

**UNIVERSITY OF EDUCATION, WINNEBA**

**THE INFLUENCE OF FORMAL EMPLOYMENT ON BREASTFEEDING  
PATTERN OF MOTHERS IN MAMPONG ASHANTI**



**A thesis in the Department of Food And Nutrition Education,  
Faculty of Home Economics Education, Submitted to the School of  
Graduate Studies in partial fulfilment  
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Master of Philosophy  
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## DECLARATION

### Student's Declaration

I, Abigail Amoah Sarfo hereby declare that this thesis, with the exception of quotations and references contained in published works which have all been duly acknowledged, is entirely my own original work, and that it has not been submitted either in part or whole, for another degree elsewhere.

**Signature:** .....

**Date:** .....



### Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation was supervised by me in accordance with the guidelines for the supervision of project work laid down by the University of Education, Winneba.

**Supervisor's Name:** Dr. Theresa Alexandra Amu

**Signature:** .....

**Date:** .....

## **DEDICATION**

This thesis is dedicated to my parents, Mr. and Mrs. Amoah Sarfo for their love, prayers and financial assistance that helped me to pursue this postgraduate study, and my siblings; Vera, Jacob and Charles.



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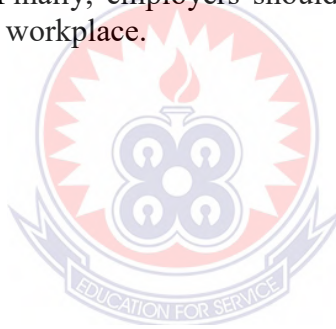
## LIST OF ABBREVIATION

WHO	-	World Health Organization
SDG	-	Sustainable Development Goals
AAP	-	American Academy of Pediatrics
BCC	-	Breastfeeding Committee for Canada
ILO	-	International Labour Organization
FGD	-	Focus Group Discussion
USDHHS	-	United States Department of Health and Human Services
GSS	-	Ghana Statistical Service
ACA	-	Affordable Care Act
IYCF	-	Infant and Young Child Feeding



## ABSTRACT

Adequate breastfeeding only with no food or medicinal supplement is all that is needed for the normal infant during the first six months of life. Decline in in breastfeeding practices is not only detrimental to the health of the infant but also to mother-child relationship with serious damages to the family and social integration. This study examined the influence of formal employment on mothers' breastfeeding from 0-6 months infants in Ashanti-Mampong. A sample of 120 working mothers' breastfeeding from 0-6 months were selected using purposive, convenience and stratified sampling techniques. Data were collected using questionnaire and focus group discussion. Direct quotations and thematic analysis were employed as main tools to analyse the qualitative data whereas descriptive statistical analysis such as frequencies, percentage distributions, tables and pie charts were used to analyse quantitative data and present findings. Results showed that work cultures were not favourable enough but it did not influence breastfeeding rates and duration among working mothers. The study also revealed that returning to work shortly after child birth and maternity leave does not deter mothers from exclusive breastfeeding. The study recommended that mothers should be encourage to continue with the type, rate and duration of breastfeeding due to it benefits. Also, maternity leave should be long enough to allow 6 months breastfeeding so as not to deter breastfeeding mothers from exclusive breastfeeding. Finally, employers should develop favourable policies that allow breastfeeding at the workplace.



## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Overview**

This chapter consists of the background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, hypothesis, significance, delimitation of the study, limitation of the study and organisation of the study.

#### **1.2 Background to the Study**

The Sustainable Development Goal (SDG) three (3) seeks to ensure healthy lives and promote well-being for all ages of life. (WHO, 2009). In Ghana, ensuring the health and well-being of infants via breastfeeding is of paramount importance, (WHO, 2009). Breastfeeding is recognized as the means of providing infants with the best source of nutrition during the first six months of life and it is also central to initiatives for ensuring child health as stated by the World Health Organization“s [WHO, 2009). However, there has been a general global decline in the practice of breastfeeding both in terms of prevalence and duration despite the fact that breastfeeding is known to be the best way to feed infants (Singh, 2010) and Ghana is no exemption to this phenomenon.

The possible reasons for the decline in breastfeeding as highlighted by Daba, Beyene, Garoma and Habtamu (2013) include: increased workload demands on mothers that make them to be separated from their babies for longer hours, decline in social support, and discomfort in breastfeeding in public. This suggests that maternal employment status is one of the predictors for breastfeeding behaviours and practices of nursing mothers. According to the World Health Organization (2009, p. 3), exclusive breastfeeding is defined as “when an infant receives only breast milk that is,

no other liquid or solid are given, not even water with the exception of oral rehydration solution or drops of vitamins, minerals or medicines or no other liquid or solid food being given to the infant”

A woman's life was once mostly passed in the home to look after home chores, and the outside world was male dominant. This trend is changing among current female generation as they adopt more independent lifestyle. Women are now playing totally new roles as they have been entering the workforce in a greater number with the pace picking up dramatically since the early 1940’s. The transition of women into the workforce is particularly pronounced for married women and mothers (Cohany & Sok, 2007). A number of studies have revealed that female participations worldwide have increased in labour markets for some decades (Brown *et al.*, 2014; Domenic & Karen, 2014; WHO, 2013).

In Ghana, most women cannot afford to live at home any longer because they serve as an important contributor to their family income due to the changing world and the economic impact. Thus, many women have engaged in income generating activities and or are actively working in the formal sectors. A woman who is working in the formal sector is expected to resume work and perform like any other employee. In addition, most workplaces do not have the support environment for breastfeeding. The situation is assumed to be worse in private compared with the governmental sector. This is because it is thought that in the private sector, the country’s maternity leave ordinance may not be strictly followed (Hirani & Karmaliani, 2013).

There are many issues that disrupt mother’s breastfeeding practices at work. Cited issues include lack of workplace breastfeeding facilities, lack of family support, mother’s inadequate knowledge about breastfeeding and feeling of embarrassment

(Krystal, 2012). Other reasons include lack of support, the need to return to full or part time paid employment and short maternity leave and inconvenience at work (Tuttle & Slavitt, 2009; Cardenas & Major, 2005; Johnson & Esposito, 2007). Also, working mothers often face inflexibility in the working hours, unable to find facility for childcare at or near the workplace, lack of privacy for breastfeeding, place to store breast milk (refrigerator), limited paid maternity leave and fear over job insecurity (Ogido, 2014).

Breastfeeding practices of a working mother can also be influenced by work shift, number of hours of work, work culture and whether the workplace environment is baby friendly. Mothers' employment significantly affects breastfeeding and increase early cessation of breastfeeding in favour of infant formulas (Fida, & Al-Aama, 2003). Thus, a mother's employment can be a barrier to practising exclusive breastfeeding especially if her maternity leave is short (Stuebe, *et al.*, 2007), Some mothers tend to introduce other foods at the age of three months due to the fact that their maternity leave is short and they have to go back to work.(Armstrong & Reilly, 2002). Short maternal leaves, (which are only about 12 weeks in the governmental sectors in Ghana), embarrassment when breastfeeding, even among the same gender, as well as a lack of special facilities outside the home, such as lactation rooms, lead to the early introduction of infant formula to feed babies during work hours (Amin *et al.*, 2011) and this prevents females employees from breastfeeding their babies until recommended period (Gupta *et al.*, 2013). Also, short maternity leaves and women's fear of job insecurity (Cattaneo & Quintero-Romero, 2006) are important factors that lead to early cessation of breastfeeding.

According to the International Labour Organization (ILO), the purpose of maternity leave is to safeguard the health of mother and child and every working woman is

entitled for at least 14-18 weeks paid maternity leave as indicated by the International Labour Organization [ILO] (2012).

After birth, a baby is totally *dependent* on mother's milk until six months as recommended by WHO (2009). For this reason, the global policy for infant and young child feeding (IYCF) by the WHO (2009) recommended that every workplace should have access to full support in order to sustain exclusive breastfeeding up to 6 months, followed by complementary food and breastfeeding until 2 years. This suggests that if the workplace is not baby friendly, then it will be difficult for a mother to continue with breastfeeding. Since family demands and work go parallel, these demands bring major influence on women's careers. Therefore, career building may be more challenging for women than for men (Domenico & Karen, 2014; Soomro, 2015). For this reason, WHO internal employee-based study recommended that the employer should provide, prenatal/ postpartum services, which include separate rooms for breastfeeding, and nursery for childcare (Amin *et al.*, 2011).

In brief, a mother's employment status can be a barrier to effective breastfeeding. This is because mother's employment status is an important factor associated with initiation, continuation or discontinuation and duration of breastfeeding as well as breastfeeding pattern. Breastfeeding at work is influenced by several social and cultural factors, affecting the frequency, duration and initiation of breastfeeding practices among mothers (Krystal, 2012). It is against this background that this study is undertaken to examine the influence of formal employment on breast feeding rates, duration and patterns by working mothers breastfeeding from 0-6 months in Ashanti Mampong.

### 1.3 Statement of the Problem

Adequate breastfeeding alone with no food or medicinal supplement is all that is needed for the normal infant during the first six months of life. It is well noted that high infant mortality and morbidity rate is one of the problems facing the developing countries and mal-nutrition has been found to be one of the major contributing factors to these (Eidelman & Schanler, 2012). Decline in breastfeeding practices is not only detrimental to the health of the infant but also an inadequate mother-child relationship with serious damages to the family and social integration (WHO, 2009). Though, nursing and breastfeeding a child is very demanding and involves a lot of time and attention, women cannot afford to live at home any longer because they serve as important contributors to the family income and this has become necessary for them to engage in work outside the home while they add home keeping activities. This dual role becomes conflicting for the woman (Cohany & Sok, 2007).

In Ghana, available literature indicates that little is known about whether engaging in formal work affects a nursing mother's breastfeeding pattern or not. Less is known about whether working outside the home actually affects a mother's decision on whether to breastfeed or not. Most workplaces in the town do not have the supportive environment for breastfeeding. This may probably result in discontinuation of breastfeeding among working mothers. Little research exists regarding workplace breastfeeding facilities. A qualitative study conducted in Karachi, Pakistan has reported workplace barriers, as one of the reasons that result in early cessation of breastfeeding among working mothers (Hirani & Karmaliani, 2013).



