accra Metropolis. For instance, exclusive breastfeeding was high among employed mothers who gave birth after nine months (100%), had normal delivery (76.5%), with more than three children (90.9%) and with infants aged 1 to 2 months (100%).

The infants' age was examined with reference to mothers' current feeding practice. This was done to find out what mothers were giving to their infants at the various ages within the first six months.

Table 16:

Baby's Age by Employed Mothers' Feeding Practice

Characteristic	Feeding practice			Total (%)	χ^2 value	p- value
	Breast milk alone	Formula alone	Mixed feeding			
Accra Metropolis	(F=96)	(F=27)	(F=495)	(n=618)	68.71	0.000
	%	%	%	%		
Infant's age						
1-2months	36.7	8.9	54.4	79(100)		
3-4months	30.1	8.4	61.4	83(100)		
5-6months	9.2	2.9	87.9	456(100)		
Wa Municipality	(F=78)	(F=1)	(F=24)	(n=103)	28.58	0.000
	%	%	%	%		
Infant's age						
1-2months	100	0.0	0.0	13(100)		
3-4months	97.4	0.0	2.6	39(100)		
5-6months	52.9	2.0	45.1	51(100)		

Source: Field survey, Sika-Bright (2016)

The results is summarised in Table16. It was found out in Accra that about 37 percent and nine percent of infants aged 1 to 2 months and 5 and 6 months respectively were exclusively breastfed. Infants at these ages are still

expected to be exclusively breastfed especially those aged 1 to 2 months. The exclusive breastfeeding rate reported in this study for infants aged 2 months and below in Accra Metropolis is quite below that of the national data which put the rate at almost 77% (GSS, 2015, p 161). Generally, exclusive breastfeeding practice was low in Accra Metropolis with a lot of mothers (495 out of 618) practicing mixed feeding. The relationship between infants' age and mothers' current feeding practice in Accra Metropolis was significant ($p\text{-value}=0.000$); implying that the age of the infant had a statistically significant association with what mothers will feed them.

Like the situation in Accra Metropolis, the relationship between infants age and mothers' current feeding practice was significant ($p\text{-value}=0.000$) in Wa Municipal, thus, there is a statistically significant association between infants' age and mothers current feeding practice. Exclusive breastfeeding was generally high with the majority of infants in all age groups being exclusively breastfed. Unlike in Accra Metropolis where only a little above one-third of infants aged 1 and 2 months were exclusively breastfed (36.7%), all infants (100%) in the same age category in Wa Municipality were exclusively breastfed.

Another striking difference in the study areas as far as this result is concerned is that, even though mothers in Accra formula-fed their infants at a lower rate (27%), infant in all age categories were formula fed with infants aged 1 to 2 months topping this category with almost 9 percent. However, the case in Wa Municipality showed that only one mother was formula feeding and even that mother was nursing an infant aged 5 to 6 months. The results do not only

confirm the high exclusive breastfeeding rate in Wa, but also shows mothers' maintenance of the practice throughout the first six months of the infants' life.

Meanwhile, it was observed that exclusive breastfeeding rate in Wa Municipality reduces as the infant aged. In other words, employed mothers exclusively breastfed their younger infants more than their older infants. This finding confirms a finding of a study by Dearden and his colleagues who examined exclusive breastfeeding and work outside among mothers in Viet Nam (2002). They noted that mothers of younger infants were exclusively breastfeeding significantly ($p\text{-value}=0.001$) than mothers of older infants. This is because in the early months, most mothers breastfed exclusively; however, beyond the first two months exclusive breastfeeding rate begins to drop drastically (Baker & Milligan, 2008). This trend is also confirmed by the Ghana Demographic and Health Survey, 2014 which report high exclusive breastfeeding rate of almost 80 percent during the first month postpartum but it falls to 36 percent in fifth month (GSS, GHS & ICF International, 2015). This is the time where most mothers begin to engage in other activities that have the potential of preventing them from exclusively breastfeeding. Besides, most mothers start transiting their babies from breastmilk to other complementary foods (See GSS, GHS & ICF International, 2015; Sika-Bright & Oduro, 2013).

CHAPTER SEVEN

NATURE OF MOTHERS' EMPLOYMENT AND WORKPLACE FACILITATORS AND BARRIERS TO EXCLUSIVE BREASTFEEDING

Introduction

The previous chapter looked at employed mothers' socio-demographic characteristics and their exclusive breastfeeding knowledge, perception and practices. As part of the objectives of the study, this chapter follows up with an exposition of the nature of mothers' employment and how employment may facilitate or serve as a barrier to exclusive breastfeeding for mothers. It must be noted that all the mothers who participated in this study were employed in the formal sector; as such this chapter examines the type of mothers' employment, employment schedules and other arrangements that have the potential to facilitate exclusive breastfeeding practice. The chapter, starts by presenting results on the nature of mother's employment and its relationship with exclusive breastfeeding practice. In addition, facilities at the workplace that could promote or prevent exclusive breastfeeding were also examined for their associations with exclusive breastfeeding.

Nature of Mothers' Employment and Exclusive Breastfeeding

The respondents were employed in various sectors of the formal sector with the majority of mothers reporting being teachers. The study further asked the employed mothers to indicate whether they worked in the public sector or private sector. The results for Accra Metropolis as shown in Figure 6 indicate

that as many as 450 mothers, representing 72.8 percent were employed in the public sector.

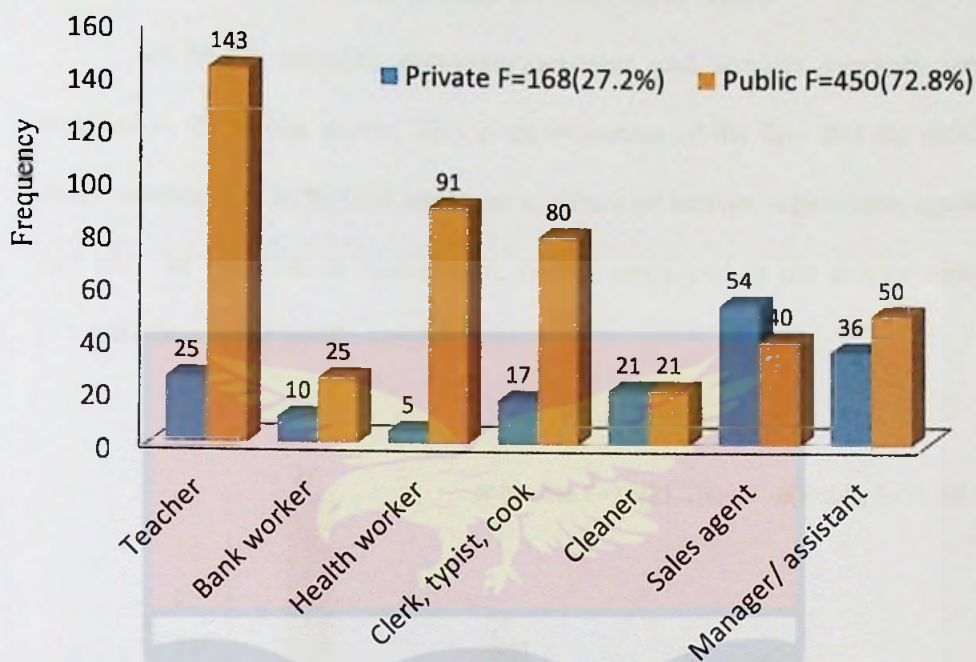


Figure 6: Mothers' employment sector in Accra Metropolis

Source: Field survey, Sika-Bright (2016).

The remaining 27.2 percent worked in the private sector. The study went further to examine how mothers' sector of employment was distributed according to their type of employment. It was found out that in almost all the categorised type of employment, the majority were working in the public sector. For instance, approximately 95 percent of health workers who participated in the study were employed in the public sector, likewise 85 percent and 83 percent of teachers and clerks/typists/cooks respectively. Meanwhile, the majority (57.4%) of sales agents who took part in the study were employed in the private sector with same number of cleaners (21) working in both the private and public sectors respectively (Figure 6).

In Wa Municipality, similar trends were recorded and as displayed in Figure 7, the majority (68.9%) of mothers who took part in the study were employed in the public sector just like the situation in Accra.

All health workers, managers/assistants and security workers were engaged in the public sector. This is an indication of the fact that the public sector continues to be highest employer in almost all sectors. Again sales agents, just like the situation in Accra, were mostly employed in the private sector (71.4%) than in the public sector (28.6).

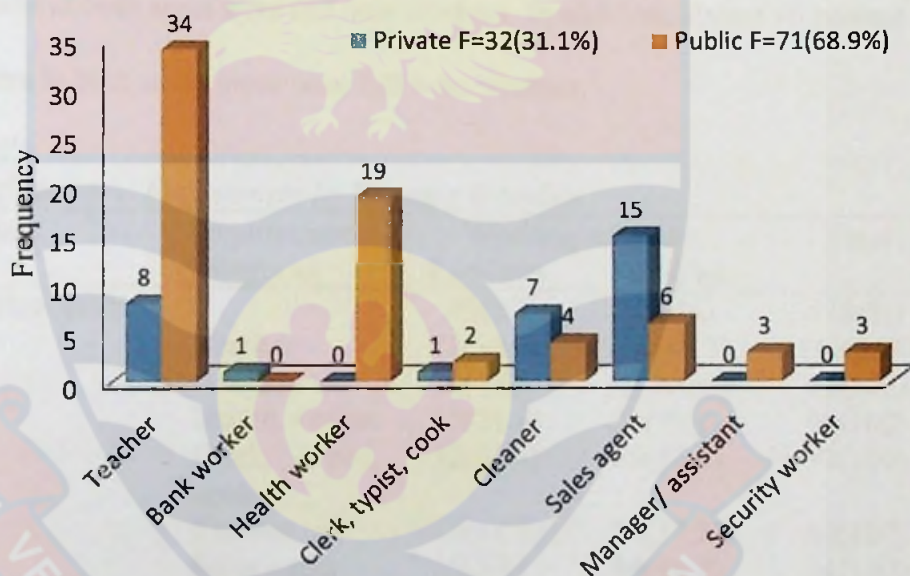


Figure 7: Mothers' employment and Sector in Wa Municipality

Source: Field survey, Sika-Bright (2016).

A third (33.3%) of clerks, typists and cooks who took part in the study were employed in the private sector with the only banker who took part in the study in Wa Municipal working in the private sector. The general picture painted here is that the public sector employed the majority of mothers who took part on this study.

As part of the nature of mothers' employment, mothers' employment schedule was also examined to find out whether mothers worked on part-time of full-time basis. This was necessary because literature confirms the link between mothers' working schedule and infant feeding practice (Auerbach & Guss, 1984; Bick, Macarthur, & Lancashire, 1998; Lindberg, 1996). Results in this regard are presented in Table 17. The majority of mothers, (almost nine out of every ten mothers), reported being full time workers in both study areas (Accra Metropolis 85.6%; Wa Municipality 89.3%). All bankers who took part in the study in both areas were full time workers. In addition, almost 90 percent of teachers in both study areas were full time workers.

Table 17:

Type of Mothers' Employment by Working Schedule

Study area	Employment Categories	Working schedule		Total
		Part-time	Full-time	
Accra Metropolis		89(%)	529(%)	618(%)
	Teacher	18(10.7)	150(89.3)	168(100)
	Banker	0(0.0)	35(100.0)	35(100)
	Health worker	21(21.9)	75(78.1)	96(100)
	Clerk, typist, cook	12(12.4)	85(87.6)	97(100)
	Cleaner	18(42.9)	24(57.1)	42(100)
	Sales agent	5(5.3)	89(94.7)	94(100)
	Manager	15(17.4)	71(82.6)	86(100)
Wa Municipal		11(%)	92(%)	103(%)
	Teacher	3(7.1)	39(92.9)	42(100)
	Banker	0(0.0)	1(100.0)	1(100)
	Health worker	3(15.8)	16(84.2)	19(100)
	Clerk, typist, cook	0(0.0)	3(100.0)	3(100)
	Cleaner	2(18.2)	9(81.8)	11(100)
	Sales agent	3(14.3)	18(85.7)	21(100)
	Manager/assistant	0(0.0)	3(100.0)	3(100)
	Security worker	0(0.0)	3(100.0)	3(100)

Source: Field survey, Sika-Bright (2016)

The number of full time workers in both study areas was also high among health workers, cleaners, sales agents, manager/assistants and typist cooks and clerks. However, there were some differences observed in the study areas. In Accra Metropolis for instance, managers and their assistants and clerk, typist and cook recorded 17.4 and 12.4 percent part time workers respectively, while none of the mothers in these category was a part time worker in Wa Municipality. Security workers who were all located in Wa Municipality were full time workers.

To find out how exclusive breastfeeding differ according to the nature of mothers' employment, a cross-tabulation analysis (Table 18) was conducted using some independent variables such as mothers' sector of employment, mothers' employment schedule, demanding nature of employment and job position and how they influence the dependent variable - exclusive breastfeeding- in the two study areas. The chi-square test was used to determine whether or not there is any significant relationship between these variables. As stated earlier, if the p value exceeds the significant level (0.05), it implies the test is not significant. However, if the p value is less than the significant level (0.05) then the test is significant.