In a study sponsored by the Mother-Care International at Mampong-Ejura in 2014, it was discovered that in spite of the obvious adverse effect of not observing the principles governing breastfeeding of infant, some mothers continue to disregard sound advice from health professional due to their work. It is based on these reported cases of non-adherence to sound breastfeeding practices that this study becomes plausible. It is against this background that the researcher investigated how formal employment influence breastfeeding in terms of type, rate, duration and time of mothers' breastfeeding 0-6months infants in Ashanti Mampong.

#### **1.4 Purpose of the Study**

The purpose of the study was to examine the influence of formal employment on breast feeding patterns adopted by working mothers breastfeeding from 0-6 months in Ashanti Mampong.

#### **1.5 Objectives of the Study**

**Specifically, the study sought to:**

1. determine the pattern of breastfeeding adopted by working mothers breastfeeding infants from 0-6 months in Ashanti Mampong.
2. assess how work cultures influence breastfeeding pattern of working mothers breastfeeding infants from 0-6 months in Mampong.
3. assess the breastfeeding challenges working mothers face at their work places.
4. find out measures that can be put in place to improve the pattern of breastfeeding among working mothers in Mampong Ashanti.

#### **1.5 Research Questions**

The current study is guided by the following questions:

1. What is the breastfeeding pattern of working mothers breastfeeding infants from 0-6 months in Ashanti Mampong?
2. How do work cultures influence breastfeeding pattern of working mothers'' breastfeeding infants from 0-6 months in Mampong?
3. What challenges do mothers face in breastfeeding at their work places?
4. What measures can be put in place to improve the pattern of breastfeeding among working mothers in Mampong Ashanti?

### **1.6 Hypothesis**

**H<sub>02</sub>.** There is no significant influence of a mother's sector of work on her breastfeeding rate of infants from 0-6months.

**H<sub>1</sub>.** There is significant influence of a mother's sector of work and her breastfeeding rate of infants from 0-6months.

### **1.7 Significance of the Study**

The study is justified on the grounds that it will provide empirical evidence to guide theory, policy and practice as regards the scientific debate on engaging in formal work and breastfeeding. Theoretically, the findings of the study will fill the knowledge gap on the influence of engaging in formal employment on pattern of breastfeeding among working mothers. Also, the findings of this study will add up to existing literature in this area of study.

Policy wise, the findings from this study will inform the Ministry of Gender, Children and Social Protection, Ministry of Employment and Labour Relations and the Ministry of Health to formulate and implement policies that promote breastfeeding for working mothers at their work places.

To practitioners such as nutritionist, medical practitioners, educationists, managers and counsellors, the findings from this study will inform them on appropriate measures to put in place facilities to promote breastfeeding at the work place. More so, the result of the study will inform working mothers as to how to manage exclusive and partial breastfeeding effectively after resumption of work.

### **1.8 Delimitation of the Study**

The scope of the study was delimited to mothers who are still breastfeeding their babies (0-6 months) and are engaged in formal work in Ashanti Mampong of the Ashanti Region of Ghana.

Again, issues concerning breastfeeding practices and work are broad and varied, and therefore impossible to capture in a single study. Therefore, the study was limited to how formal work influence breastfeeding patterns of mothers who are breastfeeding infants from 0-6 months in the Mampong Ashanti.

### **1.9 Limitation of the Study**

Although nurses in the selected facilities were cooperative, some mothers were not willing to join the discussion after filling the questionnaire. Some who initially joined were in a hurry to leave when the discussion was on-going. Also, there were some mothers whose occupations cropped up in the Focus Group Discussion who could have given detailed information but they were not part of the discussion. It was realised that majority of the respondents were from a particular occupation or working class which was beyond the researcher's control. This limited the information the researcher got from the respondents and will not permit the findings of the study to be generalised. Mampong is made up of civil and public servants.

### **1.10 Organisation of the Study**

This study was organized in five chapters. Chapter One, the Introductory chapter, covered; Overview, Background to the study, Statement of the problem, Purpose and Objectives of the study, Research questions, Significance of the study, Delimitation, limitation and Organization of the study. Chapter Two reviewed related literature including the Conceptual definition of breastfeeding, breastfeeding duration and patterns, Breastfeeding and its benefits, breastfeeding patterns and practices, The influence of work cultures on breastfeeding pattern, Challenges of working mothers in breastfeeding at work places, Work flow, Workplace breastfeeding facilities, Breast milk substitute and workplace breastfeeding policies, Company policies/work culture, Part time versus full time employment, Length of maternity leave, Manager support/lack of support, Workplace physical environment, Workplace breastfeeding policies and support, empirical reviews, Measurement to improve breastfeeding, Breastfeeding practices of mothers at work place and Summary of the literature. Chapter Three also consist of the Methodology which presents the overview, Research design, Population, Sample size and sampling techniques, Instrumentation, Validity and reliability of the instruments, Data collection procedures, Data analysis, Ethical considerations. Chapter Four is results and discussions. Chapter Five covered the summary of findings, conclusion and recommendations based on the findings of the study. In this chapter, the researcher also made suggestions on relevant areas for further studies on the influence of formal employment breastfeeding patterns by working mothers in the Ashanti Mampong.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Overview

This chapter is a review of related studies and contributions on the influence of formal work on breastfeeding practices among working mothers. This chapter reviews literature under the following themes: Theoretical framework, the working mothers, childcare, conceptual definition of breastfeeding, breastfeeding, breastfeeding patterns and practices. The influence of work cultures on breastfeeding patterns, challenges of working mothers in breastfeeding at work places, measures to improve breastfeeding practices of mothers at work places, empirical reviews and summary of literature review.

#### 2.2 Theoretical Framework

The Theory of Planned Behavior [TPB] by Ajzen (1991) underpins this study. This theory postulates that attitudes, subjective norm, and perceived behavioral control influence intention to perform a behavior (Ajzen, 1991, 2002). According to this theory, the more someone intends to engage in a particular behavior, the more likely this person will undertake it (Hardeman, *et al.*, 2002). This theory is often used to explain behavior in general (Armitage & Conner, 2001). It was developed to predict and understand behavior. The intention to perform a behavior is a key variable in TPB. Intention is an indicator of how hard a person is willing to try, or how much effort they are willing to put into performing a behavior (Ajzen, 1991). The probability that a person will actually perform a behavior increases as the strength of intention increases (Fishbein & Ajzen, 1975). Accordingly, intention is the antecedent of actual behavior (Ajzen & Madden, 1986).

The strength of intention to perform or engage in a behavior such as exclusive breastfeeding is determined by three factors: attitude, subjective norm and perceived behavioral control. Intention is impacted by all of these factors and can be viewed as a person's motivation to perform the behavior.

Intention to breastfeed is influenced by a mother's attitude toward breastfeeding, whether she views it as the normal way to feed an infant, and how much control she feels she has over the breastfeeding experience. Attitude refers to a person's overall evaluation of the proposed behavior including perceptions of how good or bad the consequences are likely to be. The higher the intentions to perform a particular behavior are, the more likely the behavior will be performed (Armitage & Conner, 1999), implying that, the more one intends to exclusively breastfeed, the more likely it is that this person will breastfeed infant exclusively for six months. For instance, a nursing mother who has a positive attitude towards breastfeeding is more likely to make decisions to exclusively breastfeed.

The stronger a mother's intention to breastfeed exclusively the more likely she would actually breastfeed exclusively. Research shows that intention plays an important role in determining breastfeeding duration (Chezem, Friesen, & Boettcher, 2003; Dennis, 2002). Therefore, exclusive breastfeeding intention is related to the willingness to breastfeed. Despite the fact that intention seems to play a crucial role in breastfeeding behavior, little is known about the current state of measurement for intention to breastfeed. Intention to breastfeed has been used widely to predict breastfeeding initiation and duration in various studies (Colaizy, Saftlas, & Morriss, 2012; Lawton, et al., 2012; Azulay-Chertok, *et al.*, 2011; Tarrant, et al., 2010; Nommsen-Rivers, *et al.*, 2010).

Subjective norms refer to the belief that an important person or group of people will approve and support a particular behaviour. Subjective norms are determined by the perceived social pressure from others for an individual to behave in a certain manner and their motivation to comply with those people's views. This is the fix in which mothers breast feeding infants 0-6 months find themselves in a developing country like Ghana and Ashanti Mampong. The influence of subjective norms on forming intention has proven to be generally weaker in previous studies than the influence of attitude. Moreover, the study of Norris Krueger and his colleagues (Krueger, Reilly, & Carsrud, 2000) showed that subjective norms are not correlated with the intention of individuals to establish their own businesses; therefore, the authors call for further research and further improvement on the used measures. One possible reason for the inconsistencies in the significance of the subjective norms" variable stems from the fact that a part of information that this variable contains is already present in the desirability of undertaking a particular behaviour variable. One of the most frequently mentioned weak points of the theory of planned behaviour is precisely the very weak relationship between subjective norms and intentions. The author of the theory of planned behaviour, Ajzen (1991), explains this with the fact that intentions are heavily influenced by personal factors, such as attitudes and perceived behavioural control. Armitage and Conner (2001) criticize the narrow conceptualization of the subjective norms variable, which results in a weak correlation between normative beliefs and intentions. In this context, Ravis and Sheeran (2003) argue that the confirmed correlation between descriptive norms and intentions implies the possibility of the predictive power of this variable, which gives a strong motivation for further research in this area. Descriptive norms refer to real activities and behaviours that others are undertaking. In contrast, social norms refer to the perception of other people's

opinions on how the individual should behave. We consider both of these variables (descriptive and social norms) to be a part of the subjective norms factor.

Additionally, “significant others” are considered the actual influential people with whom an individual interacts. Most often they are members of a primary social group where face to face contact occurs (Longres, 2000). Intimate partners have been found to exert substantial influence on mothers’ infant feeding choices (Rempel & Rempel, 2004). Fjeld *et al.* (2008) in a study on the potentials and barriers of exclusive breastfeeding in Zambia, and Aryeetey and Goh (2013) in a study on exclusive breastfeeding duration in Ghana have both established the strong influence of family and friends on breastfeeding practices. Thus, a key significant other who supports and encourages exclusive breastfeeding may trigger a behavioral change.

Exclusive breastfeeding choices can also be framed in symbolic interaction terms. A woman who occupies a social status as a mother must decide on an infant feeding behaviour with special reference to societal expectations. Through this process of role taking and role performance, a sense of identity and meaning making are formed as the symbolic interaction continues. How mothers feed their babies in the first six months is therefore a behavior with important symbolic value for most people.

The intention of a nursing mother to exclusively breastfeed can also be determined by perceived behavioral control. Perceived behavioral control is the person’s (nursing mother) belief concerning how easy or difficult it will be to perform a specific behavior (exclusive breastfeeding). A person’s attitude, or favorable or unfavorable evaluation of a behavior is formed through past experiences (Ajzen & Madden, 1986). A mother’s breastfeeding perceived behavioral control may be influenced by past experience or by what she has heard and learned from other people. Attitudes toward



breastfeeding are formed by observing how other women feed their children, through personal experience with breastfeeding a child, and from information mothers receive about breastfeeding. Mothers who are aware of the World Health Organization (WHO) recommendation to breastfeed exclusively for the first six months of an infant's life are more likely to initiate breastfeeding and continue to breastfeed at 12 months when compared to mothers who are not aware of the recommendation (Wen, *et al.*, 2012).

Besides the three determinants of behavioral intention, there are non-modifiable and modifiable factors which influence breastfeeding initiation and duration. It has been established that maternal age, race, marital status, education, maternal employment and socioeconomic status impact breastfeeding duration (Meedya, Fahy & Kable, 2010; Thulier & Mercer, 2009). A better understanding of the modifiable factors that impact breastfeeding duration could improve breastfeeding rates.

### **2.3 The Concept of Breastfeeding**

Infant feeding practices include breastfeeding, the use of expressed breast milk, infant formula feeding, complementary feeding, the giving of water, fruit juices and other liquids. Breastfeeding is seen as the optimal source of nutrition for infants as pointed out by American Academy of Pediatrics [AAP] (2012), United States Department of Health and Human Services [USDHHS] (2011), United States Breastfeeding Committee [USBC] (2009), Government of Ghana [GOG], (2000), Ghana Becoming Breastfeeding Friendly Committee [GBBFC], (2017). American Academy of Family Physicians [AAFP] (2008) and the World Health Organisation [WHO] (2001). These organizations support exclusive breastfeeding for the first six months of an infant's life for multiple reasons. According to them, for infants to survive, grow and develop

properly they require the right proportion of nutrients. Breast milk is rich in nutrients and anti-bodies and contains the right quantities of fat, sugar, water and protein. These nutrients are major pre-requisites to the health and survival of the baby. When a child is exclusively breast fed, their immune system is strengthened, enabling it to withstand life-threatening illnesses like pneumonia and diarrhea amongst other infections. In fact, the WHO (2001) reports indicate that babies who are not breast fed for the first six months of life are 15 times more likely to die from pneumonia compared to newborns that are breast fed exclusively for six months after birth. They indicated that breastfeeding should be continued, along with the addition of solid foods when the infant is six months of age, for at least 12 months or as long as mutually desired by both the mother and child (AAP, 2012; AAPF, 2008; WHO, 2001).

Exclusive breastfeeding is explained as an infant receiving only breast milk, no other liquids or solids except for medications or vitamins (AAP, 2012). The WHO (2008) also defines exclusive breastfeeding as feeding an infant only breast milk and small amounts of the following fluids: oral rehydration solutions, vitamins, minerals and medicines. It is exclusive feeding of human milk for infants up to 6 months of age (including vitamins, minerals and medications), without the addition of water, breast milk substitutes, other liquids and/or solid foods (Millar & Maclean, 2005). This implies that in exclusive breastfeeding no other liquid or solid food is given to the infant. An infant would be considered as almost exclusively breastfed if he/she received breast milk and vitamins, minerals, water, juice or small amounts of ritualistic feedings along with breast milk. The category of full breastfeeding includes infants who are either exclusively or almost exclusively breastfed. Infants who are breastfed milk and non-human milk are classified as infants who were partially

breastfed. Infants who are classified as low partial breastfed receive the least amount of breast milk. Predominant breastfeeding means giving the infant ORS, vitamins, minerals, medicines, water, water-based drinks, and ritual fluids in addition to breast milk. Ritual fluids include any fluid given as part of a religious or cultural practice. The WHO definition does not discuss supplementation with formula for medical reasons such as weight loss or hypoglycemia. This means that the WHO definition includes medications, but it is unclear if formula could be considered a medication in these instances.

Exclusive breastfeeding is recommended as the most efficacious form of infant feeding for the first six months of life. The USBC and AAP state that breastfeeding is the physiologically normal form of infant and child feeding (AAP, 2012; Labbok & Taylor, 2008). The AAP policy statement on Breastfeeding and the Use of Human Milk (2012) has therefore established recommendations for exclusive breastfeeding for a baby's first six months of age, followed by the addition of complementary foods through the baby's first year, and continuation of breastfeeding for as long as desired by both mother and infant (Eidelman *et al.*, 2012). The United Nations Children's Fund (UNICEF, 2014) and WHO (2011) have also offered an even stronger recommendation that initiation of breastfeeding within the first hour after birth; exclusive breastfeeding for the first six months; and continued breastfeeding for two years or more, together with safe, nutritionally adequate, age appropriate, responsive complementary feeding starting in the sixth month.

The Canadian and International Health Authorities also recommend exclusive breastfeeding for all healthy term infants to 6 months, and should continue

breastfeeding along with the introduction of appropriate complementary foods to 2 years and beyond (Millar & Maclean, 2005).

Breastfeeding provides optimal nutrition tailored to individual infants' needs and has many health benefits for infants and mothers (Schulze & Carlisle, 2010; Chalmers & Royle, 2009). Exclusive breastfeeding of a baby for 6 months provides many significant health benefits to both child and mother (Imdad, Yakoob & Bhutta, 2011) which are discussed in the next session.

Exclusive breastfeeding gives the infant protection from several childhood infections, including diarrhea (Heining, 2011) and ear infections such as otitis media (USDHHS, 2011). Among infants who are exclusively formula-fed, there is a 100% increase in risk of ear infections compared to infants that are exclusively breastfed (USDHHS, 2011). The risk of rare but serious infections such as respiratory tract infections (Bachrach, Schwarz, & Bachrach, 2003; Oddy *et al.*, 2004) and gastrointestinal tract infections are also low for breastfed infants (USDHHS, 2011). The risk of hospitalization for lower tract infections of an infant who is exclusively breastfed for 4 months is reduced by 72% compared with those who were formula-fed, and infections of the nonspecific gastrointestinal tract among infants exclusively breastfed for any duration is reduced to 64% compared to infants who were never breastfed (USDHHS, 2011; Duijts *et al.*, 2010). Exclusive breastfeeding protects children from chronic diseases such as Type 2 diabetes and obesity (USDHHS, 2011). The incidence of Type 2 diabetes reduces by 40% in infants who are exclusively breastfed for at least 3 months, and adolescent and adult obesity by 15% and 30%, respectively compared to infants who receive formula (USDHHS, 2011).

Exclusive breastfeeding lowers the risk of being overweight, obese or developing diabetes in childhood and adulthood (Burke *et al.*, 2005). Breastfed infants also score higher on IQ tests (Julvez *et al.*, 2007) and have better teeth and jaw development (Wall, 2013). Obtaining the necessary micronutrients and macronutrients essential for optimal health and development may depend on the method of feeding to which the infant is exposed (Agostini *et al.*, 2008).

Breastfeeding positively impacts a child's development and growth (Imdad *et al.*, 2011; USDHHS, 2011). Exclusive breastfeeding for 6 months protects babies from sudden infant death syndrome (SIDS) and may reduce the risk of SIDS by 36% compared to the formula-fed babies (Chung *et al.*, 2007; Gartner *et al.*, 2005). Also, the incidence of certain allergic diseases such as atopic dermatitis, clinical asthma, and eczema in positive family history are reduced in the first 2 years of babies' life if they exclusively breastfed for 3 months, even in the low-risk population (Greer, Sicherer & Burks, 2008).

Infants who are breastfed have a lower risk of developing upper respiratory infections, otitis media, diarrheal illnesses, diabetes mellitus, allergies, asthma, and SIDS compared to infants who are fed formula (AAP, 2012; McNeil, Labbok & Abrahams, 2010). Any breastfeeding is beneficial but exclusive breastfeeding until six months, and a long duration of breastfeeding protects infants.

Breastfeeding provides multiple benefits to the mother, including the reduction of early uterine involution, postpartum blood loss, and the risk of ovarian cancer and breast cancer (Imdad *et al.*, 2011; USDHHS, 2011; WHO, 2009). Continued exclusive breastfeeding can prolong lactation amenorrhea, which increases the spacing of births (Gartner *et al.*, 2005). Further, an ongoing sense of closeness and increased bonding

with the newborn baby is an important psychological benefit of breastfeeding that may also help lower the risk of postpartum depression in the mother (USDHHS, 2011).

Breastfeeding provides a wide variety of benefits to infants, mothers and families. For infants, breastfeeding provides immunologic protection through maternal antibodies and is an important factor in positive health outcomes (AAP, 2012). For example, breastfeeding is associated with decreased rates of infectious diseases in infants including respiratory tract infections, diarrhea and bacterial meningitis, and with decreased incidence of chronic childhood conditions including diabetes (AAP, 2012).

For families, breastfeeding provides a readily available food source for the infant, a healthier infant is less stress for the family and as there are no wasteful by-products, breastfeeding is ecologically sound (Schulze & Carlisle, 2010; WHO, 2009). It is estimated that worldwide, over one million deaths among children under the age of five could be prevented by breastfeeding (Jones *et al.*, 2003).