Accordingly, Table 18 presents data on the mothers' sector of employment with regards to private or public sector, and exclusive breastfeeding according to the study areas. Looking at the data from the table, it could be seen that the proportions of exclusive breastfeeding mothers working in the private sector were higher than those of mothers working in the public sector in both Accra Metropolis and Wa Municipality,

Table 18:

Exclusive Breastfeeding by Nature of Mothers' Employment by Study Area

University of Cape Coast

<https://ir.ucc.edu.gh/xmlui>

Sector	Accra Metropolis					Wa Municipality				
	EBF Status		Total	χ^2 value	p- value	EBF Status		Total	χ^2 value	p - value
	Yes 96(%)	No 522(%)				Yes 78(%)	No 25(%)			
Private	35(20.8)	133(79.2)	168(100)	3.22	0.0781	26(81.3)	6(18.7)	329(100)	10.12	0.038
Teacher	3(12.0)	22(88.0)	25(100)			8(100)	0(0.0)	8(100)		
Banker	2(20.0)	8(80.0)	10(100)			1(100)	0(0.0)	1(100)		
Health worker	2(40.0)	3(60.0)	5(100)			0(0.0)	0(0.0)	0(0.0)		
Clerk, typist, cook	3(17.6)	14(82.4)	17(100)			0(0.0)	1(100)	1(100)		
Cleaner	6(28.6)	15(71.4)	21(100)			7(100)	0(0.0)	7(100)		
Sales agent	11(20.4)	43(79.6)	54(100)			10(66.7)	5(33.3)	15(100)		
Manager/ assistant	8(22.2)	28(77.8)	36(100)			0(0.0)	0(0.0)	0(0.0)		
Public	61(15.7)	389(84.3)	450(100)	27.86	0.000	52(73.2)	19(26.8)	71(100)	4.80	0.568
Teacher	9(6.3)	134(93.7)	143(100)			26(76.5)	8(23.5)	34(100)		
Banker	4(16.0)	21(84.0)	25(100)			0(0.0)	0(0.0)	0(0.0)		
Health worker	17(18.7)	74(81.3)	91(100)			13(68.4)	6(31.6)	19(100)		
Clerk, typist, cook	4(5.0)	76(95.0)	80(100)			2(100)	0(0.0)	2(100)		
Cleaner	6(28.6)	15(71.4)	21(100)			3(75)	1(25)	4(100)		
Sales agent	12(30.0)	28(70.0)	40(100)			4(66.7)	2(33.3)	6(100)		
Manager/ assistant	9(18.0)	41(82.0)	50(100)			3(100)	0(0.0)	3(100)		
Security worker	0(0.0)	0(0.0)	0(0.0)			1(33.3)	2(66.7)	3(100)		

Source: Field survey, Sika-Bright (2016)

In Accra Metropolis for instance, nearly 21 percent of private sector workers were exclusively breastfeeding compared to 15.7 percent of their counterpart in the public sector. Similarly, approximately 81 percent of mothers working in the private sector in Wa Municipality exclusively breastfed compared to 73% public sector working mother. However, whereas in Wa Municipality, working in the private sector was significantly associated (p-value 0.038) with exclusive breastfeeding practice, working in the public sector in Accra Metropolis was significantly associated (p-value 0.000) with exclusive breastfeeding.

Again looking at the categories of employment and how they differ in terms of exclusive breastfeeding and across study areas, it was found that whereas all teachers, bankers and cleaners working in the private sector in Wa Municipality were exclusive breastfeeding, only 12 percent of teachers, 20 percent of bankers and 29 percent of cleaners working the private sector in Accra Metropolis exclusively breastfed their babies.

The scenario among their public sector colleagues was a bit different, in that, the percentage of teachers who were breastfeeding exclusively in the public sector of Accra Metropolis is approximately half (6.3%) of that of their counterparts in the private sector. Comparing it with their counterparts in Wa Municipality, the majority (76.5%) of public sector teachers exclusively breastfed, though this proportion is less compared to that of their colleagues (100%) in the private sector. The least exclusively breastfeeding group among public workers in Accra Metropolis was clerks, typist and cooks (5%) though all their counterparts in Wa Municipality breastfed their infants exclusively (Table 18).

Exclusive breastfeeding was also examined according to whether the mother worked on full-time or part-time basis in both study areas. The results as shown in Table 19 indicated that mothers' schedule of work, that is full-time or part-time, was significantly associated (p -value = 0.000) with exclusive breastfeeding among employed mothers in Accra Metropolis. In other words, working on full-time or part-time basis as a mother in Accra Metropolis is significantly associated with mothers' exclusive breastfeeding status. The relationship between these variables in Wa Municipality was not statistically significant (part-time p -value=0.565; full-time p -value= 0.317), thus in Wa Municipality, exclusive breastfeeding practice is not significantly associated with mothers' full-time or part-time working status.

Notwithstanding the p -values of the chi-square tests, some other dynamics in the Table are worthy of note. In both study areas, the proportion of mothers breastfeeding exclusively was higher among part-time workers (Accra Metropolis=19.1%; Wa Municipality=81.8%) compared to full time workers (Accra Metropolis 14. 9%; Wa Municipality=75%). This finding was illuminated by a response of a full time mother who was not exclusively breastfeeding. She expressed that:

I work as a full time nurse and it is very difficult to practice exclusive breastfeeding, even now that my leave has expired I feel very constrained so me I have stopped
ooo (A 34 year old Nurse in Accra Metropolis).

Table 19:

Exclusive Breastfeeding by Mothers Working Schedule according to Study Area

Work schedule	Accra Metropolis					Wa Municipality				
	EBF Status		Total	χ^2 value	p-value	EBF Status		Total	χ^2 value	p-value
	Yes 96(%)	No 522(%)				Yes 78(%)	No 25(%)			
Part-time	17(19.1)	72(80.9)	89(100)	28.32	0.000	9(81.8)	2(18.2)	11(100)	2.04	0.565
Teacher	3(16.7)	15(83.3)	18(100)			2(66.7)	1(33.3)	3(100)		
Health worker	12(57.1)	9(42.9)	21(100)			3(100)	0(0.0)	3(100)		
Clerk, typist, cook	0(0.0)	12(100)	12(100)			0(0.0)	0(0.0)	0(0.0)		
Cleaner	0(0.0)	18(100)	18(100)			2(100)	0(0.0)	2(100)		
Sales agent	0(0.0)	5(100)	5(100)			2(66.7)	1(33.3)	3(100)		
Manager/ assistant	2(13.3)	13(86.7)	15(100)			0(0.0)	0(0.0)	0(0.0)		
Full-time	79(14.9)	450(85.1)	529(100)	48.12	0.000	69(75)	23(25)	92(100)	8.18	0.317
Teacher	9(6.0)	141(94.0)	150(100)			32(82.1)	7(17.9)	39(100)		
Banker	6(17.1)	29(82.9)	35(100)			1(100)	0(0.0)	1(100)		
Health worker	7(9.3)	68(90.7)	75(100)			10(62.5)	6(37.5)	16(100)		
Clerk typist, cook	7(8.2)	78(91.8)	85(100)			2(66.7)	1(33.3)	3(100)		
Cleaner	12(50)	12(50)	24(100)			8(88.9)	1(11.1)	9(100)		
Sales agent	23(25.8)	66(74.2)	89(100)			12(66.7)	6(33.3)	18(100)		
Manager/ assistant	15(21.1)	56(78.9)	71(100)			3(100)	0(0.0)	3(100)		
Security worker	-	-	-			1(33.3)	2(66.7)	3(100)		

Source: Field survey, Sika-Bright (2016)

Another mother working on full-time basis in Wa Municipality also expressed that:

This exclusive breastfeeding is difficult for some of us to do as full-time workers, for me, am doing it because I have not yet resumed work, but I can't combine it with work (A 27 year old Banker in Wa Municipality).

It was also found that mothers in Accra Metropolis who worked on part-time as sales agents, cleaners, clerk, typist and cooks were not exclusively breastfeeding at all (Table 19).

This finding confirms works done by Auerbach and Guss (1984); Frank (1998); Meek, (2001). Auerbach and Guss found that breastfeeding was more difficult for women employed full-time than those with part-time employment (Auerbach & Guss, 1984). Frank (1998) also found that being employed full-time decreased exclusive breastfeeding initiation and duration. Meanwhile the findings of this study contradict that of Hawkins et al., who suggested that mothers who are employed on a full time basis are more likely to exclusively breastfeed compared to those employed on part-time basis (Hawkins et al., 2007). However, they added that full-time employed mothers can sustain exclusive breastfeeding if their employer offered supportive breastfeeding arrangements (Hawkins et al., 2007).

Socialist feminist perspective which informs this study offers an insight into this finding. Exclusive breastfeeding is a form of domestic labour that costs employed mothers' time and energy without producing income. Particularly for low-income mothers who are often overwhelmingly worked out, exclusive breastfeeding may be perceived as an inconvenience and too costly a choice

(Hausman, 2003). The infant feeding choices available to women are to formula feed, breastfeed exclusively, or offer the infant a combination of formula and breast milk. As such, mothers who do not breastfeed because of work-related constraints must buy formula, representing a large, sought after, capitalist market (Tamaro, 1998).

In addition to mothers' work being private or public, and being full-time or part-time, exclusive breastfeeding was examined among other nature of employment variables such as the demanding nature of mothers' employment and mothers' position at work using the chi-square test statistic. Table 20 presents data in this regard. The results as presented in Table 20 showed that the majority of mothers in both study areas (Accra Metropolis, 549 out of 618; Wa Municipality, 89 out of 103) described their employment as demanding. The majority in both study areas also occupied middle level positions (Accra Metropolis, 344 out of 618; Wa Municipality, 53 out of 103).

In Accra Metropolis, of the majority (549) of mothers who described their employment as demanding, only 92 exclusively breastfed of which 20.7 percent, 53.3 percent and 26.1 percent were within the senior, middle and lower level management respectively. On the other hand, the majority (89/103) of mothers in Wa Municipality who also described their employment as demanding were exclusive breastfeeding with 12.1 percent of them occupying senior level positions, 48.5 percent occupying middle level positions and 39.4 percent occupying lower level positions. In comparing the situation among mothers in demanding employment, it could be seen that mothers occupying senior level positions in Accra Metropolis exclusively breastfed higher (20.7%) than their counterparts in Wa Municipality (12.1), however, mothers in Wa

Municipality who occupy lower positions in demanding employments were exclusive breastfeeding more (39.4%) than their counterparts in Accra Metropolis (26.1%).

Table 20:

Exclusive Breastfeeding by Nature of Mothers' Employment and Mothers Position

		What is your position at work				χ^2 value	P- value
		Senior level	Middle level	Lower level	Total		
Nature of work		Accra Metropolis					
		(n=149) %	(n=344) %	(n=125) %	(n=618)%		
Demanding	EBF Status					3.39	0.183
	EBF Yes	20.7	53.3	26.1	92(100)		
Not demanding	EBF No	25.8	56.0	18.2	457(100)	1.70	0.427
	EBF Yes	-	50	50	4(100)		
	EBF No	18.5	56.9	24.6	65(100)		
Nature of work		Wa Municipality					
		(n=11) %	(n=53) %	(n=39) %	(n=103) %		
Demanding	EBF Status					6.16	0.046
	EBF Yes	12.1	48.5	39.4	66(100)		
Not demanding	EBF No	4.3	78.3	17.4	23(100)	14.00	0.001
	EBF Yes	-	25	75	12(100)		
	EBF No	2(100)	-	-	2(100)		

Source: Field survey, Sika-Bright (2016)

Again, whereas exclusive breastfeeding was critically low among mothers in non-demanding employment in Accra Metropolis (4 out of 69), exclusive breastfeeding was very high among their counterparts in Wa Municipality (12 out of 14), with mothers who occupy senior level positions in non-demanding employments in both study areas not exclusive breastfeeding.

Comparing the findings in the two study areas, it can be clearly stated that mothers in Wa Municipality, although they shared similar nature of work as those in Accra, were better in exclusively breastfeeding their babies. This is confirmed by the Chi-square test which showed that the p values, 0.183 and 0.427 for mothers whose work was either demanding or not was greater than the significant level. This implied that there is no statistically significant difference between the position of mothers and exclusive breastfeeding in Accra Metropolis. On the other hand, the Chi-square test in Wa Municipality showed that the p values, 0.046 and 0.001 for mothers whose work was either demanding or not was less than the significant level. Hence, there is significant difference between the position of mothers and exclusive breastfeeding. In other words, mothers' employment position in Wa Municipality is influential in their exclusive breastfeeding practice.

Correlation on Exclusive Breastfeeding and Mothers' Employment

The main appeal for the correlation method of analysis is that it lends itself more to the analysis of data from cross-sectional survey designs that investigate the relationship between two or more naturally occurring, non-manipulated and measurable variables. In this study, the naturally occurring, non-manipulated and measurable variables are exclusive breastfeeding practice and the nature of maternal employment. These variables can be described as naturally occurring and measurable because quantitative analysis on these variables can readily be collected in the natural world without setting up an experiment.

The main objective of this study was to examine the relationship between the nature of mothers' employment and exclusive breastfeeding. In literature, studies have argued that there is a relationship between the nature of mother's employment and exclusive breastfeeding (Baker & Milligan, 2008; Danso, 2014; Huerta, et al. 2011; Mandal & Lee, 2010; Mensah, 2011). It is based on this hypothesis that the Spearman correlation method was used to determine the relationship between exclusive breastfeeding and the nature of mothers' employment. The variable 'nature of employment' was measured by queries that elicited ranked answers like position at workplace, demanding nature of work and nature of support from co-workers and supervisors (see Appendix C). Since the variables the nature of mothers' employment were measured at the ordinal level, it violated the Pearson correlation suitable for parametric test.

Table 21:

Spearman Correlation between Maternal Employment and Exclusive Breastfeeding

Test	Variables		Exclusive breastfeeding	Nature of employment
Accra Metropolis				
Spearman's rho	Exclusive breastfeeding	Correlation	1.000	-.073*
		Coefficient		
		Sig. (1-tailed)		.025
	Nature of employment	n	618	618
		Correlation	-.079*	1.000
		Coefficient		
	Sig. (1-tailed)	.025		
	n	618	618	
Wa Municipality				
Spearman's rho	Exclusive breastfeeding	Correlation	1.000	-0.016
		Coefficient		
		Sig. (1-tailed)		0.435
	Nature of employment	n	103	103
		Correlation	-0.016	1.000
		Coefficient		
	Sig. (1-tailed)	0.435		
	n	103	103	

*. Correlation is significant at the 0.05 level (1-tailed).

Source: Field survey, Sika-Bright (2016)

The researcher therefore considered Spearman correlation method suitable for non-parametric test. This method also helps in testing for the strength and direction of the relationship between the nature of mothers' employment and exclusive breastfeeding. Table 21, which shows the relationship between nature of maternal employment and exclusive breastfeeding in Accra Metropolis and Wa Municipality, has sample size (n) and level of significance (sig.).

In Accra Metropolis, the study shows that the probability value (p value) of 0.025 is less than or falls within the significant value of 0.05; hence the test is statistically significant at 0.05. The test for the strength and direction of the relationship between nature of mothers' employment and exclusive breastfeeding among mothers in Accra Metropolis gives the correlation coefficient (cc) of -0.073 which is significant at 0.05 level. In other words, as the variables in the nature of mothers' employment change, for instance, if their employment become more demanding, or if they get into higher positions, the less likely will they exclusively breastfeed their babies.

Although there is a significant relationship between these variables, the correlation coefficient indicates a very weak negative relationship (-0.073). This implies that, in Accra Metropolis, as more mothers enter into the world of work, the nature of their employment might make it more difficult for them to practice exclusive breastfeeding as they should. Although the relationship is not strong, this supports works done by Baker and Milligan, 2008; Huerta et al., 2011; and Podoval and Podoval, 2009; who found out that, most mothers were not able to balance exclusive breastfeeding and employment at the early stages of their infants' life and in most mothers stopped exclusive breastfeeding. This

underscores the negative relationship that exists between maternal employment and exclusive breastfeeding.