The benefits of breastfeeding extend beyond the mother and baby and cause positive health and economic changes locally and globally (Murtagh & Moulton, 2011). Breastfeeding is not only beneficial for the child and the mother, but it is also important for general disease prevention and economic stability, a main concern for any health care system (Batterjee, 2010). Since breastfed babies contract fewer illnesses, parents of breastfed babies miss less work. Fewer days off work translate into increased productivity for employers (Murtagh & Moulton, 2011). Mothers who breastfeed are less likely to develop breast and ovarian cancer, compared to women who feed their babies formula (AAP, 2012).

Increased breastfeeding rates can help reduce the prevalence of multiple health conditions and illnesses, which in turn lowers health care costs overall (USDHHS, 2011; Batterjee, 2010). In addition to the more obvious economic benefits to families, for example, optimal breastfeeding can save more than \$1,200-\$1,500 (approximately GHC6000-GHC7500) in spending on infant formula for the first year (USDHHS, 2011)

### **2.2.1 Breastfeeding patterns and practices**

Adequate nutrition during infancy and early childhood is essential to ensure the growth, health, and development of children to their full potential (WHO, 2011). It has been recognized worldwide that breastfeeding is beneficial for both the mother and child, as breast milk is considered the best source of nutrition for an infant (Ku & Chow, 2010). However, several studies have shown that mothers find it difficult to meet personal goals and to adhere to the expert recommendations for continued and exclusive breastfeeding despite increased rate of initiation (Whalen & Cramton, 2010). Some of the major factors that affect exclusivity and duration of breastfeeding include breast problems such as sore nipples or mother's perceptions that she is producing inadequate milk (Nkala & Msuya, 2011; Cherop, Keverenge-Ettyang, & Mbagaya, 2009, Thurman & Allen, 2008); societal barriers such as employment and length of maternity leave (Thurman & Allen, 2008); inadequate breastfeeding knowledge (Cherop, Keverenge-Ettyang, & Mbagaya, 2009); lack of familial and societal support; lack of guidance and encouragement from health care professionals (Ku & Chow, 2010, Thurman & Allen, 2008). These factors in turn promote the early use of breast milk substitute and represent challenges for mothers which in turn may either directly or indirectly influence the feeding pattern.

Predictors of breastfeeding and weaning practices vary between and within countries. Urban or rural difference, age, breast problems, societal barriers, insufficient support from family, knowledge about good breastfeeding practices, mode of delivery, health system practices, and community beliefs have all been found to influence breastfeeding in different areas of developing countries (Nkala & Msuya 2011; Cherop, Keverenge-Ettyang & Mbagaya, 2009; Thurman & Allen, 2008).

Breastfeeding patterns and practices indicate a lack of clarity in the classification of breastfeeding practice in relation to the WHO feeding practices and definitions (AlJuaid *et al.*, 2014). Some studies report the duration and rate of breastfeeding without designating an appropriate feeding classification (for example, exclusive or partial) and the term “breastfed” is used to indicate that the infant received any breast milk and may have also received other liquids such as non-human milk and formula. Only the term “exclusive breastfed” can indicate that infants received only human milk without any other liquids or formula (WHO, 2008).

The rates of breastfeeding initiation, exclusive breastfeeding, and continued breastfeeding up to 24 months are not as high as they should be to promote optimal health outcomes for infants and mothers (El Mouzan, *et al.*, 2009). This is because work outside the home is associated with several barriers to breastfeeding, which include inflexibility in work hours and limited breaks at work, as well as inadequate or total lack of venues where the mother can express breast milk at most workplaces (Cattaneo & Quintero-Romero, 2006).

Intention, self-efficacy and support have been measured in a number of studies to predict breastfeeding duration. Meedya, Fahy and Kable (2010) reported that breastfeeding intention, breastfeeding self-efficacy, and social support are three



modifiable factors associated with breastfeeding duration to six months. Thulier and Mercer (2009) also reported that breastfeeding intention, breastfeeding self-efficacy and support influence breastfeeding duration.

Both non-modifiable and modifiable factors influence breastfeeding initiation and duration. It has been well established that maternal age, race, marital status, education and socioeconomic status impact breastfeeding duration (Meedya, *et al.*, 2010; Thulier & Mercer, 2009); however, these factors are either not modifiable or difficult to modify. A better understanding of the modifiable factors that impact breastfeeding duration could improve breastfeeding rates both nationally and locally. A study by Meedya, *et al.*, 2010) reported that breastfeeding intention, breastfeeding self-efficacy, and social support were three modifiable factors associated with breastfeeding duration to six months. Thulier and Mercer (2009) also published a literature review outlining the modifiable variables that impact breastfeeding duration. They reported that breastfeeding intention, breastfeeding self-efficacy and support influence breastfeeding duration.

Intention, self-efficacy, and support have been measured in a number of studies to predict breastfeeding duration. Intention predicted breastfeeding duration in multiple studies (Bai, *et al.*, 2010; Bosnjak, *et al.*, 2009; Forster, *et al.*, 2006; Kronborg & Vaeth, 2004; O'Brien, *et al.*, 2008; Semenic, *et al.*, 2008; Whaley, Meehan, *et al.*, 2002; Wilhelm, *et al.*, 2008). Breastfeeding self-efficacy also predicted breastfeeding duration in a number of studies (Bailey, *et al.*, 2008; Kronborg & Vaeth, 2004; McQueen, *et al.* 2011; O'Brien, *et al.*, 2008; Pollard & Guill, 2009; Semenic, *et al.*, 2008; Wilhelm, *et al.*, 2008). The ability of support to predict duration is more complex because it can be presented in many forms. Family and friends can be instrumental in helping mothers breastfeed exclusively (Bosnjak, *et al.*, 2009;

Cernadas, *et al.*, 2003). Support can be given by health care providers through education and practical advice. It appears that women may need to receive support throughout pregnancy and the postpartum period for support to positively influence breastfeeding duration (Gill, Reifsnider & Lucke, 2007; Hannula, Kaunonen, & Tarkka, 2008; Demirtas, 2012). Ongoing face-to-face support by a peer, lactation consultant or health care provider is another effective strategy for increasing breastfeeding duration (Balkam, Cadwell, & Fein, 2011; Gill, Reifsnider, & Lucke, 2007; Renfrew, *et al.*, 2012). The ability to pump at work also increases breastfeeding duration (Whaley *et al.*, 2002).

Comfort with formula feeding was the strongest predictor of intention when compared to comfort with breastfeeding and breastfeeding self-efficacy. Mothers with lower levels of comfort with formula feeding were approximately 30 times more likely to intend to initiate breastfeeding and to breastfeed for longer periods of time when compared to mothers who had higher levels of comfort with formula feeding (Nommsen-Rivers *et al.*, 2010).

Increasing rates of breastfeeding initiation, exclusivity, and duration are recognized and promoted in Canada and globally as an important population health initiative to increase positive health outcomes for mothers and infants (Health Canada [HC], 2013). Increased breastfeeding rates can help reduce the prevalence of multiple health conditions and illnesses, which in turn lower healthcare costs overall (USDHS, 2011; Batterjee, 2010). However, rates of breastfeeding often decline due to aggressive marketing of infant formula and the erroneous presumption that bottle-feeding is healthier and a more convenient option for infant feeding (Guttman & Zimmerman, 2000).

### **2.3 The influence of Work Cultures on Breastfeeding Rates and Duration**

It is well-documented that barriers to successful breastfeeding include embarrassment, lack of family, peer or other social support (Jones *et al.*, 2015), and lack of timely assistance when problems arise (Kaunonen, Hannula & Tarkka, 2012). Health care providers' knowledge of and coaching mothers about breastfeeding is not consistent across all sectors of the health care system, and access to lactation support can be limited (Busch, Logan, & Wilkinson, 2014). Economic pressure to return to work in both dual and single parent households, limited family leave time, and requirements of welfare-to-work have emerged as strong barriers to both initiation and duration of breastfeeding (Mills, 2009). The most recent data indicate that the lowest breastfeeding rates are among low-income women regardless of other demographic characteristics (Jiang, Foster, & Gibson-Davis, 2010). The underlying context of low-income and low socioeconomic status is emerging as the key barriers to breastfeeding. In their study Teich, Barnett and Bonuck (2014) at Bronx, New York found out that about 25%–50% of mothers stopped breastfeeding in the first month, and more than 50% stopped during the first 2 weeks. Most also ceased breastfeeding at some point in the first month after giving birth (Amin *et al.*, 2011; El Mouzan *et al.*, 2009). These statistics suggest that mothers in different parts of the world face early barriers that generally deter them from continuing to breastfeed even after successful initiation.

Besides a number of factors such as maternal age, residence, employment status, education, income level, number of children, and delivery type influence exclusive breastfeeding behavior (Amin *et al.*, 2011; Al-Hreashy *et al.*, 2008). Seven key barriers to exclusive breastfeeding have also been identified. These include; lack of knowledge, lactation problems, poor family and social support, social norms, embarrassment, employment and child care, and health services (USDHHS, 2011).

Tuttle and Slavit (2009) have also identified many barriers to successful breastfeeding including lack of support, aggressive marketing by infant formula companies, negative societal attitudes, short maternity leave, and inconvenience at work. This study focuses on maternal employment. There is an overwhelming empirical evidence to support maternal employment with poor breastfeeding outcomes (AAP, 2012). This study focusses on maternal employment as a factor inhibiting the rate, duration and pattern of breastfeeding.

The classical model of the 1960s reveal that the woman's life is mostly passed in the home to look after home chores and the outside world is male. This trend is discarded among the new female generation, as they adopt more independent life style. Women are playing totally new roles (Blöss & Frickey, 1994). The working mother is stretched between family and employment. Hence, if the workplace is not mother friendly, then it is hard for a mother to continue with breastfeeding. Often some working women experience feelings of selfishness or guilt if they place their job interests first. Since family demands and work go parallel, these demands bring major influence on women's careers. It is established that most women after giving birth are physiologically capable to breastfeed. Many working mothers mistakenly believe that frequent lactation is required to sustain milk supply, but once breastfeeding is established the frequency of lactation decreases and prolactin level also reduces. Thus, if the lactation continues, it is surely possible for mothers to breastfeed twice or thrice a day and continue lactation for many months (Lawrence & Lawrence, 2011).