In Wa Municipality, however, the probability value (p value) of 0.435, with a correlation coefficient of -0.016*, is greater than the significant value of 0.05 showing no statistical difference between the nature of mothers' employment and exclusive breastfeeding. This implies that natures of mothers' employment was not significantly associated with exclusive breastfeeding practice among mothers in Wa Municipality.

Workplace Facilitators and Barriers to Exclusive Breastfeeding Practice

The study also sought to examine how employment related facilities, policies and practices may facilitate or serve as barriers to exclusive breastfeeding practice at the workplace. This was done against the backdrop that various employment situations and settings present several challenges to nursing mothers thereby preventing them from breastfeeding appropriately (Danso, 2014; Dunn, et al., 2004; Johnston & Esposito, 2007; McGovern et al., 2007). Workplace policies such as those bordering on maternity leave and its duration, support from supervisors and co-workers were examined in addition to other variables such as breaks for breastfeeding, availability of freezers for expressed milk, and space for breastfeeding among mothers with the chi-square test to find out how they influence exclusive breastfeeding.

Results from the two study areas in Table 22 depict that, length of maternity leave, breastfeeding support from co-workers and supervisors were significantly related to exclusive breastfeeding practices of employed mothers

in Accra Metropolis but similar relationships were not significant in Wa Municipality.

Table 22:

Workplace Support and Facilities by Exclusive Breastfeeding Practices

Workplace support/ facilities	Accra Metropolis					Wa Municipality				
	EBF Status		Total	χ^2 value	p-value	EBF Status		Total	χ^2 value	p-value
	Yes	No				Yes	No			
Length of maternity leave				31.25	0.000				1.68	0.430
< 2 months	2.4	97.6	85(100)			100	0(0.0)	5(100)		
3 months	13.1	86.9	366(100)			74.4	25.6	82(100)		
>3 months	27.5	72.5	167(100)			75	25	16(100)		
Breastfeeding support from co-workers				23.87	0.000				6.96	0.073
Not at all	8.4	91.6	178(100)			64.0	36.0	25(100)		
Very little	13.2	86.8	197(100)			69.2	30.8	39(100)		
Some	17.9	82.1	151(100)			90.3	9.7	31(100)		
Very strong	30.4	69.6	92(100)			87.5	12.5	8 (100)		
Breastfeeding support from supervisors				5.65	0.091				4.55	0.208
Not at all	17.6	82.4	221(100)			69.0	31.0	29(100)		
Very little	23.6	76.4	144(100)			68.6	31.4	35(100)		
Some	5.4	94.6	112(100)			88.5	11.5	26(100)		
Very strong	12.1	87.9	141(100)			84.6	15.4	13(100)		
Breaks for breastfeeding at work				42.38	0.000				2.00	0.157
Yes	25.1	74.9	307(100)			78.6	21.4	84(100)		
No	6.1	93.9	311(100)			63.2	36.8	19(100)		
Presence of refrigerator at workplace				1.22	0.000				2.80	0.419
Yes	45.1	54.9	142(100)			100	0(0.0)	2(100)		
No	6.7	93.3	476(100)			75.2	24.8	101(100)		
Half day at work				5.31	0.021				0.20	0.655
Yes	18.8	81.2	313(100)			78.0	22.0	41(100)		
No	12.1	87.9	305(100)			74.2	25.8	62(100)		
Private space for breastfeeding at work				44.86	0.000				2.08	0.149
Yes	34.4	65.6	131(100)			85.7	14.3	28(100)		
No	10.5	89.5	487(100)			72.0	28.0	75(100)		

Source: Field survey, Sika-Bright (2016)

It could also be seen that unlike the case of Wa Municipality, exclusive breastfeeding rates for employed mothers in Accra Metropolis increased as their maternity leave extends. In other words, mothers whose maternity leave was three months breastfed exclusively almost six times (13.1%) more than mothers whose maternity leave was below two months (2.4%). In addition, those whose maternity leave extended beyond three months were breastfeeding exclusively

approximately 10 times more (27.5%) than mothers whose maternity leave period was below two months.

This finding emphasises the importance of maternity leave duration in facilitating exclusive breastfeeding practices among mothers employed in the formal sector. Most mothers interviewed in Accra Metropolis expressed their opinions on the maternity leave duration and how it poses a challenge to exclusive breastfeeding.

Their expressions are reported as follows:

To me, the current maternity leave is enough but if you don't have accumulated leave, then it means you can only breastfeed for three months, you see...that is the problem
(A 29 year old manager in Accra Metropolis).

Another mother also mentioned that:

No, the three months is not enough for me at all, I have resumed work and am not able to continue breastfeeding my baby exclusively, even coming to 'weighing' (postnatal check up) today was a problem so I wish the leave is extended so we can breastfeed our babies for long (A 31 year old banker in Accra Metropolis).

Meanwhile, mothers in Wa Municipality did not find the current maternity leave duration as a challenge to exclusive breastfeeding as mothers exclusively breastfed irrespective of the length of maternity leave. It was even noted that all mothers who had less than two months of maternity leave were exclusive breastfeeding compared to approximately 74.4 percent and 75 percent

exclusively breastfeeding rates of those with three months and beyond three months maternity leave respectively.

This finding brings the expression of a 28 year old security worker in the Municipality to perspective when she responded to a question on the adequacy of the current maternity leave period in ensuring exclusive breastfeeding practice. According to her,

It is not enough to have just three months of maternity leave, mothers need more time with their babies to practise exclusive breastfeeding. For me, my mother supports me very much that is why I am able to exclusively breastfeed, see, she is even here with me.

It could therefore be realised that the current maternity leave duration for mothers in Wa Municipality was not a challenge as far as breastfeeding exclusively is concerned.

The finding from Accra Metropolis confirms several findings of research done on infant feeding that also found a positive relationship between the length of maternity leave and exclusive breastfeeding (See Baker & Milligan, 2008; Calnen, 2010; Cherop, Keverenge-Ettyang & Mbagaya, 2009; Ogbuanu et al., 2011; Labbok & Taylor, 2008; Setegn, et al., 2012). Cherop, Keverenge-Ettyang and Mbagaya (2009) reported that, the majority of mothers who participated in their study found the three-month maternity leave inadequate for exclusive breastfeeding for six months.

Setegn et al. (2012) also found that short maternity leave was a barrier to exclusive breastfeeding and therefore advocated for extension. Ogbuanu et al. (2011) have also reported a positive association between length of maternity

leave and breastfeeding initiation and duration. To them, mothers who returned to work at or after 13 weeks of maternity leave were 2.5 times more likely to breastfeed beyond 3 months when compared to mother who returned to work sooner. From the forgoing, it is therefore not surprising that in this study mothers in Accra Metropolis exclusive breastfeeding rates increased as their maternity leave extends.

The study also looked at the availability of other facilities at the workplace and whether or not such facilities have the potential to support exclusive breastfeeding. In this regard, breastfeeding support from co-workers and supervisors were looked at. The majority of mothers from both study areas received very little or no co-workers' support when it comes to exclusive breastfeeding (Table 22). It was therefore evident that as the support increases, exclusive breastfeeding rate also increased. However, the relationship between these variables was significant in Accra Metropolis ($p\text{-value}=0.000$) but not significant in Wa Municipality ($p\text{-value}=0.073$). Employed mothers in Accra Metropolis who received very strong breastfeeding support from their co-workers were exclusively breastfeeding almost four times (30.4%) more than mothers who got no co-worker support (8.4%). These results therefore demonstrate that the more mothers have co-worker support, the more likely are they to breastfeed exclusively.

The mothers described how they experienced support from co-workers and from their expressions, it was realised that mothers feel supported when co-workers compliment mothers on their breastfeeding efforts and take over their tasks so they can breastfeed their babies. Others also expressed that when co-workers ask questions about exclusive breastfeeding, and suggest ways to

breastfeed better, they feel largely supported. For instance, a 36 year old nurse in Accra Metropolis who felt strongly supported by co-workers had this to say

I feel my colleagues at the workplace support my breastfeeding practice because they are always ready to help me by giving me more information on exclusive breastfeeding and some even takeover my work so that I can breastfeed at the workplace.

Another mother remarked that:

My co-workers are always happy when I take my daughter to work; they help me carry her and encourage me all the time not to give up breastfeeding her exclusively (A 31 year old teacher in Accra Metropolis).

Breastfeeding support from supervisors was not significantly associated ($p\text{-value} = 0.091$) with exclusive breastfeeding practice of mothers in both study areas. It was found out that even mothers who had no breastfeeding support from supervisors were exclusively breastfeeding at the same rate as mothers who had very strong supervisor support.

Various studies have found a positive correlation between support nursing mothers receive at work and their exclusive breastfeeding practice (Calnen, 2007; Dunn et al., 2004; Hamilton-Solum, 2011; Libbus & Bullock, 2002; Stewart-Glenn, 2008). Stewart-Glenn (2008), in a literature review of 38 publications identified workplace support as influential on mothers' exclusive breastfeeding practice. Hamilton-Solum (2011), also found that workplace support from co-workers influenced mothers to engage in exclusive breastfeeding practice.

Both support from co-workers and supervisors are also framed in the symbolic interactionists' perspective informing this study. Co-workers are mothers' reference points and in interactionist terms, these reference points exert some influence on mothers' behaviour and for that matter exclusive breastfeeding practice. Mothers' identification of co-workers support as influential in their exclusive breastfeeding practice emphasises co-workers as reference groups whom mothers must behave to suit their preference.

Mothers also received support from supervisors thought it was not significantly associated with their exclusive breastfeeding practices. This finding contradicts the work of Weiss (2015) who found supervisor support very influential among nursing mothers in Louisville. The implication here is that, supervisors are giving their support to mothers alright, but mothers can exclusively breastfeed when they are strongly supported by their colleagues.

Mothers were also asked to indicate "yes" or "no" to queries about the availability of certain facilities known to help employed mothers to breastfeed at the workplace (Desmond & Meaney, 2016; Dinour, Pope, & Bai, 2015). These facilities include having breaks for breastfeeding, availability of refrigerator at the workplace to store expressed milk, private space at the workplace to breastfeed and whether or not mothers had a half-day at work. Their responses were examined across mothers' exclusive breastfeeding practices to find out whether the availability of these facilities had some influence on exclusive breastfeeding practices among employed mothers.

The results as presented in Table 22 show that unlike the situation in Wa Municipality, the availability of the facilities in question were significantly associated with exclusive breastfeeding in Accra Metropolis. With a chi-square

value of 0.000, there was a significant association between the provision of breaks for breastfeeding at the workplace and exclusive breastfeeding among employed mothers in Accra Metropolis as mothers who had breaks to breastfeed at the workplace exclusively breastfed almost four times (25.1%) more than those who did not have breaks (6.1%).

In Wa Municipality on the other hand, availability of breaks for breastfeeding at the work place was not significantly associated with exclusive breastfeeding, however, mothers who had breaks at the workplace for breastfeeding exclusively breastfed slightly higher (78.6%) than mothers who had no breaks. It can therefore be deduced that employed mothers who have breaks to breastfeed at the work place are more likely than those without breaks to exclusively breastfeed.

Like breaks for breastfeeding at the workplace, the availability of refrigerators at the workplace was also found to significantly influence exclusive breastfeeding practices among employed mothers in Accra Metropolis (p -value=0.000). Specifically, mothers who had refrigerators at their workplace for expressed milk reported exclusive breastfeeding approximately six times (45.1%) higher than mothers who had no refrigerators (6.7%). In Wa Municipality, the availability of refrigerators at the workplace did not significantly affect exclusive breastfeeding practice of employed mothers (0.419).

Working half-day is a policy to help breastfeeding mothers to breastfeed their infants. In this study, half day at work for mothers in Accra Metropolis was significantly associated with exclusively breastfeeding practice (0.021) though mothers with half day exclusively breastfed slightly higher (18.8%) than

their colleagues without half-day (12.1%). On the other hand, half day at work was not significantly associated with exclusive breastfeeding practices of employed mothers in Wa Municipality.

Another facility examined was the availability of private space for breastfeeding at the workplace. Most mothers in both study areas reported not having private spaces to breastfeed. Meanwhile, in Accra Metropolis, the availability of private spaces at the workplace to breastfeed was significantly associated (0.000) with exclusive breastfeeding as the few mothers who had private spaces were more than three times (34.4%) exclusive breastfeeding than those who did not have private spaces (10.5%). The situation in Wa Municipality on the other hand indicated that the availability of private space for breastfeeding at the workplace had no significant relationship with exclusive breastfeeding practice.

The situation in Accra Metropolis where private space for breastfeeding was significantly influential on mothers' exclusive breastfeeding practice corroborates the findings of work done by Dinour, Pope and Bai (2015). In their study, student mothers found the lack private space to breastfeed to be a barrier to their breastfeeding practices to the extent that mothers who had private space to breastfeed breastfed their infants frequently than those who did not. Lack of supportive work environments, lactation facilities and the period of paid maternity leave have all been cited as barriers to breastfeeding in the workplace (Ogbuanu et al., 2011). Similarly, the mothers in this study faced these barriers when they were due to return or had returned to the workplace.

As indicated in the Table 22, the availability of facilities such as refrigerators at the workplace to store expressed milk, private space for

Breastfeeding at the workplace, breastfeeding breaks and having a half-day at work were significantly associated with exclusive breastfeeding practice among employed mothers in Accra Metropolis. However these facilities were not significantly associated with exclusive breastfeeding among mothers in Wa Municipality. Based on this result, further analysis was done to find out how the availability of these facilities affect employed mothers' exclusive breastfeeding practice in Accra Metropolis according to their employment types. This was done as part of the research objectives to examine how the influence of these facilities differs according to mothers' type of employment. Tables 23 and 24 present data on how the influence of these facilities on exclusive breastfeeding differs according to mothers' type of employment in Accra Metropolis. The chi-square test was utilised in this regard. It is acknowledged that the cell numbers are few, nevertheless the various relationships were explored.

Table 23 looked at the availability of refrigerator at the workplace to store expressed milk and private space for breastfeeding at the workplace and how they influence exclusive breastfeeding practice of employed mothers in different employment settings. The results from Table 23 show that the availability of refrigerator at the workplace was significantly associated with exclusive breastfeeding practices of mothers in all employment categories.