Returning to work after a child is born is one of the reasons that often deters mothers from exclusive breastfeeding in favor of using infant formula (Al-Binali, 2012; Amin *et al.*, 2011). In addition, short maternal leaves and women's fear of job insecurity are important factors that lead to early cessation of breastfeeding (Cattaneo & Quintero-

Romero, 2006). Exclusive breastfeeding rates at 6 months of age declined from 33% in 1987 to 0.8% in 2004 (El Mouzan *et al.*, 2009).

Breastfeeding at work is influenced by several social and cultural factors. These factors tend to influence the frequency, duration and initiation of breastfeeding practices among mothers (Haroon, *et al.*, 2013; Krystal, 2012). Economic factors also compel mothers at New York (Haroon *et al.*, 2013; Krystal, 2012). Socioeconomic status, race, ethnicity, employer's attitude and other factors have been found to affect the working mother's choice whether or not to breastfeed, and how long she breastfeeds her child (Haroon *et al.*, 2013; Krystal, 2012). The cultural support for breastfeeding differs, and still some societies identify the mother as either work oriented or family oriented (mother or worker) and to combine breastfeeding with work seems quite struggling for working mothers (Haroon *et al.*, 2013).

Most female employees maintain both social roles (mother and worker) simultaneously and reportedly negotiate the boundaries on daily basis (Haroon *et al.*, 2013). Cultural variations in breastfeeding can bring visible change on the effect of the usual demographic variables on breastfeeding prevalence (Simmie, 2006). A study on the attitudes of working mothers with regard to breastfeeding and formula feeding identified that the negative perception about breastfeeding in public or workplace settings compels women to feel embarrassed while practicing breastfeeding because of sexual associations related to breasts (Krystal, 2012).

The cultural environment of Western and African societies mainly seems not to promote breastfeeding in public places. A study shows that the majority of people believe that women should not be allowed to breastfeed in public at United Kingdom (Boyer, 2011). Thus, the humiliation associated with breastfeeding in public and

workplaces can lead mothers to look for an alternative to breastfeeding, even at the cost of their child's health.

An important factor associated with the initiation and duration of breastfeeding is employment status, shift, and number of hours of work. Women working full-time prior to their pregnancy were much less likely to breastfeed, but women working part-time were not significantly different from women without employment (Fein & Roe, 1998). In addition, women who worked full-time at 3 months postpartum breastfed for 8.6 fewer weeks than women who were not working or who were working part-time (<4 hours a day). Saudi mothers' employment significantly affects the prevalence of breastfeeding and the increased early cessation of breastfeeding in favor of formula (Amin *et al.*, 2011).

Returning to work after a child is born is one of the reasons that often deter women from exclusive breastfeeding in favor of using infant formula (Al-Binali, 2012; Amin *et al.*, 2011; El Mouzan *et al.*, 2009; Al-Hreashy *et al.*, 2008). Work outside the home is associated with the several barriers to breastfeeding which include inflexibility in work hours and limited breaks at work as well as inadequate or total lack of venues where the mother can express breast milk at most workplaces (Cattaneo & Quintero-Romero, 2006; Guttman & Zimmerman, 2000).

Studies on factors that influence exclusive breastfeeding practices in different settings show that the level of maternal education, social class, mother's comfort in breastfeeding, father's occupation, religion, and hospital-related (obstetric and pediatric) factors inform mother's decision to initiate and continue exclusive breastfeeding (Venancio & Monteiro, 2006). Other factors, such as the attitudes of mothers regarding breastfeeding, mother-infant bonding, mode of delivery, and family

support are important in initiation and sustaining breastfeeding (Beck & Watson, 2008).

Married women breastfeed their infants more often than single women (Arora *et al.*, 2000). Overall, housewives with three or more children and an older maternal age are more likely to initiate exclusive breastfeeding (Amin *et al.*, 2011; Al-Hreashy *et al.*, 2008). Mothers who are living in a rural residence, have a low income and education level, and experienced normal deliveries are also more likely to initiate exclusive breastfeeding (Amin *et al.*, 2011; Shawky & Abalkhail, 2003).

Insufficient milk supply and mother's illness are two main reasons cited for early cessation of breastfeeding (Teich, Barnett & Bonuck, 2014; Al-Binali, 2012; Amin *et al.*, 2011). Although physiological factors may affect a mother's breast milk supply, especially the introduction of formula feeding in the early neonatal stage (El Mouzan *et al.*, 2009), it is not the main cause of perceived insufficient milk.

Although social support from the family, especially from the birth father, is crucial for successful breastfeeding, only a few studies have reported fathers' support to mothers to initiate or continue breastfeeding. Mothers are more likely to initiate and remain exclusive to breastfeeding when their husbands encourage them to do so (Ogbeide *et al.*, 2004). On the other hand, no association was found between a father's attitude toward breastfeeding and breastfeeding initiation (Al-Ayed & Qureshi, 1998). In addition, inadequate family support significantly influenced mothers who wished to breastfeed their baby to continue to breastfeed (Al-Madani, Vydellingum & Lawrence, 2010).

Additional barriers to breastfeeding include becoming pregnant (Al-Jassir, El-Bashir & Moizuddin, 2004), the use of oral contraceptives (Amin *et al.*, 2011), the baby's

dislike of the mother's milk (Al-Jassir *et al.*, 2003), the infant's illness, and the mother having to work outside the home (El Mouzan *et al.*, 2009).

Similarly, unmarried women with less than a high school education choose breastfeeding at much lower rates than married women or women with a higher level of education. De La Mora, *et al.*, (1999) in a study on infant feeding practices in the United States found the attitudes of married women concerning breastfeeding more positive than the attitudes of single mothers.

#### **2.4 Challenges of Working Mothers in Breastfeeding at Work Places**

A plethora of workplace factors can present challenge to a successful exclusive breastfeeding practices of nursing mothers. These challenges include but not limited to workflow, workplace breastfeeding policies and support, company policies or work culture part-time versus full-time employment, length of maternity leave, manager support and/or lack of support, co-worker support and/or lack of support, physical environment, workplace breastfeeding facilities, breast milk substitute and workplace breastfeeding policies.

The decision of the women to continue with breastfeeding on return to work mainly comes from two sources, family and non-family. The family support predominantly comes from spouse or parents and then from other family members. The non-family support drive chiefly from employer at work, socio-cultural system and mother attribute which may be her knowledge, education, commitment, and other personal factors that influence her decision for breastfeeding. Most of the researchers have studied each factor separately (Desirae & Jones, 2014; Ogido, 2014; Hameed, *et al.*, 2014; Bai, Daniel & Marie, 2014; Allen, Brook *et al.*, 2014; Chang, Jennifer & Suzanne 2014; United States Department of Labour Statistics, 2013). A woman's



return to work has been cited as a contributor to the early termination of breastfeeding (WHO, 2015; 2014; 2013).

This is because many mothers who return to work give up breastfeeding partially or completely because they do not have appropriate time, or place to breastfeed or express and store breast milk (Rivera, *et al.*, 2014; Bai, Daniel & Marie, 2014; Allen, *et al.*, 2014; United States Department of Labour Statistics, 2013). There are many issues that disrupt mother's breastfeeding plan at work. Commonly cited issues are lack of workplace breastfeeding facilities, lack of family support, mothers' inadequate knowledge about breastfeeding and feeling of embarrassment (Brown *et al.*, 2014; Woods, Chesser & Wipperman, 2013).

Also, aspects of the work environment that contribute to a mother's overall perception of workplace breastfeeding support include company policies/work culture, manager support/lack of support, co-worker support/lack of support, workflow, and the physical environment of the breastfeeding space (Greene & Olson, 2008). Working mothers often face inflexibility in the working hours, unable to find facility for childcare at or near the workplace, lack privacy for breastfeeding, place to store breast milk (refrigerator), limited paid maternity leave and fear over job insecurity (Brown *et al.*, 2014; Ogido, 2014; Lawrence & Lawrence, 2011).

#### **2.4.1 Workflow**

The time that it takes to either pump milk or directly breastfeed an infant during the course of work day is a consideration that influences mothers' perceptions of workplace breastfeeding support. A mother must determine how she will incorporate this activity into her day, and must be proficient at pumping as it becomes a necessary job skill. At three months and six months postpartum, mothers reported pumping milk

twice a day, for a total combined time of less than one hour (Slusser, *et al.*, 2004). Studies that include the specific influence of the time and frequency needed to breastfeed or pump breastmilk at work are limited.

#### **2.4.2 Workplace breastfeeding facilities**

Within two to three months after delivery, working mothers are expected to resume work and perform like normal employees. However, most workplaces do not have the supportive environment for breastfeeding, and this will probably result in discontinuation of breastfeeding (WHO, 2015; 2013). Mothers need a safe, clean and private place in or near their workplace to be able to continue breastfeeding.

A supporting environment at work, such as paid maternity leave, part time work engagements, facilities for expressing and storing breast milk and breastfeeding breaks can help (Brown *et al.*, 2014; WHO, 2014; Woods, Chesser & Wipperman, 2013). With regard to working mothers who want to express and store breast milk in refrigerator, it is quite possible to do so for several hours to days depending on the refrigerator temperature, for example, can store up to 48 hours at 4 °C and for several days at -20°C to -70 °C. Storing mother's milk in refrigerator has been reported to decrease bacterial growth (Lawrence & Lawrence, 2011). A recent WHO internal employee's-based study recommended that the employer should provide, prenatal/postpartum services, which include separate rooms for breastfeeding, nursery for childcare, provide flexible time and lighter job to working mothers (Iellamo, 2015).

#### **2.4.3 Breast milk substitute and workplace breastfeeding policies**

Mothers employed outside the home are likely to initiate breastfeeding as compared to stay-at-home mothers. However, mothers who are not employed are more likely to

breastfeed for six months as compared to mothers who worked full time (Ryan, Zhou, & Arensberg, 2006).

#### **2.4.4 Company policies/work culture**

Employers are not always certain about their role in breastfeeding support or about what actions they could take to support and promote breastfeeding. Some employers are supportive of employees breastfeeding when they have prior experience with employees who breastfeed, know of other businesses who employ breastfeeding women, or both. A study by Brown, Poag and Kasprzycki (2001) with human resource professionals from 18 businesses to gather information about employers' knowledge, attitudes, and practices in providing breastfeeding support for their employees. The authors stated that further investigation should be conducted to design effective employer lactation support guidelines so that breastfeeding or pumping while at work does not interfere with job demands, and that job demands do not interfere with breastfeeding or pumping at work (Brown *et al.*, 2001).

Support of mothers who combine employment and breastfeeding has slowly increased over the past few decades. Several studies have investigated this phenomenon in certain populations (Dunn, Zavela, Cline & Cost, 2004). Services and benefits that help to create a breastfeeding-friendly workplace are provided in some larger businesses. Some of these benefits and services include maternity leave for three months or more, flextime, job sharing, or part-time employment options, refrigerator for breast milk storage, breaks for pumping or breastfeeding an infant, on-site daycare, electric breast pumps, breastfeeding counselor or lactation consultant on staff, and specific written policies addressing workplace breastfeeding support (Dunn *et al.*, 2004).

A study by Stratton and Henry (2011) found that employers are unsure about the extent of their role in providing workplace breastfeeding support. Not having policies that support breastfeeding employees to breastfeed or express milk in their workplace are significantly associated with decrease in breastfeeding duration and increase early formula initiation. The difficulties are associated with working and the role that work setting factors play in determining the choice of whether or not to breastfeed. This same information is easily found in developed countries because many studies promote breastfeeding among working mothers and have led to new legislation or improvements in the existing law to support and even protect breastfeeding in the workplace (Imdad, Yakoob & Bhutta, 2011).

Mother perception of workplace support is influenced by employer behaviour. Employer may influence the workplace environment of breastfeeding support by abiding or ignoring organization policies, discouraging breastfeeding employees, handling or informally supporting or disowning problems encountered by female workers (Ogido, 2014).

#### **2.4.5 Part-time versus full-time employment**

Full-time employment and school enrollment are associated with decreased breastfeeding duration as a result of environmental barriers at both work and school (Flacking, Nyqvist & Ewald, 2007). Part-time employment is one factor that has been shown to contribute to breastfeeding success. Mothers working part-time, defined as less than 35 hours per week or a maximum of seven hours a day, had no decrease in breastfeeding initiation or duration compared to nonworking mothers (Aurthur *et al.*, 2003). A strong correlation between part-time employment and increased breastfeeding initiation and duration was observed, even when mothers' actual hours

worked and baby's age when she returned to work were controlled for (Mandal *et al.*, 2010). The same correlation between full-time employment and shorter duration of breastfeeding was found in a study of 146 physician mothers by Aurthur *et al.* (2003).

#### **2.4.6 Length of maternity leave**

The length of maternity leave before returning to work is another factor that has been shown to impact the success of combining breastfeeding with employment. Short maternal leaves, which are only about 10 weeks in the governmental sectors, and embarrassment when breastfeeding, even around the same gender, as well as a lack of special facilities outside the home, such as lactation rooms, lead to the early introduction of formula so a foreign nanny can feed the baby during work hours (Amin *et al.*, 2011). The correlation between longer maternity leave and longer breastfeeding duration was observed in large studies by Kimbro (2006). The mother's employment can be a barrier to practicing exclusive breastfeeding especially if maternity leave is short (Stuebe *et al.*, 2007; for example, in Ghana where it is 90 days long. Due to a short maternity leave, some mothers tend to introduce other foods at the age of three months because they have to go back to work (Armstrong & Reilly, 2002).

Evidence from The United Arab Emirates also indicates that housewives are more likely to exclusively breastfeed than those who go to work (WHO, 2014). Working mothers in Ghana get 12 weeks maternity leave in the public sector. A study in Brazil reported that most women, who return to work or study after delivery, usually discontinue lactation, if they are not provided with the due support by an organization (Ogido, 2014). Some studies indicated that mothers who have easy access to their

babies during the workday, have longer breastfeeding duration than other mothers (Ogido, 2014; Hameed *et al.*, 2014).

Further support of longer maternity leave to promote breastfeeding initiation and duration comes from data from 2348 prenatally employed mothers in the Infant Feeding Practices Study II, collected between 2005 and 2007 at U. S. A (Mandal, Roe, & Fein, 2010; Mirkovic *et al.*, 2014a; Ogbuanu, *et al.*, 2011b). These studies found that a mother who was returning to work prior to 12 weeks (or three months) was less likely to initiate breastfeeding than a mother who was planning to return to work after 12 weeks (or three months): 64.6% compared with 74.2%, respectively. Inadequate maternity leave prevents female employees from breastfeeding their baby until the recommended period (Gupta *et al.*, 2013).

According to the International Labour Organization (ILO), the purpose of maternity leave is to safeguard the health of mother and child and every working woman is entitled for at least 14-18 months paid maternity leave (International Labour Organization, 2012). Additionally, the proportion of women who were continuing to breastfeed beyond six months was greatest among the women who had not yet returned to work at the nine-month mark (46.7%), and lowest among the women who returned to work after less than 12 weeks (or three months) (30.1%) (Ogbuano *et al.*, 2011b).

The relationship between length of maternity leave and duration of breastfeeding was quantified in a publication by Roe *et al.* (1999). Among the group of 712 mothers nationwide who initiated breastfeeding in the Infant Feeding Practices Survey, each week of maternity leave increased breastfeeding duration by almost one-half week (Roe *et al.*, 1999). More studies have shown that longer maternity leaves and part-

time employment contribute significantly to sustaining breastfeeding (Ogbuanu et al., 2011). Further, the digital age provides even more options for mothers such as telecommuting, working from home, and flexible hours (Feldman-Winter, 2013).

#### **2.4.7 Manager support/lack of support**

A manager who is supportive of combining breastfeeding and employment has been shown to be an essential factor for employees to meet their breastfeeding goals. The attitudes of managers have been found to directly influence female employees' perceptions of workplace breastfeeding support. Chow, Fulmer, and Olson, 2011 conducted five focus groups with a total of 25 managers in the state of Michigan to assess attitudes of managers toward supporting breastfeeding. The authors found that managers were aware of some, but not all, of the benefits of breastfeeding, and that they were able to identify some, but not all, barriers and facilitators to combining breastfeeding and employment. Results from this qualitative study were used to develop an instrument to measure managers' attitudes toward workplace breastfeeding support (Chow, Wolfe & Olson, 2012).

#### **2.4.8 Workplace physical environment**

The physical environment available for a mother to nurse her baby or pump milk has been found to be a crucial component of workplace breastfeeding support. In studies where mothers did not have breastfeeding or pumping stations at work, they resorted to pumping in the restroom. This approach has been associated with premature weaning (Rojjanasrirat, 2004; Stevens & Janke, 2003). Conversely, access to a physical environment conducive to breastfeeding or pumping has been shown to improve rates of breastfeeding among working mothers.

A study by Tsai (2013) reinforced the role that a breastfeeding-friendly workplace can play in the complex decision-making process that a working mother must employ when she decides to continue breastfeeding after returning to work. Two of the factors identified as important in combining employment and breastfeeding for the first six months are taking advantage of pumping breaks, and encouragement by colleagues or supervisors to take pumping breaks.

For continuing to breastfeed past six months, a higher education level, lower work load, dedicated lactation room, taking pumping breaks, and encouragement by colleagues or supervisors to take pumping breaks correlate with the mother's intention to continue to breastfeed for more than six months after returning to work (Tsai, 2013). Although creating a private space for mothers to pump breast milk or breastfeed can be a challenge for employers, many employers have reported that they would be willing to provide such spaces.

#### **2.4.9 Workplace breastfeeding policies and support**

The workplace breastfeeding friendly policies influence exclusive breastfeeding, duration and continuation of breastfeeding practices for optimum period (WHO, 2015; WHO, 2014; 2009; Weber *et al.*, 2011). The absence of policies may reflect the absence of workplace support for breastfeeding. Many developed countries are still devoid of precise policies for breastfeeding promotion at the workplaces. Developing countries are extremely lacking in several areas (Atabay *et al.*, 2015; Vera, 2015; Rivera, Marta, Escobar & Teresita, 2014; Allen *et al.*, 2014; WHO, 2009). Numerous studies indicated large gap between written and implemented policies (Atabay *et al.*, 2015; Hirani & Karmaliani, 2013; Weber *et al.*, 2011; Amin *et al.*, 2011; WHO, 2009).



Vera (2015) found that majority of employed women discontinue breastfeeding after returning to work and the common reason cited was the lack of proper workplace breastfeeding policy. Additionally, the employer considers breastfeeding at work is mother's personal issue, therefore, the lack of facilities and time resulted in increased use of formula milk.

In a breastfeeding supportive workplace, policy for provision of separate lactation rooms, flexible time to breastfeed and ample break for use of a breast pump to express breast milk proved crucial in encouraging mothers to resume breastfeeding after returning to work (Atabay *et al.*, 2015; WHO, 2009). It is perceived that the absence of workplace breastfeeding supportive policies may reflect the absence of work site support for breastfeeding (WHO, 2009).

The global policy for infant and young child feeding (IYCF) recommended that every workplace should have access to full support in order to sustain exclusive breastfeeding up to 6 months, followed by complementary food and breastfeeding until 2 years. Additionally, governments should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation in accordance with international labour laws (WHO & UNICEF, 2009). The implementation of mother friendly workplace initiatives in the light of recommended policies will motivate mother's plan to sustain breastfeeding practices at the workplace for the optimum period of time.

According to the Federal Bureau of Statistics, female participation among labour work force is increasing progressively (Government of Pakistan, 2006). However, little or no attention is paid by decision makers for workplace breastfeeding support programs. Subsequently, working women's struggle to continue their breastfeeding

practices at work (Hirani & Karmaliani, 2013). A lack of policy for workplace breastfeeding facilities, predispose mothers to be at the mercy of an employer who have little understanding or interest to support breastfeeding practices (Hirani & Karmaliani, 2013; Shoaib, Khan & Khan, 2010).