It is important to note that the majority; almost 80 percent of health workers, 64 percent of cleaners, and 55 percent of sales agents, who had refrigerators breastfed exclusively. The least was recorded among teachers with approximately a fifth (21.4%) of those who had refrigerators at their workplaces exclusively breastfeeding. Again, private space for breastfeeding at the

workplace was significantly associated with exclusive breastfeeding practices of the mothers in all employment categories (Table 23).

Table 23:

Availability of Facilities By Type of Employment by EBF Status (A)

Type of work		EBF Status		Total	χ^2 value	p- value
		Yes	No			
		96(%)	522(%)	618(%)		
Refrigerators to store milk at workplace						
Teacher	Yes	6 (21.4)	22(78.6)	28(100)	10.33	0.001
	No	6(4.3)	134(95.7)	140(100)		
Banker	Yes	6(28.6)	15(71.4)	21(100)	4.83	0.028
	No	-	14(100)	14(100)		
Health workers	Yes	14(77.8)	4(22.2)	18(100)	46.92	0.000
	No	5(6.4)	73(93.6)	78(100)		
Clerk, typist, cook	Yes	6(50)	6(50)	12(100)	37.43	0.000
	No	1(1.2)	84(98.8)	85(100)		
Cleaner	Yes	7(63.6)	4(36.4)	11(100)	8.97	0.003
	No	5(16.1)	26(83.9)	31(100)		
Sales agents	Yes	12(54.5)	10(45.5)	22(100)	14.06	0.000
	No	11(15.3)	61(84.7)	72(100)		
Managers/ assistants	Yes	13(43.3)	17(56.7)	30(100)	16.13	0.000
	No	4(7.1)	52(92.9)	56(100)		
Space for breastfeeding at workplace						
Teacher	Yes	5(16.1)	26(83.9)	31(100)	4.62	0.031
	No	7(5.1)	130(94.9)	137(100)		
Banker	Yes	3(30.0)	7(70)	10(100)	1.63	0.202
	No	3(12)	22(88)	25(100)		
Health workers	Yes	8(34.8)	15(65.2)	23(100)	4.28	0.039
	No	11(15.1)	62(84.9)	73(100)		
Clerk, typist, cook	Yes	6(54.5)	5(45.5)	11(100)	41.50	0.000
	No	1(1.2)	85(98.8)	86(100)		
Cleaner	Yes	4(30.8)	9(69.2)	13(100)	0.04	0.833
	No	8(27.6)	21(72.4)	29(100)		
Sales agents	Yes	11(73.3)	4(26.7)	15(100)	23.06	0.000
	No	12(15.2)	67(84.8)	79(100)		
Managers/ assistants	Yes	8(28.6)	20(71.4)	28(100)	2.09	0.154
	No	9(15.5)	49(84.5)	58(100)		

Source: Field survey, Sika-Bright (2016)

Upon further analysis, it was shown in Table 23 that the availability of private space for breastfeeding at the workplace was significantly associated with exclusive breastfeeding practices of mothers employed as teachers (p -value=0.031), health workers (p -value=0.039), sales agents (p -value=0.000) and clerks, typists and cooks (p -value=0.000). This implies that mothers who were employed as teachers, health workers; sales agents and clerks, typists and cooks found the availability of private space for breastfeeding at the workplace crucial as far as exclusive breastfeeding is concerned. However, mothers employed as bankers, cleaners, and managers did not find private space for breastfeeding at the workplace significant to breastfeed exclusively.

It was further revealed that cleaners (30.8%), health workers (34.8%) and bankers (30%) who had private space to breastfeed at their workplaces exclusively breastfed their infants almost twice as teachers (16.1%) who had the same facility. Sales agents who had private space for breastfeeding were the highest exclusive breastfeeding employment category (73.3%) as they exclusively breastfed twice as health workers and quadrupled as teachers.

Meanwhile in Table 24, breaks for breastfeeding at the work place was significant in determining exclusive breastfeeding among mothers employed as bankers (0.010), teachers (0.001) and managers (0.000). This implies that, mothers employed as bankers, teachers and managers considered breaks for breastfeeding at the workplace as an important factor as far breastfeeding exclusively is concerned.

This is shown in the overwhelming differences in the rate of exclusive breastfeeding between mothers who have breaks for breastfeeding and those who did not have. For instance, teachers who had breaks for breastfeeding,

exclusively breastfed their infants almost eight times (15.6%) as their counterparts who did not have breaks (1.9%). Managers exclusively breastfed their infants at the highest rate (43.8%) compared to the rates of the other employment categories.

Table 24:

Availability of Facilities by Type of Employment by EBF Status (B)

Type of work		EBF Status		Total	χ^2 value	p-value
		Yes 96(%)	No 522(%)			
Breaks for breastfeeding at workplace						
Teacher	Yes	10(15.6)	54(84.4)	64(100)	11.21	0.001
	No	2(1.9)	102(98.1)	104(100)		
Banker	Yes	5(38.5)	8(61.5)	13(100)	6.61	0.010
	No	1(4.5)	21(95.5)	22(100)		
Health workers	Yes	14(25.5)	41(74.5)	55(100)	2.60	0.107
	No	5(12.2)	36(87.8)	41(100)		
Clerk, typist, cook	Yes	5(11.4)	39(88.6)	44(100)	2.06	0.150
	No	2(3.8)	51(96.2)	53(100)		
Cleaner	Yes	12(29.3)	29(70.7)	41(100)	0.41	0.522
	No	-	1(100)	1(100)		
Sales agents	Yes	17(29.3)	41(70.7)	58(100)	1.92	0.166
	No	6(16.7)	30(83.3)	39(100)		
Managers/ assistants	Yes	14(43.8)	18(56.2)	30(100)	18.48	0.000
	No	3(5.6)	51(94.4)	54(100)		
Half-day at workplace						
Teacher	Yes	4(5.5)	69(94.5)	73(100)	0.54	0.463
	No	8(8.4)	87(91.6)	95(100)		
Banker	Yes	6(26.1)	17(73.9)	23(100)	3.77	0.052
	No	-	12(100)	12(100)		
Health worker	Yes	8(15.4)	44(84.6)	52(100)	1.38	0.239
	No	11(25)	33(75)	44(100)		
Clerk, typist, cook	Yes	7(9.6)	66(90.4)	73(100)	2.48	0.115
	No	-	24(100)	24(100)		
Cleaner	Yes	3(27.3)	8(72.7)	11(100)	0.01	0.912
	No	9(29)	22(71)	31(100)		
Sales agent	Yes	17(44.7)	21(55.3)	15(100)	14.17	0.000
	No	6(10.7)	50(89.3)	56(100)		
Manager/ assistant	Yes	14(32.6)	29(67.4)	43(100)	8.87	0.003
	No	3(7)	40(93)	43(100)		

Source: Field survey, Sika-Bright (2016)

Managers who had breaks for breastfeeding at the workplace exclusively breastfed their infants slightly more than bankers (38.5%) and almost thrice as much as the exclusive breastfeeding rates of teachers (15.6%) who had breaks for breastfeeding at the work place. Clerks, typists and cooks recorded the least exclusive breastfeeding rate (11.4%) among mothers who had breaks for breastfeeding as their breastfeeding rate was a quarter of that of managers. It was also found that cleaners and sales agents who had breaks for breastfeeding at the workplace were exclusively breastfeeding their infants at the same rate (29.3%).

In looking at how half-day at work also influence exclusive breastfeeding among mothers of various employments, it was realised that, it was significantly associated with exclusive breastfeeding of mothers employed as sales agents ($p\text{-value}=0.000$) and managers ($p\text{-value}=0.003$). In the remaining categories of employment, the relationship between half-day at work and exclusive breastfeeding practice was not significant. It must be noted that in the cases of teachers, health worker, and cleaners, mothers who didn't have half-day at work were exclusively breastfeeding their infants than their counterparts who had half-day at work. For instance health workers who didn't have half-day at work were exclusively breastfeeding their infants twice (25%) as their colleagues who had half-day at work (15.4%). Sales agents who had half-day at work were the highest exclusive breastfeeding category (44.7%) and were exclusive breastfeeding almost three times as health workers (15.4%), and approximately eight times as teachers (5.5%).

These findings exposed by the further analysis in Tables 23 and 24 are very crucial in the sense that policy can target specific employment settings and address the needs of nursing mothers there.

Mothers' Opinions Regarding Exclusive Breastfeeding and Employment

Mothers' opinion regarding employment and exclusive breastfeeding is very influential in shaping their infant feeding practice (Sullivan, Leathers, & Kelley, 2004; Bick, Macarthur & Lancashire, 1998).

Table 25:

Mothers' EBF Opinions by their EBF Status according to Study Area

Opinion	Accra Metropolis			Wa Municipal		
	EBF Status			EBF Status		
	Yes %	No %	Total 618	Yes %	No %	Total 103
EBF mothers should not work						
Agree	16.1	83.9	161	66.7	33.3	31
Neutral	9.2	90.8	120	77.8	22.2	9
Disagree	17.5	82.5	337	86.0	14.0	63
EBF interferes with work output						
Agree	13.4	86.6	368	88.1	11.9	67
Neutral	18.4	81.6	108	71.4	28.6	7
Disagree	16.1	83.9	142	82.8	17.2	29
Mothers should breastfeed at work						
Agree	21.8	78.2	308	85.9	14.1	78
Neutral	10.1	89.9	129	87.5	12.5	8
Disagree	8.8	91.2	181	94.1	5.9	17
I will support EBF mothers at the work						
Agree	17.1	82.9	415	89.2	10.8	86
Neutral	6.6	93.4	91	60.0	40.0	10
Disagree	17	83	112	42.9	57.1	7
Supervisors should support EBF						
Agree	19.0	81.0	468	86.9	13.1	92
Neutral	5.7	94.3	88	85.7	14.3	7
Disagree	3.2	96.8	62	75	25	4
Co-workers should support EBF						
Agree	16.7	83.3	456	76.8	23.2	82
Neutral	13.8	86.2	130	66.7	33.3	9
Disagree	6.3	93.8	32	75	25	12

Source: Field survey, Sika-Bright (2016)

General opinions of mothers about exclusive breastfeeding and maternal employment were examined to find out how their opinions influence their exclusive breastfeeding practices. The results as presented in Table 25 indicate that the majority of mothers from both study areas (Accra Metropolis, 337 out of 618; Wa Municipality, 63 out of 103) disagreed that exclusive breastfeeding mothers should not work.

In addition mothers who disagreed to this statement in both study areas were exclusively breastfeeding their infants more than mothers in agreed and neutral categories. The majority of mothers in both study areas also agreed that exclusive breastfeeding will interfere with productivity, that mothers should breastfeed at work, and they will support exclusive breastfeeding mothers at work.

In addition almost all mothers in both study areas also agreed that supervisors and co-workers should support exclusive breastfeeding mothers at the workplace. It can be concluded that mothers who took part in the study held opinions that are favourable to exclusive breastfeeding practice. It is therefore not surprising that mothers who agreed to the statements were exclusive breastfeeding more than mothers in the neutral and disagree categories.

CHAPTER EIGHT

CHALLENGES AND COPING MECHANISMS OF EMPLOYED MOTHERS TO SUSTAIN EXCLUSIVE BREASTFEEDING

Introduction

This chapter explored exclusive breastfeeding strategies employed by nursing mothers upon their assumption of work (at end of maternity leave). The data for this chapter was gathered using interview guide. In-depth interviews were carried out with 32 mothers who had exhausted their 12 weeks mandatory maternity leave specified by the Ghana Labour Act (2003). The purpose of the interviews was to better understand the challenges of mothers who have resumed employment postpartum and the strategies they employ to cope with exclusive breastfeeding. The answers provided helped answer one of the research questions of the study which sought to explore coping mechanisms of mothers who had resumed employment.

Mothers generally acknowledged that employment compromised exclusive breastfeeding due to working outside and far away from home and for long hours. A lot of the mothers interviewed were not exclusively breastfeeding because of stressful nature of work, past experience and lack of workplace and partner support. Those who were exclusively breastfeeding were able to do so due to two main factors; their determination to exclusively breastfeed and work, and adequate support from family and workplace. The chapter begins with brief background of mothers interviewed, followed by the various themes emanating from the interviews.

Background Characteristics of Mothers Interviewed

The background characteristics of mothers interviewed are summarised in Table 26. Of the 32 interviews conducted, 24 were in Accra Metropolis and eight in Wa Municipality due to the number of child welfare clinics involved in the study in both study areas.

Table 26:

Background Characteristics of Mothers Interviewed

Characteristic	Accra Metropolis		Wa Municipality	
	F	%	F	%
Age(years)				
20-24	4	16.6	1	12.5
25-29	7	29.3	1	12.5
30-34	9	37.5	3	37.5
35-39	4	16.6	3	37.5
Total	24	100.0	8	100.0
Marital Status				
Married	22	91.6	8	100.0
Cohabiting	2	8.4	0	0.0
Total	24	100.0	8	100.0
Level of Education				
SHS	0	0.0	2	25.0
Voc/Tech	4	16.6	1	12.5
Training	7	29.2	0	0.0
Tertiary	13	54.2	5	62.5
Total	24	100.0	8	100.0
Type of Employment				
Teacher	18	75	5	62.5
Bank worker	3	12.5	1	12.5
Health worker	1	4.2	2	25
Manager/assistant	2	8.3	0	0.0
Total	24	100.0	8	100.0
Religion				
Christianity	21	87.5	5	62.5
Islam	3	12.5	3	37.5
Total	24	100.0	8	100.0

Source: Field Survey, Sika-Bright (2016)

The ages of participants were between 22 and 37 years. Almost all mothers interviewed were married with the entire participant in Wa Municipality married and only two participants in Accra Metropolis were cohabiting. All mothers interviewed had attained formal education. Thirteen and five mothers in Accra Metropolis and Wa Municipality respectively had some tertiary education. In all, eighteen had tertiary education with the remaining had secondary and or vocational school. In terms of employment, mothers who were teachers dominated mothers in other employment categories in both Accra Metropolis and Wa Municipality (Table 26). With reference to religion, the majority of mothers interviewed in both study areas were Christians with three mothers each in both study areas being Muslims.

Major Themes from Interviews with Employed Mothers

In all 32 in-depth interviews, several similar themes and subthemes emerged. As reported below, the main areas of discussion were challenges of mothers regarding breastfeeding exclusively and employment and ways of combining exclusive breastfeeding and employment. Embedded in these two major themes are sub-themes which have been well expanded in the subsequent paragraphs of the Chapter.

Challenges of employed Mothers regarding Exclusive Breastfeeding

The researcher asked mothers to express their experiences with exclusive breastfeeding now that they have resumed employment. Interviews revealed that mothers' employment posed a challenge to exclusive breastfeeding practice of the majority of employed mothers. Some identified

reasons for this were stressful nature of work, lack of support from work colleagues and partners and past experiences.

Table 27 presents reasons given by mothers in this study on challenges faced with exclusive breastfeeding. Mothers indicated multiple challenges inhibiting their exclusive breastfeeding practices.

Table 27:

Codes for Mothers' Reasons for not Exclusively Breastfeeding

Code	Definition	Accra Metro (F=16)	Wa Muni (F=3)	Total (n=19)
Stressful nature of work	Working for long hours, away from home, and more tasks to perform at work	12	2	14
No support at workplace	Co-workers and supervisors do not encourage mothers to exclusively breastfeed	7	2	9
Lack of partner support	Discouragement from partners claiming 'ownership of the breast'	1	0	1
Based on past experiences	Unpleasant past experiences in transiting infants to complementary foods	2	1	3

Source: Field survey, Sika-Bright (2016)

Stressful nature of work

Fourteen of the 32 mothers interviewed in both study areas associated their difficulty in sustaining exclusive breastfeeding after resuming employment to stressful working conditions. Twelve mothers in the Accra Metropolis and two from the WA Municipality expressed this challenge. To these mothers working hours, distance of their workplaces from home coupled with vehicular traffic compromised timely feeding and feeding on-demand basis of their infants during working hours. This to them left their infants hungry and in distress. In the words of a 31 year old health worker from the Wa Municipality:

Sometimes I even want to go home and feed my baby during lunch breaks but where I work is very far from home, so by the time I get home the break will be over.

Confirming this, a 28 year old manager in Accra Metropolis expressed that:

I could have come home almost every working day to breastfeed my baby if the workplace is near, but it is very far and I have to be in traffic for hours so I only breastfeed when the day is over (Manager).

This finding is generally similar to findings of other studies which showed that maternal employment outside the home is a major challenge to exclusive breastfeeding (Heurta et al., 2011; Nair et al., 2013; Newman & Pittman, 2000; Poduval & Poduval, 2009; Raisler, 2000). Raisler (2000) identified these compromises as logistical barriers for the breastfeeding mothers. To him, it could be very difficult for employed mothers to maintain constant breastfeeding of their infants at the workplace due to long hours of work and the structured nature of work. Poduval and Poduval also reported in

2009 that mothers who engaged in employment soon after birth experienced low productivity as they are not able to concentrate on their tasks at work.

It was also established that combining work with breastfeeding posed challenges of concentration and health challenges for working mothers. While some complain about pain and swelling of their breast due to their inability to breastfeed their infants on-demand, others expressed that they were unable to concentrate on their work because they feel anxious and worried about infants. Eventually most of the mothers opined that they were experiencing low milk supply as they resumed employment. To a 32 year old teacher in Wa Municipality:

My breast becomes heavier and it swells because it accumulates breastmilk for long. This is very painful all because I have to go to work and stay there till I close at 12pm....hmmn it's not easy ooo.

This was corroborated by 29-year-old banker in Accra Metropolis:

It is very challenging for me because my breasts become heavy and at times the milk will be dripping and soiling my office dress. When this happens and I go home after work, I can't get enough breastmilk for my infant.

To another whose effect was inability to concentrate at work:

For me, I am not comfortable at all leaving my baby at home so when I go to work, I am not myself, I cannot even concentrate on my tasks, just itching to close and go home (A 26 year old health worker in Accra Metropolis).

Newman and Pittman (2000) reported similar findings noting that the mother and the infant need regular contact to sustain lactation and that the separation of mothers from their babies leads to insufficient milk supply. Further, Alina and colleagues (2012), in the study of breastfeeding and employment in Malaysia, discovered that employment poses critical barriers to exclusive breastfeeding as mothers reported stress from work as the main reason for stopping breastfeeding.

Looking at this finding in the light of socialist feminism perspective, the employed mother's experiences stressful nature of employment and the maintenance of exclusive breastfeeding can be framed in the capitalist patriarchy. This is where mothers experience the dual structural oppressions operating in the lives of women (Eisenstein, 1988). Exclusive breastfeeding is a form of labour but it is almost always invisible given no exchange value and not regulated through market mechanisms (Smith & Ingham, 2005). So employed mothers who feel stressful about combining employment with exclusive breastfeeding usually abandon exclusive breastfeeding and resort to mixed or formula feeding.

Lack of support at the work place

In addition, lack of support from the workplace was identified as a contributing factor to mothers' difficulty to continue with exclusive breastfeeding. Nine of the 32 mothers interviewed noted that their inability to exclusively breastfeed after resumption of employment is because they had no support at the workplace. Although breastfeeding support at the workplace is acknowledged to be critical in achieving exclusive breastfeeding these mothers mentioned that they felt very little and sometimes no co-worker and supervisor

support for breastfeeding. Rather they were in some instances encouraged by colleagues to mix feed. For instance a 36 year old teacher in Accra Metropolis expressed that

I have stopped breastfeeding exclusively because even at work, my colleague teachers keep telling me that they all did mixed feeding so I should buy formula and be 'free'.

This finding is in line with Gatrell who found out that breastfeeding mothers were not encouraged to breastfeed as it was considered a 'taboo' (Gatrell, 2007). Such supervisor and co-worker supports are framed in the symbolic interactionist framework as these supports are sources of influence from reference others on mothers' behaviour. As such where these supports are lacking and/or discouraging (behaviours exclusive breastfeeding), mothers are most likely to stop breastfeeding exclusively. Further, Guendelman and colleagues also confirmed that lack of support at the workplace made it difficult for mothers in their study to juggle employment and exclusive breastfeeding (Guendelman et al., 2009).

Lack of partner support

To the striking response on partner support, a participant expressed that her husband was the main reason why she stopped breastfeeding entirely. According to her, she couldn't even do mixed-feeding because of constant pressure from her husband to stop breastfeeding because he[the husband] wants to start 'using the breast'.

Partners are also seen as significant others for mothers in symbolic interactionist terms. As such where mothers experience exclusive breastfeeding

disapproval from their partners in any form, as the case of the 26 year old teacher in this study, they are more likely to extinguish exclusive breastfeeding.

Such pressures from partners can be understood in the light socialist feminism. Exclusive breastfeeding in capitalist patriarchy raises micro level implications that may be quite difficult for many mothers. Breasts are becoming highly sexualized in our culture (Bentley, Dee, & Jensen, 2003; Palmer, 2004) especially in urban setting. Most partners see the breast as sexual objects for their enjoyment, as such the nurturing role of the woman's breast is of less importance (Palmer, 2004). The reduction of the breasts to sexual organs conflicts with the nurturing role it plays and thus presents difficulties for women who breastfeed exclusively.

This finding is also in line with works such as Scott et al., (2001); Wambach and Cole (2000) which confirm that in most cases partners held negative attitudes towards breastfeeding and thus affect mothers' decision to breastfeed and for that matter breastfeed exclusively. Losch et al., (1995) found out that fathers disapproved breastfeeding because they believed that "breastfeeding is bad for the breasts and interferes with sex" (p. 509).

Unpleasant past experiences

The challenge with past experience was expressed by three participants. These mothers had had unpleasant past experiences with their previous babies when they were transiting them to others foods. According to them their babies refused other foods when introduced and that affected their work. A 28 year old manager interviewed in Accra Metropolis mentioned that:

My child will not eat anything even her after sixth month.

Anything I gave her, she vomited it and that wasted my

time as I have to visit welfare clinic several times. So this time I started mixed feeding even before I resumed employment.

It can be seen from the interviews so far that most employed mothers' inability to engage in exclusive breastfeeding after resuming employment is due to employment factors such as stressful nature of work and lack of support from supervisors and co-workers.

Combining Exclusive Breastfeeding and Employment

The few mothers who were able to exclusively breastfeed after resuming employment in both study areas (Accra Metropolis=8; Wa Municipality=5) were asked of how they managed to combine exclusive breastfeeding and employment. Following the analysis of the interview data related to how employed mothers coped with exclusive breastfeeding, two major themes emerged in relation to the mothers' readiness to make it work and support from both home and workplace. The themes are presented and discussed below.

Readiness to Breastfeed and Work

Mothers expressed that they managed to exclusively breastfeed and work by reconditioning and readjusting their time and daily activities. Here mothers tried individually to strategise and achieve tasks that allowed them to have time to continually breastfeed their infants. Whiles some mothers plan their activities beforehand, others managed to finish their task at work early to enable them have time to breastfeed their infant. Others too have to personally negotiate convenient times of work with their colleagues and superiors at the

workplace. For instance, A 31year old teacher in Accra Metropolis revealed how she personally managed to breastfeed and work successfully:

It has not been easy but I believe that you just have to be committed and plan ahead. I have to write all my lesson notes early during weekends, prepare foods for the fridge, storing expressed breastmilk. So for me even if am not around I make sure I have expressed some breastmilk for my baby.

A nurse in Wa Municipality also added her voice by saying that:

It is something you have to make up your mind that you will do it and work at it. When I decided to exclusively breastfeed to six months, I managed to arrange with my in-charge to only come for afternoon shift till my baby is six months old. With this arrangement, I am able to breastfeed well and my baby can manage the expressed milk in my absence (A 27 year old nurse).

A manager in Accra Metropolis summarized her experience with readiness to exclusively breastfeed and work as:

My work has never been a hindrance to my exclusive breastfeeding practice, It's something I have to do so I figured a way out to always perform my task at work early so I can have enough time to breastfeed my baby...the thing is..if you really want to exclusively breastfeed, you can find a way to make it work (A 30 year old Manager).

From the interviews with mothers in this category, it could be realized that mothers were determined to exclusively breastfeed at all cost and they went all length to make it work. The concept of resiliency was examined by Nichols and Roux (2004) in mothers who were breastfeeding while employed in the first postpartum year. Their findings just like that of the current study was that mothers were able to sustain exclusive breastfeeding because they were very much determined to balance multiple roles while breastfeeding and employed. These findings are similar to the present findings in terms of the mothers' struggling to secure sufficient time to maintain exclusive breastfeeding. Nichols and Roux's sample consisted primarily of educated, middle class adult American women, similar to the sample in the present research.

The present findings are consistent with much of the existing research. Yet some of the findings either were unique or differed from those of similar studies. For example, O'Brien et al. (2008) found that breastfeeding self-efficacy and dispositional optimism were significantly associated with longer breastfeeding duration. Similar to the present finding, maternal self-determination is crucial for maintaining exclusive breastfeeding after resuming employment. Most of the mothers however expressed stress or anxiety while maintaining exclusive breastfeeding and employment in this research. Only few mothers were determined to continue breastfeeding for as long as possible.

Again the finding of this study corroborates Rojjanisrirat and Sousa's (2010) research which included a finding related to the mothers' self-determination when they engaged in combining breastfeeding with employment. However, Rojjanisrirat and Sousa's (2010) data were collected via small focus groups with low income women prior to their return to work, many

of whom stated they were not planning to return to work. Ertem et al. (2001) examined predictors of early discontinuation of breastfeeding and found that maternal age under 20 years and low levels of maternal confidence were the most significant determinants of breastfeeding discontinuation prior to 2 months of age. The finding of the significance of maternal confidence, a concept similar to the concept of maternal self-determination, is relatively consistent with findings in the present research.

Explaining mothers' determination to exclusively breastfeed and work at the same time in symbolic interactionist terms is part of mothers' knowledge construction process (Bartlett, 2002). The physiology of breastfeeding gives mothers the opportunity to consider the importance of the operations of their own flesh, blood, cells, genes and hormones. Going through the process of exclusive breastfeeding is part of interactionists' concept of the mind. Determined to exclusively breastfeed in the light of employment challenges mothers persevere through painful experiences because breastfeeding holds personal importance and significance beyond such discomfort (Cooke, Sheehan, & Schmied, 2003). This is a decision mothers make based on the symbolic meaning attached to breastfeeding in society.

Support Mothers receive from Home to Exclusively Breastfeed

Mothers also, in addition to being determined to exclusive breastfeed, indicated that they were able to combine exclusive breastfeeding with their employment because they received various forms of family and workplace support. Family support mothers received included paternal/partner support, and grandmother (maternal) support. Partner or paternal support received by mothers mainly bordered on the performance household chores, verbal

encouragement to exclusively breastfeed and providing positive information on breastfeeding issues. Of these three forms of support from partners, most mothers readily identified the role of fathers in assisting with household chores as being most helpful in achieving exclusive breastfeeding. Mothers saw this assistance as indirect form of support to lessen their load so they can devote more time energy to exclusively breastfeed. Common examples of household chores identified by mothers include cleaning the house, cooking, shopping, and caring for the baby. According to one bank worker in Accra Metropolis:

I have a very understanding husband, he has been very helpful to me and the baby, and he helps with all home chores. Anytime I send him to go and buy pampers he does it without complaining. Can you imagine he wakes up with me at midnight and dawn to help me care for the baby? I just pray he remain the same (A 30 year old banker).

A 28 year old teacher in Wa Municipality expressed the support she received from her partner as follows:

My husband has been one of the main reason why I exclusively breastfeed. He is always available to help in the house. He doesn't even mind to cook. Anytime I am working on my lesson notes and other teaching aids, he will hold the baby for me. I count myself as very lucky to have such a man.

Some mothers also mentioned that their husbands/partners encourage them and assist them with vital information on breastfeeding issue and challenges. Such

activities from fathers also served as a source of exclusive breastfeeding support for mothers. The experience of a 32 year old teacher in Wa Municipality is capture here as follows:

When I started breastfeeding my baby I had low breast milk so I wanted to stop but my husband encouraged me to try harder. He will 'google' information for me and call his friends who are health workers to ask questions on breastfeeding for me. Sometimes he even calls his mother (my in-law) for advice when I am experiencing difficulty in breastfeeding. I feel very encouraged to breastfeed as he does those things.

Mothers who had their husbands/partners actively involved in ensuring that they breastfeed felt supported to exclusively breastfeed and work. In discussing paternal support for breastfeeding mothers with literature, the findings of the current study is consistent with findings of several previously conducted studies that cite assistance with household chores as an action fathers can engage in to be supportive of breastfeeding (Pontes, Osorio, & Alexandrino, 2009; Rempel & Rempel, 2011). Sullivan and colleagues (2004) reported that a mother's greater responsibility for household chores increased risk for early breastfeeding cessation; the authors suggested that assistance with household chores by a father may free the mother some additional time to breastfeed.