## 2.5 Empirical Reviews

In a cross-sectional, national survey of 3608 children and their mothers carried out in 1991 by Al-Shehri *et al.* (1995), 93% of infants in Saudi Arabia were breastfed for one month, but the number being breastfed continued to drop to 89% at the age of 2 months, 84% at 3 months, 78% at 6 months, and 45% by the end of first year. In another cross-sectional national study with 4872 mothers, which was conducted by Al Jassir *et al.* (2006) between 2002 and 2003, 23.9% of mothers breastfed their infants for the first 3 months after birth. In the following year, another national study conducted by El Mouzan *et al.* (2009) between 2004 and 2005 interviewed mothers of children less than 3 years, and 5339 children were included; exclusive breastfeeding declined from 70.8% at birth to 16.4% at 4 months of age.

In a survey carried out in 1998 in Riyadh City with 347 mothers, 32.4% of infants were exclusively breast fed at 3 months, and that number declined at age 6 months to 22.1% and to mixed feeding of 29.5% (Al-Ayed & Qureshi, 1998). Only 0.8% of the infants were exclusively breastfed for the first 4 to 6 months of their lives. In a survey conducted in 10 primary healthcare centers located in west, north, east, central, and south areas of Riyadh with 21,507 infants, during period between 1999 – 2002, 34.3% of infants were breastfed for more than 6 months (Al-Jassir, El-Bashir & Moizuddin, 2004).

In a survey intended to evaluate early initiation and exclusive breastfeeding among mothers in the Eastern region in 2008, particularly in Al Hassa, the exclusive breastfeeding rate at birth was 66.5% and increased to 76.1% at the age of one month. This figure dropped to 32.9% at 2 months and 12.2% at 6 months (Amin *et al.*, 2011). In a previous study, conducted in 2011 on mothers working in the teaching sector in Abha City (that is, the Southern region), 31% of the mothers exclusively breastfed their infants at birth and only 8.3% of these mothers continued exclusive breastfeeding to 6 months (Al-Binali, 2012).

A study conducted by NUK in 2015, revealed that 71% of 1432 mothers reported that they had encountered problems after successfully initiating breastfeeding. The author explained that good support mechanisms and clear evidenced-based information is needed in order for women to succeed and deal with problems as they arise. An analysis of 1031 Korean mothers revealed breastfeeding initiation rates were similar regardless of a mother's employment, continuation rates were decreased at 1, 6, and 12 months in employed mothers compared to non-working mothers. (Kang, *et al.*, 2015). A longitudinal study conducted on women from Australia revealed that mothers of babies aged 4 to 12 months who worked outside of the home for as little as fifteen hours per week had lower breastfeeding rates than their non-working counterparts (Smith *et al.*, 2013).

A study of 5385 Mexican mothers aged 12 to 49 years old with babies under age discovered that maternal employment negatively impacted breastfeeding duration (Rivera-Pasquel, Escobar-Zaragoza & Gonzalez, 2015). Payne and Nicholls (2010) conducted a Foucauldian discourse analysis of interviews with 20 women who continued to breastfeed after returning to work. The results revealed the women were faced with the choice of either being a good mother or a good worker.

A study conducted in Mexico to assess the association between working mothers and breastfeeding using secondary data source from three National Health Survey (1999, 2006, 2012), the findings of study suggest that maternal full-time employment was negatively associated with breastfeeding among mothers with a child under age one year.

Ali Hirani and Karmaliani (2012) performed a review of global literature, which revealed that in order to promote breastfeeding practices among employed mothers, one of the most powerful interventions for successful outcomes included the education of mothers concerning the management of breastfeeding with employment. Increasing employers' awareness of the necessary physical accommodations and creating mother friendly workplace policies were also included.

Burks (2014) in a descriptive research reported on about working woman's perception of breastfeeding support at workplace at Burlington, U. S. A. The data showed that the mothers had satisfactory perceptions of breastfeeding support in their workplace. The difference is most likely due to the presence of lactation programs and breastfeeding policies in particular setting.

Data from the Early Childhood Longitudinal Study-Birth Cohort (2011) at Nigeria was utilized to investigate the effect of postpartum employment and occupational type on breastfeeding initiation and duration. Of the group of mothers who were currently working when their babies were nine months old ( $n = 4,500$ ), the mothers employed part-time had higher rates of breastfeeding initiation (71.9%) and a greater proportion still breastfeeding at six months (42.5%) than mothers employed full-time [66.8% and 27.5%] (Ogbuanu *et al.*, 2011a). Data from studies exploring maternal work status

and breastfeeding initiation and duration have continued to strongly support the connection between part-time employment and successful breastfeeding (Mirkovic, *et al.*, 2014b; Odum, *et al.*, 2013; Thulier & Mercer, 2009).

A study published in 2014 included 2,348 prenatally employed women in the Infant Feeding Practices Survey II (2005-2007). The study found that a mother's plans for part-time or full-time work status after her maternity leave had a direct impact on her plans to breastfeed. Mothers who are planning to work full-time are significantly less likely to initiate breastfeeding (55.0%) than mothers planning to work part-time [66.3%] in United States (Mirkovic *et al.*, 2014).

A study by Seijts (2004) which investigated coworker perceptions of outcome fairness of breastfeeding accommodation in the workplace, participants responded to the vignettes using Likert-type scale responses to indicate how much they agreed or disagreed with statements such as: "The breastfeeding policy in this company would encourage me to accept a position if I were offered one" or "The policy toward employees who want to breastfeed at work implemented by this company is fair" (Seijts, 2004, p. 6) in the United States. The organizations in the vignettes that provided breastfeeding accommodations were rated as fairer overall than the organizations that were described as less accommodating. Breastfeeding accommodations in the workplace may be more of a "need-based" concern, but there is no evidence that employees resented breastfeeding accommodation in the workplace (Seijts, 2004).

## 2.6 Measures to Improve Breastfeeding Practices of Mothers at Work Places

The inability to support breastfeeding among working mothers in working outside the home appears to have a major negative influence on the duration of breastfeeding, especially among young mothers who are working women. Breastfeeding choice is significantly affected by structural factors including employment (McKinley & Hyde, 2005). Hence, there is a need to put in measures to improve on it. It has been advocated that expressing breast milk in the workplace will help working mothers maintain optimal milk supply after they return to work and leave their child for long period, through efficient emptying of the breasts and increase prolactin levels, which lead to the greatest milk volume possible (Meek, 2001).

Women with longer breastfeeding durations can utilize various coping strategies in dealing with challenges they face in breastfeeding at workplaces. Seeking lactation counseling, for instance, is a common thread for success. Riorden and Wambach (2010) stated in their book *Breastfeeding and Human Lactation*, the breastfeeding bible, “returning to work does not affect breastfeeding initiation but does adversely affect breastfeeding duration”. As a result, they espoused the importance of healthcare workers in promoting breastfeeding, “every healthcare encounter should be used to inform and support the mother who plans or is currently combining breastfeeding and employment”.

In an effort to overcome barriers to successful breastfeeding among working mothers, many initiatives have been implemented on national, state, and local levels. The Patient Protection and Affordable Care Act (Affordable Care Act/ACA) addresses the barriers that exist in the workplace. The 2010 update of the ACA requires that employers provide reasonable break time for an employee to express breast milk for

her nursing child. Especially, for one year after the child's birth each time such employee has need to express the milk. Employers are also required to provide a place, other than a bathroom, that is shielded from view and free from intrusion from co-workers and the public, which may be used by an employee to express breast milk" (United States Department of Labor, 2013).

When developing a support program, employers must consider the number of women who will need support and the resources available; this will help to determine whether the employer should utilize "adequate," "expanded," or "comprehensive" support strategies for breastfeeding in the workplace (Shealy *et al.*, 2005). The available studies indicate that the workplaces are lacking minimum measures to support breastfeeding practices such as, flexible time for breastfeeding, separate room for breastfeeding, separate refrigerator for storing breast milk, breast pump, child care and adequate maternity leave (Hirani & Karmaliani, 2013).

## **2.7 Summary of Literature Review**

This chapter reviews the literature. Essentially, the review was underpinned by the Theory of Planned Behavior [TPB] by Ajzen (1991). The literature review also embodied the conceptual definition of breastfeeding, the influence of work cultures on breastfeeding rates, duration, and patterns, challenges of working mothers in breastfeeding at work places, and measures to improve on breastfeeding at workplaces.

It emerged from the review that the intention to engage in exclusive breastfeeding is determined by three factors: attitude, subjective norm and perceived behavioral control. The review indicates that the rates of breastfeeding initiation, exclusive breastfeeding, and continued breastfeeding are influenced by intention, self-efficacy

and support. The support service towards exclusive breastfeeding emanate from family, friends, workmates, healthcare providers, lactation counsellors.

It unfolds from the review that breastfeeding at work is influenced by physical problems, social and cultural factors. They influence the frequency, duration and initiation of breastfeeding practices among nursing mothers. Other important factors associated with the initiation and duration of breastfeeding is employment status, shift, and number of hours of work. Maternal age, residence, employment status, father's occupation, income level, the level of maternal education, social class, religion number of children, delivery type, mother's comfort in breastfeeding, and hospital-related (obstetric and pediatric) influence exclusive breastfeeding behavior. On the other hand, lack of knowledge, lactation problems, poor family and social support, social norms, embarrassment, health services, marketing of infant formula, negative societal attitudes, short maternity leave, and inconvenience at work are some of the reasons mothers discontinue breastfeeding. All of these factors inform mother's decision to initiate, continue and/or discontinue exclusive breastfeeding.

The current review points to challenges related to successful exclusive breastfeeding at workplaces. They include challenges associated with workflow, workplace breastfeeding policies and support, company policies or work culture part-time versus full-time employment, length of maternity leave, manager support and/or lack of support, co-worker support and/or lack of support, physical environment, workplace breastfeeding facilities, breast milk substitute and workplace breastfeeding policies.