However, another study that analyzed a secondary data set of Japanese couples found that a father's assistance with housework was not associated with exclusive breastfeeding during the first six months post-partum (Ito, Fujiwara, & Barr, 2013). This contradicts the findings of the current study which suggests

that paternal assistance with domestic chores is influential on mothers' exclusive breastfeeding behaviour. This contradiction may be due to methodological differences. The authors therefore concluded by calling for further research using qualitative methods to better understand the relationships between a father's assistance with house chores and exclusive breastfeeding.

Another study conducted by Tohoatoa and colleagues (2013) sought to identify Australian parents' perceptions of what constitutes support for breastfeeding, specifically focusing on paternal support. It was found that several forms of support were important to mothers, including assistance with meal preparation, housework such as washing dishes and/or clothes, shopping, bathing the baby, bringing the baby to the mother for a night-time feed etc. (Tohoatoa, Maycock, Hauck, Howat, Burns & Binns, 2013); all of these forms of support are consistent with the findings of the current study, and represent perceived forms of support identified by employed mothers.

Mothers in the current study also identified encouragement from fathers as support for exclusive breastfeeding and this is consistent with findings of previously conducted studies. Rempel and Rempel (2011) found out that fathers role of supporting breastfeeding with their knowledge and encouraging mothers influenced breastfeeding positively. Also a more current study reports that lactating mothers with partners who verbally encouraged breastfeeding had higher self-efficacy regarding breastfeeding (Mannion, Hobbs, McDonald & Tough, 2013). In their qualitative study to determine what constitutes support for breastfeeding, Totohoa and colleagues (2013) also report verbal encouragement as a perceived form of paternal support identified by both mothers and fathers.

Paternal support for breastfeeding mothers as reported by the mothers in this study can also be understood in the light of the socialist feminism and symbolic interactionist perspectives informing this study. Socialist feminism encourages a value of equity in family roles. Often, more domestic work needs to be done by a partner of a nursing woman because mostly the mother is the only one who can sit down to nurse the crying baby (Sullivan, Leathers, & Kelley, 2004). Lack of such support for most mothers means parenting alone, carrying out the entire load of domesticity and income earning (Bick, Macarthur & Lancashire, 1998). Mothers in this condition therefore become tired to engage in exclusive breastfeeding. This may partly explain poor infant feeding behaviour. In symbolic interactionist's term, fathers are significant others for breastfeeding mothers as such when fathers support exclusive breastfeeding, mothers are most likely to exclusively breastfeed.

Mothers also mentioned the enormous role performed by their mothers in assisting them to breastfeed. Mothers mentioned that their mothers (maternal grandmothers of the babies) usually come and stay with them soon in the first one year postpartum. During their stay, they offer several forms of support to ensure that mothers overcome any breastfeeding challenges. According to the mothers, their mothers were in-charge of bathing the baby, changing diapers, cooking, caring for the baby when mothers go to work and offering breastfeeding and child caring advice. Some mothers mentioned that grandmothers usually bring the baby to the workplace to be breastfed during breaks. While mothers expressed that grandmothers were not in total support of exclusive breastfeeding for six months, they admitted that the support they receive from grandmothers cannot be overlooked when it comes to

breastfeeding exclusively and working at the same time. In the words of a 27 year old manager in Accra Metropolis,

My mother is with us at the moment and she contributes to helping me to exclusively breastfeed. She takes care of the baby when I go to work, feeds him with expressed milk, bath him for me morning and evening. So with this support I am able to do the exclusive.

According to another banker in Wa Municipality,

My mother has been very helpful. This is my first child so mum takes charge of all the baby related issues. My only problem is that she wanted me to give the baby water, but I made her understand that I am doing exclusive for six months. So she supports me by bringing the baby to my workplace so I can breastfeed her[baby] constantly (A 27 year old banker).

Family support for employed mothers especially those from husbands and grandmothers are seen as very critical in achieving optimal breastfeeding and for that matter exclusive breastfeeding for mothers. Grandmothers are also reference points in symbolic interactionists terms and as such have some level of influence on mothers behaviour. Several studies emphasise the role of grandmothers in the lives of breastfeeding mothers (Bezner Kerr et al., 2008; Dettwyler, 1995). Grandmothers usually perform roles that free mothers to breastfeed. However, studies have shown that grandmothers usually sabotage optimal breastfeeding especially by providing misinformation and counter information Dettwyler (1995) concludes that in situation where grandmothers

themselves did not breastfeed, it is difficult for them to support exclusive breastfeed of their daughters. Bezner Kerr and colleagues (2008) also concluded that grandmothers often differ in their ideas about early child feeding from conventional medicine. The case of a participant in the current study confirms grandmothers' attitudes towards exclusive breastfeeding as exposed by literature.

Literature is replete with evidence that shows that grandmothers have a negative impact on breastfeeding sustainment (Emmott & Mace, 2015; Pikuskas, 2014; Susin, et al., 2005). Nevertheless, there has been research that has shown that grandmothers can exert a positive influence on health behaviors related to breastfeeding (Bentley, et al., 2003; Grassley & Eschiti, 2008). This discrepancy could be due to the different perceptions of the mothers and grandmothers as to what is helpful versus unhelpful support. Goldsmith (2004) discussed the differences between helpful and unhelpful enacted support and how that even though support was offered by the grandmothers, the support was not perceived as being effectual in assisting with the demands or stress of breastfeeding. The current study found grandmothers support as helpful for breastfeeding mothers who were employed.

Mothers also identified workplace support as contributing to their ability to exclusively breastfeed when they resumed employment. Many women in this study returned to work after exhausting their three months maternity leave and continued to breastfeed. Women referred to their situation as being "very lucky" or "very fortunate" that they could continue to breastfeed after their return to work due to the support they received at their workplaces. Mothers' reported workplace support was more of "support in kind" other than logistical support.

For instance, they mentioned there were no designated place at work to pump or sit and breastfeed their babies (pump rooms), and there was no place to store expressed milk. However, colleagues and supervisors offered other forms of support that were helpful for mothers to maintain exclusive breastfeeding whiles they resume employment. Mother expressed that their colleagues and supervisors understand their situation and their needs and therefore were kind towards them. A 27 year old nurse in Wa Municipality who was able to exclusively breastfeed mentioned that

If not for my 'in-charge' who gave me permission me to come for only afternoon shifts I wouldn't have been able to exclusively breastfeed.

A banker in Accra metropolis also shared her experience as follows:

My workplace had no private room to breastfeed so I thought I will breastfeed in the presence of my officemates, but my supervisor arranged private space for me even before I resumed. This has been helpful because I wouldn't have been comfortable breastfeeding in front of my officemates, some of which are males (A 28 year old banker).

A 30 year old teacher in Accra Metropolis also narrated her experience of support from her colleague teachers and headmaster at school. According to her each time she brings the baby to school, colleagues, especially the females, would take the baby whiles she (mother) teaches. Her headmaster also make sure that she close at 12pm during even if she is not done with her teaching. She expressed her experience as follows:

My headmaster and colleague teachers, especially the females had been very helpful since I resumed employment. I don't even realise that I have resumed duty...I am able to breastfeed my baby the same way I used to breastfeed him when I was on leave. This is because I am able to take him [baby] to school every day and my female colleagues at their free periods will carry and care for him whiles I teach. The headmaster also makes sure I enjoy my half-day even if I have not finished teaching. I pray every mother gets this opportunity.

Support at the workplace for breastfeeding mothers is therefore crucial for mother to maintain exclusive breastfeeding and work. Even in the absence of logistical support for lactating mothers at the workplace, mothers found workplace support 'in-kind' as very helpful for them to exclusively breastfeed.

In looking at workplace support for lactating mothers in the light of literature, the findings of the current study buttress findings of several studies (see Britton et al., 2007; Clifford & McIntyre, 2008; Gatrell, 2007; Payne & James, 2008; Bai et al., 2008; Wambach et al., 2005; Dennis, 2002). Britton and colleagues in 2007 found that work support was critical for lactating mothers. Inadequacy of such support affected mothers' breastfeeding behaviour. A systematic review by Clifford and McIntyre (2008) of 152 publications identified key breastfeeding support personnel as family, workplace and healthcare professionals. To them such support ensures mother breastfed appropriately. Gatrell (2007) also concluded in his study that lack workplace support for lactating mothers adversely affected their breastfeeding habit. Payne

and James (2008) also underscored the importance of workplace support for breastfeeding to the extent that they recommended the development of structural workplace breastfeeding support strategies and declared breastfeeding support a social responsibility.



CHAPTER NINE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The present study sought to examine the relationship between exclusive breastfeeding and maternal employment in Accra Metropolis and Wa Municipality. The specific objectives were to:

1. Describe the exclusive breastfeeding knowledge and practices among employed mothers in Ghana.
2. Examine the nature of mother's employment and its relationship with exclusive breastfeeding.
3. Investigate the challenges to exclusive breastfeeding practice at the workplace.
4. Explore coping mechanisms adopted by employed mothers to sustain exclusive breastfeeding.

This final chapter brings the study to a conclusion by summarizing key findings and drawing conclusions. Based on the research findings, the chapter makes some recommendations for policy, practice and areas requiring further research. Finally, the chapter reflects over the entire research process, pointing out its strengths and limitations.

Summary

This study examined exclusive breastfeeding practices of employed mothers in the formal sector. The overarching objective was to examine from employed mothers' point of view how the nature of their employment

influences their opportunities to engage in exclusive breastfeeding practice and its implication for child feeding and care. Socialist feminism and symbolic interactionist perspectives served as theoretical guides for the study. Data for the study was obtained from 32 interviews and 721 surveys with employed mothers who had infants not older than six months selected from Accra Metropolis and Wa Municipality. The key findings are summarised as follows;

The background characteristics of employed mothers indicated that the majority were between the ages of 25 and 34 years, married had some tertiary education, worked as teachers and were Christians. Infants' background characteristics also indicated that most infants were born full term in government hospitals through normal delivery. Most of the infants were also first borns and were aged between 5 and 6 months.

Employed mothers also demonstrated that they had adequate knowledge about exclusive breastfeeding and admitted to its benefits for infants. Their main source of information on exclusive breastfeeding was health professionals. They were of the view that exclusive breastfeeding helps infants to grow faster, enables mothers to lose weight after pregnancy, helps the uterus to return to its pre-pregnancy stage, and provides immunization for the child.

Employed mothers' practise of exclusive breastfeeding also varied according to study area, with mothers in Wa Municipality practising exclusive breastfeeding more than their counterparts in Accra Metropolis. Background characteristics of both mothers and infants were related to exclusive breastfeeding. Whereas type of mothers' work, religious affiliation, mode of delivery and infants' age were significantly associated with exclusive breastfeeding practice of mothers in Accra Metropolis, marital status and age of

infants were associated with exclusively breastfeeding of mothers in Wa Municipality. Further analysis on the background characteristics of mothers in Accra Metropolis showed that mothers who were not religious exclusively breastfed likewise mothers who were teachers, health workers, and sales agents.

Results on the nature of mothers' employment showed that most mothers who participated in the study were full-time employees in the public sector with teachers dominating the public sector employees in both study areas. In both study areas also, the proportion of exclusively breastfeeding mothers was higher among private sector employees compared to those employed in public sector. Exclusive breastfeeding was also high among mothers who work on part-time basis compared to those who work on full-time basis. Most of the mothers occupied middle level positions and also described their employment as demanding. Mothers who occupying senior level positions in Accra Metropolis exclusively breastfed more than mothers in the same position in Wa Municipality. Meanwhile, mothers who occupy lower positions in demanding employments in Wa Municipality were exclusive breastfeeding more than their counterparts in Accra Metropolis.

The relationship between exclusive breastfeeding and maternal employment was tested using the Spearman rho and it was found that, whereas the relationship was statistically significant among mothers in Accra Metropolis, it was not significant among mothers in Wa Municipality. In other words, for employed mothers in Accra Metropolis, maternal employment was significantly associated with their exclusive breastfeeding practice unlike their counterparts in Wa Municipality.

Looking at the workplace barriers and exclusive breastfeeding, the duration of maternity leave of three months and below, lack of support from co-workers and supervisors served as barriers to exclusive breastfeeding for mothers employed in Accra Metropolis but were not barriers for mothers employed in Wa Municipality. Similarly, the presence of certain facilities at the workplace such as breaks for breastfeeding, refrigerator for storing expressed milk, half-day at work and private space for breastfeeding were facilitators for mother in Accra Metropolis but not for mothers in Wa Municipality.

The relationship between the availability of these facilities and exclusive breastfeeding practices of mothers in Accra Metropolis also differed according to mothers' type of employment in that, health workers who had refrigerators at the offices were exclusively breastfeeding at 80 percent. Sales agents who had half day at work and private spaces for breastfeeding were also exclusively breastfeeding at a higher rate.

Mothers' opinion from both study areas about employment and exclusive breastfeeding was that exclusive breastfeeding mothers should be employed, they should breastfeed at work, and they should be supported to breastfeed exclusively at work.

From interviews with the employed mothers it was realized that mothers found employment compromising exclusive breastfeeding to the extent that only a few could exclusively breastfeed after they resumed employment. The majority could not exclusively breastfeed because work was stressful, and they lacked workplace support. For those who were exclusively breastfeeding, family support and workplace support were found to be very helpful.

A combination of mothers' determination to exclusively breastfeed and work and support from family and workplace enabled employed mothers to sustain exclusive breastfeeding when they resumed employment. Husbands and grandmothers were seen to play key roles in the family support theme. They assisted with home chores, ran errands, provided breastfeeding information and advice and cared for the baby when mothers were at work. Exclusive breastfeeding mothers also felt much supported at the workplace. Co-workers and supervisors supported mothers by help carrying the child; making special arrangements for mothers to breastfeed at the workplace and making sure mothers enjoy their half-day at work.

Conclusions

Based on the key findings of the study, a general conclusion is that, breastfeeding infants exclusively for six months is difficult for mothers employed in the formal sector.

That, employed mothers in the formal sector of Ghana are highly educated, they patronise child welfare services. Exclusive breastfeeding knowledge among mothers was adequate and their attitudes toward breastfeeding were positive in general. However, unlike the case in Wa Municipality, the practice of exclusive breastfeeding among the employed mothers in Accra Metropolis is low. In this regard, mothers' employment has been shown as significantly associated with exclusive breastfeeding among mothers in Accra Metropolis. This study therefore delved deeper to examine mothers' nature of work and how it was related exclusive breastfeeding and based on the findings the following conclusions are further drawn.

Mothers employed in the private sector exclusively breastfed their infants more than those in the public sector. Also mothers employed on part-time basis exclusively breastfed their infant more than those employed on full time basis.

Mothers in senior level positions were exclusively breastfeeding in Accra Metropolis while those in junior level positions exclusively breastfed in Wa Municipality. Maternity leave of three months, lack of support from co-workers and supervisors were challenges to exclusive breastfeeding for mothers in Accra Metropolis.

Mothers who lack breastfeeding friendly facilities at the workplace (breaks and private space for breastfeeding, refrigerator to store breastmilk) exclusive breastfed at a lower rate.

Self determination and support (family and workplace) for mothers are very crucial in promoting exclusive breastfeeding practice.

Recommendations for Practice, Policy, and Research

For Practice

It is heartwarming that employed mothers received information about exclusive breastfeeding from healthcare professionals. However, literature suggests that exclusive breastfeeding information provided by healthcare providers may not be satisfactory for meeting the needs of breastfeeding mothers (Creedy, Cantrill, & Cooke, 2008; Dillaway & Douma, 2004, Geraghty, Riddle, & Shaikh, 2008). Therefore, it is recommended that the Ghana Health Service provides additional and continuous education with updated information regarding exclusive breastfeeding practice to help prevent

early supplementation of infant formula and ultimately the lead to early cessation of breastfeeding (Creedy et al., 2008; Hillenbrand & Larsen, 2002).

Fathers/partners and grandmothers provided exclusive breastfeeding support for the employed mothers in this study. These are considered as significant others in symbolic interactionist terms who are powerful in altering behaviours of those they interact with. As an important intervention, prenatal and post natal health professionals must include these support persons in all routine prenatal and postnatal education. Flexibility in scheduling and welcoming by means of a personalized letter may encourage the partner and other significant others to accompany mothers on check-up visits and in particular those that include discussions on various forms of infant feeding. In addition post natal health professionals should involve these significant others during briefing of mothers immediately after delivery at the health centers.. Such interventions will ensure that these support people feel included and knowledge regarding exclusive breastfeeding will be upheld as prior studies have found that the significant others want to be involved in the breastfeeding process but need information and knowledge to do so (Banks et al., 2013; Tohotoa et al., 2009).

To encourage employed mothers to exclusively breastfeed, employers/companies are called upon to allow breastfeeding employees to breastfeed or express milk during work hours using their normal breaks and meal times. In addition, employers should provide a private space at the workplace for breastfeeding employees to express breastmilk and breastfeed their babies. These rooms should be private and sanitary with fixed refrigerator, located near a sink with running water for washing hands and rinsing out breast

pump parts, and have an electrical outlet. If employees prefer, they should be permitted to breastfeed or express milk in their own private offices, or in other comfortable locations agreed upon in consultation with the employee's supervisor.

Supervisors are responsible for alerting breastfeeding employees about the company's lactation support policies and programmes, and for negotiating these policies and practices to suit breastfeeding mothers who resume employment. Employees should also assist in providing a positive atmosphere of support for breastfeeding employees as these forms of support were related to high exclusive breastfeeding rates in the current study.

Supervisors and co-workers in the public sector, and full-time employment should intensify the lactating support services for employed mothers. This is more likely to improve exclusive breastfeeding significantly as most mothers are employed on full-time basis and in the public sector.

Half-day at work was important for mothers who worked as sales agents, breaks for breastfeeding at the workplace was crucial for bankers and managers, private space to breastfeed at workplace was also important sales agents, clerks, typists and cooks while the presence of refrigerators at the workplace was important for health workers, cleaners and sales agents. Therefore in addition to providing general breastfeeding support for employed mothers, employers of the mentioned types of employment should make the provision of these facilities a priority to facilitate exclusive breastfeeding.

For Policy

This study certainly has some policy implications. First of all, mothers found the current duration of maternity leave inadequate for practicing

exclusive breastfeeding for six months. Few mothers in the current study who had more than three months of maternity leave were exclusively breastfeeding significantly more than their counterparts who had three months or less of maternity leave. It is recommended that the Ministry of Employment and Labour Relations amend the current Labour Act (2003) by extending the duration of the maternity leave to at least 4 months plus the 2 months annual leave making it six months for successful and less stressful exclusive breastfeeding for employed mothers.

In addition, various employers should also take the initiative to input in their policies an extension of the current maternity leave duration. Also employers could additionally support breastfeeding through the provision of on-site childcare policies, so that mothers could take occasional breastfeeding breaks and nurse their children at work, and also securely pump and store their breast milk for later feedings. Such supports would provide a conducive atmosphere for breastfeeding mothers to work while maintaining their goals for motherhood.

Secondly, the Ministry of Health (MoH) and the Ghana Health Service (GHS) should enforce the Baby-Friendly Hospital Initiative in all hospitals to assist breastfeeding mothers. In addition the Male-Involvement in Maternal Health policy should be expanded to include other key family members viz grandmothers as they also provide enormous assistance to breastfeeding mothers.

For Further Research

This study examined exclusive breastfeeding of employed mothers from the mother's perspectives; therefore further research is needed to examine the

perspectives of other important stakeholders viz employers, partners and health workers to identify related factors in order to inform policy and foster promotion of exclusive breastfeeding. In addition, the current study examined the phenomenon among only formal sector employees by focusing on only two municipalities located in the coastal and northern regions of Ghana. In this regard, further research is recommended to include breastfeeding mothers in the informal sector and also mothers in other geographical zones of Ghana. This will expand the exclusive-breastfeeding-maternal-employment discourse by coming out with findings that will inform policy that is all inclusive.

Research is needed to compare the scope of breastfeeding support necessary at different types of workplace settings, such as service versus non-service occupational sites of work. The mothers in the present study described lack of workplace support, securing private pumping space and milk storage space as being a continual challenge. The review of literature confirms this challenge for employed breastfeeding mothers (e.g., Abdulwadud & Snow, 2007; Brown et al., 2001; Cohen et al., 2002; Gatrell, 2007; Libbus & Bullock, 2002; Payne & James, 2008). Future research targeting a wider range of work settings would also provide valuable information for policy makers and employers in designing workplace support for breastfeeding mothers.

Research regarding both negative and positive paternal support for exclusive breastfeeding would benefit breastfeeding and employed mothers and their infants. Mothers made several references to the support they receive from their partners. One mother also discussed the difficulty she had with her husband who pressured her to abort her plans of exclusive breastfeeding because he (husband) wanted access to the breasts. This was a unique finding. Further

research could reveal more of such pressures breastfeeding mothers may be going through so they can be addressed.

Strengths and Limitations of the Study

There are several major strengths of this research study. First and foremost, this study used a mixed method approach to gather rich, in-depth personal accounts of employed mothers' experience of what it means to exclusively breastfeed. In addition, this methodology allowed for an emic perspective of employed mothers' personal experiences which led to a more in-depth understanding of the specific forms of challenges they face and support they receive. According to Patton (2002), the participants' reflections, conveyed in their own words, strengthen the validity and credibility of the research. As noted by researchers (Creswell, 2003; Grix, 2004; Bryman & Cramer, 1997), a combination of both qualitative and quantitative methods improves the chances of getting better, more reliable data and minimising the chances of biased findings.

Unlike previous studies that have been conducted to better understand breastfeeding practices, this study utilized a comparative design which allowed for the collection of data at from two study areas. A comparative design strengthened this study as employed mothers' breastfeeding practices were compared among respondents from both study areas bringing out new insights which most single studies will miss.

An additional strength of this study was that mothers' responses were categorized into according to their type of employment. This allowed for the comparison of how various employment situations influence mothers' exclusive

breastfeeding practices. This approach sets the current study apart from previous studies which categorized all types of employment as one in the analysis of the influences they pose to breastfeeding (see Danso, 2014; Mensah, 2011; DeRose, 2007). For instance, Danso (2014) examined exclusive breastfeeding practices among professionals working mothers in Kumasi. However, her study was very silent on how the practice differs across the various professions. Such a finding would have aided in understanding which professionals breastfeed exclusively and why. The current study addresses this gap by bringing out how exclusive breastfeeding experiences differ from one employment situation to another.

Finally, this study is one of the first to generate a new understanding of the phenomenon under study by relying on sociological perspectives and methods as an alternative in examining mothers' exclusive breastfeeding experience while employed. This is a significant departure from the existing, primarily public health, nutrition, and medical research which focus on educational interventions perceived to be of policy relevance (Amir, 2011; Coveney, 2005; Esterik, 2002). It is expected that the study findings will feed into generating new possibilities to addressing the challenges of employed mothers to enable them exclusively breastfeed and work.

Despite the substantial contributions of this study, some challenges and limitations remain. First, although this study attempted a comparison of the differences in exclusive breastfeeding practices of employed mothers in two areas (Accra Metropolis and Wa Municipality), the inter-area dynamics were not fully captured. Focusing on only employed mothers in the study areas

limited the study as the perspectives of others stakeholders, especially employers, would have improved the work immensely.

Furthermore, Accra Metropolis and Wa Municipality which served as the study areas for the study could not be representative of the phenomenon in Ghana. As a result the extent to which the findings could be generalized is quite limited.

Due to the nature of this study, collected data was partly self-reported from breastfeeding mothers, which lends itself to several limitations. One of such limitations is desirability bias in which participants may have expressed views which they believed to be socially acceptable and desirable to the researcher. When mothers were asked to identify challenges they faced in exclusive breastfeeding as they resume employment, mothers rarely identified any examples of efforts of their employers to ensure they breastfeed. Most of them complained of how stressful it was to breastfeed and work. Mothers may have responded as such in line with the societal expectation that it is difficult to breastfeed and work.

Finally, due to the high degree of subjectivity of qualitative research methods during both data collection and analysis, results are more easily influenced by the researcher's personal biases. Although the researcher personal bias was thoughtfully considered early on and special care was taken to lessen any potential bias, this may have impacted the development of the interview questions, how the questions were asked to participants, and what codes and themes were identified during the analysis phase.

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implications of this study as such; all the ethical concerns will be addressed. The study is being carried out in Wa Municipal and Accra Metropolis. It is expected to take place between November 2015 and April 2016.

I am by this letter humbly requesting you to grant me access to government run health facilities that run postnatal clinic services or child welfare (CWC) services in your Municipality. This will enable me to gain access to mothers and recruit them for the study.

I would be very grateful if you could grant my request.

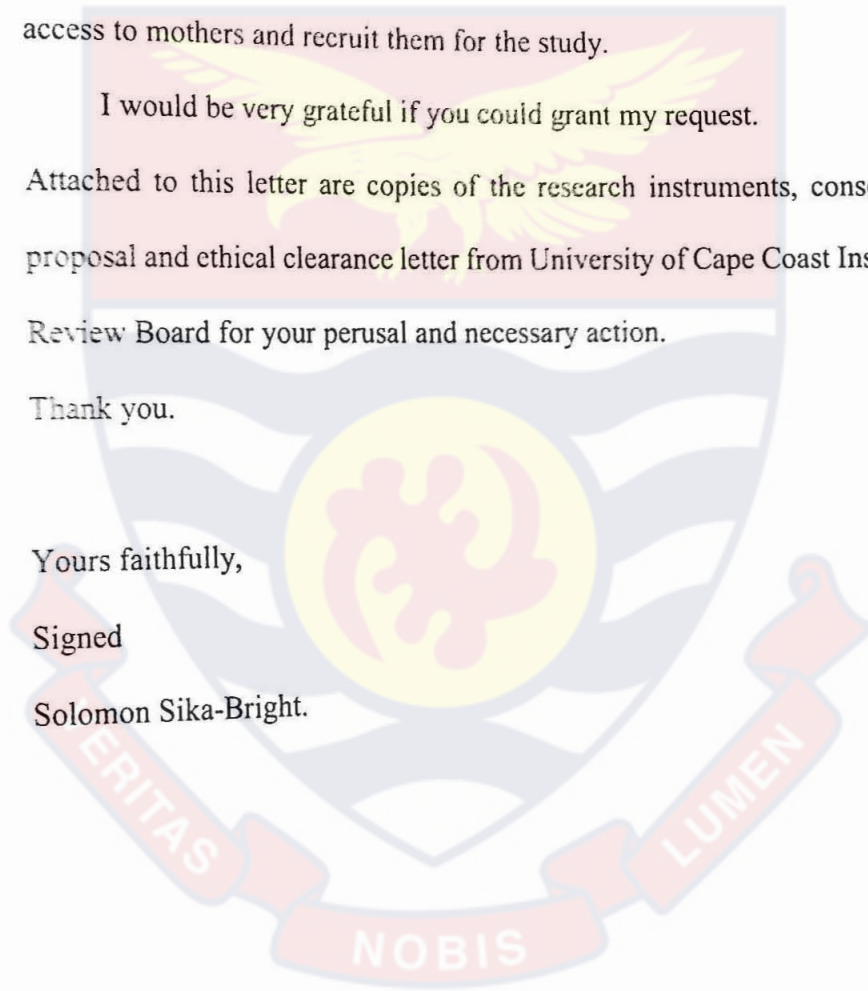
Attached to this letter are copies of the research instruments, consent form, proposal and ethical clearance letter from University of Cape Coast Institutional Review Board for your perusal and necessary action.

Thank you.

Yours faithfully,

Signed

Solomon Sika-Bright.



APPENDIX B**INFORMED CONSENT FORM**

Title: *A comparative study of Exclusive Breastfeeding Practices of Employed Mothers in Accra Metropolis and Wa Municipality Of Ghana*

Principal Investigator: Solomon Sika-Bright

Address: Department of Sociology and Anthropology, University Cape Coast, Cape Coast, Ghana.

General Information about Research

The main objective of the study is to examine the relationship between exclusive breastfeeding and the nature of maternal employment in Ghana. In other words, the study attempts to understand how the nature of mothers' employment influences their opportunities to engage in exclusive breastfeeding practice and its implications for child feeding and care. The study will gather socio-demographic information and some social and behavioural processes that employed mothers engage in as far as exclusive breastfeeding is concerned. The study findings will depend on surveys and interviews of employed mothers with infants not older than six months. The administration of the survey instrument will take approximately 45 minutes of each respondent's time, while each in-depth interview will last for 60 minutes. This is a one-on-one interview where the data collector will ask the participants some questions pertaining to the objectives of the study.

Procedures

To find answers to some of these questions, we invite you to take part in this research project. If you accept, you will be required to fill out a survey which will be provided by my research assistants or myself and when you finish answering, we will collect them. You might also be asked to participate in an in-depth interview with any of my research assistants or myself. You are being invited to take part in this study because we feel that your experience as an employed mother can contribute much to this study.

Your participation in this study is purely Voluntary

If you do not wish to answer any of the questions included in the survey, you may skip them and move on to the next question. The information recorded during the interview is considered confidential, and no one else except the principal investigator, Solomon Sika-Bright, will have access to your survey but he cannot even trace the information to you since your answers to this survey have no identifier to you. The expected duration of the interview will be approximately 60 minutes.

Possible Risks and Discomforts

There are no envisioned possible risks to you physically but should any question remind you of any uncomfortable breastfeeding experience and/or employment experience, you may refuse to answer it. At the same time, you are entitled to postpone the interview or withdraw from the study entirely if you find the questions unbearable.

Possible Benefits

The immediate benefit to you and your child will be the gift hamper you will receive for participating in the study. Besides the immediate benefit, employed mothers will also benefit in the long run as the study will unearth the challenges they face in maintaining employment while exclusively breastfeeding. Such information will be channeled in addressing these challenges for employed mothers. The infants will also have the opportunity to enjoy six months exclusive breastfeeding with many benefits regarding their wellbeing.

Confidentiality

The researcher is interested in building collaboration with the mothers and will like you to trust us. As such, we will protect your information to the best of our ability. Your name or identity will not be disclosed in any way. You will not be named in any reports that will be generated from this study.

Compensation

You will be compensated in kind for the time that you spend in participating in this study. We know that the compensation will not be enough for your time, but we just want to show you how grateful we are for your time. However, you will be offered the option of forgoing the gifts.

Additional cost

There will be no additional cost to you as a result of this study.

Voluntary participation and Right to Leave the Research

Your participation in this study is purely voluntary and you have the right to discontinue your participation in the survey or the interview at any point in time.

Contacts for Additional Information

You can contact the Principal Investigator of this study, Solomon Sika-Bright, if you have any other questions, complaints or suggestions about this study. Solomon Sika-Bright can be reached through mobile number 024-498-5804, or by email through sika-bright@ucc.edu.gh

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of the University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant, you can contact the IRB Office from Monday-Friday between the hours of 8:00am and 4:30pm on phone or by email. The contacts are as follows: Tel.: 0332135351; Cell Phone: 02896707934 (4) E-mail: irb@ucc.edu.gh.

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research titled: *A comparative study of Exclusive Breastfeeding Practices of Employed Mothers in Accra Metropolis and Wa Municipality Of Ghana*, has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer

Date_____
Signature or mark of volunteer

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

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

Date_____
Signature or mark of witness

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

Date_____
Name Signature of Person Who obtained Consent

APPENDIX C

QUESTIONNAIRE



UNIVERSITY OF CAPE COAST
COLLEGE OF HUMANITIES AND LEGAL STUDIES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

This instrument is aimed at soliciting your views on **Exclusive breastfeeding practices and maternal employment**. We will be grateful if you could spend a few minutes to answer the questions as candidly as possible. Please note that this is an academic study. Your views and opinions will therefore not be disclosed to any person and your identity will be safe guarded at all times. All of the answers you give will be confidential and will not be seen by anyone other than members of our research team. Participation in the survey is completely voluntary. However, we hope you will participate in it since your views are important.

Please tick in the boxes and write to fill out the spaces where necessary. Feel free to ask the researcher any question for guidance or clarification (0244985804).

SECTION I: FOR OFFICIAL USE ONLY

Q001	Questionnaire Number	
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SECTION A: DEMOGRAPHIC INFORMATION

Q1	How old are you? (Age in completed years)															
Q2	What is your current marital Status?	<table border="1"> <tr><td>Married</td><td>1</td></tr> <tr><td>Cohabiting</td><td>2</td></tr> <tr><td>Not in a union</td><td>3</td></tr> <tr><td>Widowed</td><td>4</td></tr> <tr><td>Divorced</td><td>5</td></tr> <tr><td>Separated</td><td></td></tr> </table>	Married	1	Cohabiting	2	Not in a union	3	Widowed	4	Divorced	5	Separated			
Married	1															
Cohabiting	2															
Not in a union	3															
Widowed	4															
Divorced	5															
Separated																
Q3	What is your highest level of education?	<table border="1"> <tr><td>No formal education</td><td>1</td></tr> <tr><td>Primary</td><td>2</td></tr> <tr><td>Middle/JSS/JHS</td><td>3</td></tr> <tr><td>Secondary/SSS/SHS</td><td>4</td></tr> <tr><td>Voc/Comm/Tech</td><td>5</td></tr> <tr><td>Post Sec (Nursing/Teacher Trg)</td><td>6</td></tr> <tr><td>Tertiary</td><td>7</td></tr> </table>	No formal education	1	Primary	2	Middle/JSS/JHS	3	Secondary/SSS/SHS	4	Voc/Comm/Tech	5	Post Sec (Nursing/Teacher Trg)	6	Tertiary	7
No formal education	1															
Primary	2															
Middle/JSS/JHS	3															
Secondary/SSS/SHS	4															
Voc/Comm/Tech	5															
Post Sec (Nursing/Teacher Trg)	6															
Tertiary	7															
Q4	What is your religion?	<table border="1"> <tr><td>No Religion</td><td>1</td></tr> <tr><td>Christianity</td><td>2</td></tr> <tr><td>Islam</td><td>3</td></tr> <tr><td>Traditional African Religion</td><td>4</td></tr> <tr><td>Other religion (specify).....</td><td>5</td></tr> </table>	No Religion	1	Christianity	2	Islam	3	Traditional African Religion	4	Other religion (specify).....	5				
No Religion	1															
Christianity	2															
Islam	3															
Traditional African Religion	4															
Other religion (specify).....	5															
Q5	What is your ethnic group?															
Q6	Please classify your monthly income according to the categories provided.	<table border="1"> <tr><td>Less than 500GHS</td><td>1</td></tr> <tr><td>Between 500 and 1000GHS</td><td>2</td></tr> <tr><td>Between 1000 and 2000GHS</td><td>3</td></tr> </table>	Less than 500GHS	1	Between 500 and 1000GHS	2	Between 1000 and 2000GHS	3								
Less than 500GHS	1															
Between 500 and 1000GHS	2															
Between 1000 and 2000GHS	3															

Q7	Do you work outside the home?	More than 2000GHS	4
		Yes	1
Q8	Do you consider where you work as a	No	2
		Private sector	1
		Public sector	2
Q9	Where do you get water for use in your home?	Other.....	3
		Running pipe borne water in the "house"	1
		Community tap	2
		Stream/River/Dam	3
Q10	Which of the following people live with you in your house/dwelling (for at least three months of the year)?	Other specify.....	4
		Husband	Yes 1
		Fiancée	No 2
		Parents	1
		Grandparents	2
		Siblings/other family	1
		Friends	2
		Children	1
			2
Background of Baby			
Q11	How old is your baby?		
Q12	How long were you pregnant with your baby ?		
Q13	Who assisted in the delivery of your baby?	No one	1
		Doctor	2
		Nurse/Midwife	3
		Traditional birth attendant	4
		Relative /friend	5
		Other (Specify)	6
Q14	Where did you give birth to your baby?	Home	1
		Govt. Hospital/Clinic	2
		Private Hospital/Clinic	3
		Other (specify)	4
			
Q15	Was your baby delivered by caesarian section?	Yes	1
		No	2
Q16	What is the birth order of this child?	1	1
		2	2
		3	3
		More than three	4

SECTION B: EXCLUSIVE BREASTFEEDING KNOWLEDGE AND PRACTICES

Q17	Have you heard of the term "exclusive breastfeeding"?	Yes	1
		No	2
	a) If yes, what do you understand by it?		
			
			
Q18	Circle all that apply		

	If your answer to Q17 is "Yes", where do/ did you receive exclusive breastfeeding information from?	Mother Radio Mother-in-law Doctors Father Books School Husband	Grandmother Nurse Grandfather Newspaper Friend Lactation consultant Television Internet
		Other Specify	
Q19	Do you agree that exclusive breastfeeding is the best way of feeding babies aged below six months?	Agree Neutral Disagree	1 2 3
	Please explain your answer to Q 19		
			
			
			
Q20	What do you currently feed your baby with?	Breast milk alone Formula alone Breast milk and formula Other specify	1 2 3 4
	What informed your feeding practice in Q20		
			
Q21	Who advised you on what to feed your baby with?	No one Self Nurse Counselor Friends Media Family Other specify...	Yes 1 1 1 1 1 1 1 1 No 2 2 2 2 2 2 2 2
Q22	Do you give your baby any of these?	Animal milk (cow/goat) Water Tea Cereals/porridge Vegetables/ fruit juice Medication(syrup) Traditional medicines	Yes 1 1 1 1 1 1 1 No 2 2 2 2 2 2 2
Q23	At what age would you give/did you give your baby other drinks or food apart from breastmilk?		
Q24	Statements about knowledge of exclusive breastfeeding	T	F
	a. EBF helps infants to grow faster than other infant feeding practices	1	2

	b. EBF helps mothers to lose weight after pregnancy	1	2
	c. EBF helps the uterus to return to its pre- pregnancy state more quickly	1	2
	d. EBF provides infants with the same nutrients as formula feeding	1	2
	e. EBF provides all the essential nutrients for infants	1	2
	f. EBF best immunizes infants against all illness	1	2
SECTION C: NATURE OF MOTHERS' WORK AND EXCLUSIVE BREASTFEEDING			
Q25	What kind of work do you do?.....		
Q26	Are you working on	Part-time basis Full time basis Other specify.....	1 2 3
Q27	How will you describe your work?	Very demanding Averagely demanding Not demanding	1 23
Q28	What is your position at the work place?		
Q29	Are you entitled to maternity leave?	Yes No	1 2
	If yes, how many weeks did/ will you stay at home with your baby before returning to regular work (maternity leave)?		
Q30	Did/ will you breastfeed your baby when you return(ed) to work?	Yes No	1 2
	If no, what will/did you feed your baby with?		
Q31	Did/will you get support from your co-workers for your continued breastfeeding?	Not at all Very little Some Very strong N/A	1 2 3 4 5
Q32	Did/ will you get support from your supervisor/superior/boss for your continued breastfeeding?	Not at all Very little Some Very strong N/A	1 2 3 4 5
Q33	Do you have breaks for breastfeeding at the work place?	Yes No	1 2
	If yes, how many hours per day?.....		
Q34	What was your experience with your milk supply as you continued working and breastfeeding? (Did you have enough?)		
Q35	Is there anything else you would like to say about your experience with breastfeeding and work?.....		

Q36	Do you think the weather in this region can influence the way you feed your baby?	Yes	1
	Please explain your answer to Q35	No	2
.....			
SECTION D: EMPLOYMENT BARRIERS REGARDING EXCLUSIVE BREASTFEEDING			
Q37	Does your baby attend a day-care near your work place?	Yes	1
		No	2
Q38	Women who breastfeed their infants should be allowed longer maternity leaves than women who do not breastfeed their infants.	Strongly agree	1
		Agree	2
		Neutral	3
		Disagree	4
		Strongly Disagree	5
Q39	Women should breastfeed their infants or express their breast milk during working hours.	Strongly agree	1
		Agree	2
		Neutral	3
		Disagree	4
		Strongly Disagree	5
Q40	Does your work provide a refrigerator to store breast-milk?	Yes	1
		No	2
Q41	Does your employer provide private spaces at work for women to breastfeed their infants at work?	Yes	1
		No	2
	If no, how do you breastfeed at work?.....		
Q42	Do you have half day at work after resuming?	Yes	1
		No	2
Q43	Are there other arrangements provided by the employer for working mothers? If yes, list some of them		
SECTION E: OPINION ON GENERAL EXCLUSIVE BREASTFEEDING AND EMPLOYMENT A=agree, N=neutral, D= disagree			
		A	N
Q44	Exclusive breastfeeding mothers should not work outside the home		
Q45	Breastfeeding or expressing breast milk in the workplace will interfere with work productivity		
Q46	It is acceptable for mothers to breastfeed their infants during working hours.		
Q47	I will support women who breastfeed or express breastmilk in the workplace		
Q48	It is important that employers support breastfeeding in the workplace		
Q49	It is important for co-workers to support breastfeeding at the workplace		

Thank you for your time

APPENDIX D

INTERVIEW GUIDE



UNIVERSITY OF CAPE COAST
COLLEGE OF HUMANITIES AND LEGAL STUDIES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Components for interviewer	
Introduction • Thank you • Your name • Purpose • Confidentiality • Duration • How interview will be conducted • Opportunity for Questions • Signature of consent	I want to thank you for taking the time to meet with me today. My name is _____ and I would like to have a conversation with you about your experiences and opinions about exclusive breastfeeding and maternal employment. This interview is for academic purpose and I am hopeful that it will capture lessons that can be used to generate knowledge and influence policy. The interview should take less than an hour. I will be taping the session. I will also be taking some notes during the session so that I don't miss any of your comments. All responses will be kept confidential. This means that your interview responses will only be used by the principal investigator and I will ensure that any information included in the research report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time. Are there any questions about what I have just explained? Are you willing to participate in this interview? _____ Interviewee Witness Date
Questions • Ask factual before opinion • Use probes as needed	1) Tell me what you think of exclusive breastfeeding. 2) Are you breastfeeding your baby? How are you doing it? 3) How do you maintain exclusive breastfeeding now that you have resumed employment? 4) How did you initially make the decision to continue exclusive breastfeeding while employed?

	5) a) What factors or people influenced your decision the most? b) Can you describe anything that may have contributed to your decision to continue (or discontinue) to breastfeed and/or pump breast milk after returning to work? 6) Describe the resources that have been most helpful during your breastfeeding- employment experience. 7) Describe a typical day at work since returning to work. 8) Describe any difficulties or opportunities your employment poses to exclusive breastfeeding. 9) What is your opinion about the current maternity leave policy at your workplace? 10) Describe any mechanism your employer has put in place to support breastfeeding mothers at your workplace. 11) How do your colleagues at work treat you when you breastfeed at work? 12) Do your supervisors allow you to take time off to breastfeed your baby during working hours?
Ending the interview • Additional comments • Next steps • Thank you	Is there anything else about your working and breastfeeding experience that you think may help other breastfeeding working mothers, or yourself, in the future? I'll be analysing the information you and others have given me and will submit a report to the School of Graduate Studies, University of Cape Coast in three months. I'll be happy to share the report with you, if you are interested. Thank you for your time.