This suggests that a number of measures should be put in place to mitigate these challenges. The review identifies some measures as follows: expressing breast milk in the workplace, seeking lactation counseling, promotion of exclusive breastfeeding by



healthcare workers, provision of a reasonable break time for an employee to express breast, employers to provide a place, provision of flexible time for breastfeeding, provision of separate room for breastfeeding, provision of separate refrigerator for storing breast milk, provision of breast pump, provision of child care facilities, and adequate maternity leave.

The review of previous empirical studies points to the fact that limited studies have been carried out to investigate the influence of maternal employment on breastfeeding. The empirical review also shows differences in lactation facilities and policies at work among developed and developing countries. This is mostly due to the difference in the level of awareness, education, economic status, availability and implementation of breastfeeding policies at workplaces, gender equality and women empowerment.

It also unfolds from the empirical review that the use of cross-sectional study in previous studies has a limitation to measure causal association between maternal employment and breastfeeding duration. Moreover, the review did not identify factors which compel or repeal employed mothers to continue or discontinue breastfeeding and its relation with the socio-demographic variables. Also, previous empirical studies provided limited information on employment detail, and mothers distance from the home to give better understanding of the relation of various factors affect breastfeeding practices at workplaces.

## CHAPTER THREE

### METHODOLOGY

#### 3.0 Overview

This section discusses the various methods and procedures that were employed in conducting the study. The following strands were discussed: research design, setting of the study, population, sample and sampling techniques, data collection procedure, instruments for data collection, data analysis and ethical considerations.

#### 3.1 Research Design

The explanatory sequential mixed method research design was used for this study. The explanatory sequential mixed method is a research design where a researcher conducts quantitative research first then qualitative research. The researcher conducts the qualitative research to provide further explanation for the quantitative research results (Barnes, 2019; Creswell, 2014). Tashakkori and Teddlie (2003) identify three different approaches to mixed methodology; these being concurrent, sequential and conversion. This study undertakes the sequential approach where the quantitative phase (numbers) is followed by the qualitative phase (personal experience of respondents) (Creswell, 2013); where the qualitative findings are used to contextualise the quantitative data (Creswell, *et al.*, 2003). Qualitative data can also enhance and enrich the findings (Taylor & Trumbull, 2005; Mason, 2006) and help generate new knowledge (Stange, 2006). The rationale for adopting this approach is that the quantitative data and their subsequent analysis provide a general understanding of the research problem. The qualitative data and their analysis refine and explain those statistical results by exploring participants' view in more depth (Creswell, 2003).

Besides, this method was employed because the researcher gave out questionnaire which was followed by focus group discussion which gave a further explanation to the questionnaire to know how mothers work cultures influence their breastfeeding practices. The sequential explanatory design is characterized by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data (Creswell *et al.*, 2003) in two consecutive phases within one study.

In relation to this study, the first section sought to collect quantitative data of respondents which consisted of their demographic information on age, level of education, shift status of nursing mothers, number of working hours, working sectors and educational level, number of times they breastfeed, the duration they breastfeed. The qualitative content in the second phase builds on the first phase (quantitative) and the two phases are connected in the intermediate stage in the study.

The qualitative (text) data sought information on how mothers work cultures influence their breastfeeding patterns. This was achieved with the use of focus group discussion. Also, this phase sought for information on the challenges facing nursing mothers at their work places and the measures that could be put in place to offset the challenges. This was to help explain or elaborate on, the quantitative results obtained in the first phase. In a mixed method study the researcher can give the same priority, weight or status to the quantitative and qualitative aspects (equal weight designs), or alternatively may give greater weight to one of them (different weight designs). This is due to the order in which the researcher collects quantitative and qualitative data. The options are either collecting information at the same time (simultaneous, concurrent or parallel designs) or obtaining data at different points (sequential or two-stage designs). The way in which these two factors are combined will determine the resulting design. (Creswell, 2003, 2005; Creswell *et al.*, 2003), and this design has

found application in both social and behavioral science research (Klassen & Burnaby, 1993).

Some advantages of mixed method design include straightforwardness and opportunities for the exploration of the quantitative results in more detail (Creswell, 2003, 2005). This design can be especially useful when unexpected results arise from a quantitative study (Morse, 1991). The limitations of this design are lengthy time and feasibility of resources to collect and analyse both types of data which makes it is not easy to implement (Creswell, 2003; 2005).

### **3.2 Paradigm and Philosophical Perspectives of the Study**

The pragmatist philosophy underpins this study. This philosophical approach used a combination of the ideologies of both the interpretivists and the positivists otherwise referred to as maxim of pragmatism. Pragmatism as a research paradigm finds its philosophical foundation in the historical contributions of the philosophy of pragmatism (Maxcy, 2003) and, as such, embraces plurality of methods. As a research paradigm, pragmatism is based on the proposition that researchers should use the philosophical and/or methodological approach that works best for the particular research problem that is being investigated (Tashakkori & Teddlie, 1998). It is often associated with mixed-methods or multiple-methods (Biesta, 2010; Creswell & Clark, 2011; Johnson and Onwuegbuzie, 2004; Maxcy, 2003; Morgan, 2014a; Tashakkori & Teddlie, 2009), where the focus is on the consequences of research and on the research questions rather than on the methods. It may employ both formal or informal rhetoric (Creswell & Clark, 2011).

Pragmatism as a research paradigm refuses to get involved in the contentious metaphysical concepts such as truth and reality. Instead, it accepts that there can be

single or multiple realities that are open to empirical inquiry (Creswell & Clark, 2011). Pragmatist scholars have offered their particular opinion that there is an objective reality that exists apart from human experience. However, this reality is grounded in the environment and can only be encountered through human experience (Goles & Hirschheim, 2000; Morgan, 2014a; Tashakkori & Teddlie, 2008). A major underpinning of pragmatist philosophy is that knowledge and reality are based on beliefs and habits that are socially constructed (Yefimov, 2004). Pragmatists generally agree that all knowledge in this world is socially constructed, but some versions of those social constructions match individuals' experiences more than others (Morgan, 2014a). This study used both quantitative and qualitative making it a mixed method approach. The nature of the research problem, the purpose, research objectives, research questions and hypotheses, as well as the research methodology inform the reason for choosing this philosophical approach. The study sought to know how the formal employment mothers engaged in influence their breastfeeding practices and so, giving out only question was not enough and so, the discussion followed to explain their responses in the questionnaire.

Pragmatism arises out of actions, situations and consequences rather than antecedent conditions (Creswell, 2009). In the context of this study, the maxim of pragmatism is merely the combination of the ideas of interpretivism-positivism philosophical approach that requires proper and accurate statistical methodology that aims at reaching meaningful results with value in real life not just focusing on the statistical significance of the difference between numbers (Westfall, Mold & Fagnan, 2007). The study could not have used either qualitative or quantitative approach since the researcher wanted to investigate into how mothers work culture influences their breastfeeding pattern, challenges and measures of improving these challenges. In

other words, pragmatism is concerned with what works when finding solutions to a problem, instead of strict adherence to positions as with positivism and interpretivism. Consequently, the emphasis is not solely on methods, but also on the research problem and employs all approaches available to understand the problem.

Pragmatism, therefore, underpins the mixed methods approach to research and uses pluralistic approaches in acquiring knowledge. Johnson and Onwuegbuzie (2004) argue that mixed methods research uses a method and philosophy that attempt to fit together the insights provided by quantitative and qualitative research into a workable solution. This view is shared by Creswell and Plano-Clark (2011), Tashakkori and Teddlie (2003), and Creswell (2003). The pragmatic paradigm implies that the overall approach to research is that of mixing data collection procedures and analysis within the research process. It draws on many ideas including using “what works,” using diverse approaches and valuing both objective and subjective knowledge (Hanson, *et al.*, 2005).

The philosophical perspective of pragmatic approach is relevant for this study because the pragmatic approach ensures methodological congruence in the investigation of the research questions and hypotheses, as well as the choice of methods for data collection and analysis. In using this approach, emphasis is not solely laid on methods (qualitative and quantitative approach), but also on the research problem and employs all approaches available to understand the problem.

### **3.3 Setting of the Study or study Area**

The study was conducted in Ashanti-Mampong which is the administrative capital of Mampong Municipal which was formally known as the Sekyere West District located in the northeastern part of Kumasi in the Ashanti Region of Ghana. The Municipality

shares boundaries with Atebubu District at the North, the Sekyere East District at the East, Afigya Sekyere at the South and Ejura Sekyere Odumasi at the West. The town has a total land area of 122 square kilometers. According to the 2010 Population and Housing Census (PHC), the town has a population of 42,037 inhabitants comprising 18,075 (43%) of males and 23,961 (57%) females with 42 settlements (Ghana Statistical Service: GSS (2010)). Majority of the inhabitants are engaged in agricultural and forestry activities and petty trading. 36 % of the population are in the formal sector according to the 2010 Population and Housing Census.

The Mampong municipal area has a number of health facilities including one (1) Hospital, six (6) Health Centres, one (1) Maternity Home, five (5) MCH/FP Points, and four (4) Clinics. The Municipality also has seven doctors, four (4) medical Assistants, one dentist assistant, two pharmacists, 8 dispensary Technicians/Assistants, 56 Nurses, 16 public Health Nurses as well as 27 trained Traditional Birth Attendants. The proportion of Doctor: population ratio is 1: 3,071 whilst that of nurses is 1: 1,467. This gives a picture of a rising load of work on the staff. The municipality has few of its rural communities occupying hard to reach areas. This makes healthcare to these communities, especially during the rainy season, not a herculean task. The municipality is also lauded as one of the best in the region to extend healthcare to the doorstep of the people through its home visitation programme. The municipal hospital has been awarded a baby friendly status and has further benefitted from several international donor support like the USAID and Linkages. According to the Mampong Health Statistics, as at the time of data collection, 480 nursing mothers who were attending the various weighing centers in the town. However, the municipality is noted with early introduction of young babies

to additional foods and liquids which causes higher rates of diarrhea illness and mortality (Roberts, 2017)

Ashanti Mampong is a fast-growing vibrant town with heterogeneous working population with different life styles. It is a busy town which accommodates rural-urban and urban-urban migrants who troop in there to take up income generating activities of various kinds. This makes it necessary to investigate how nursing mothers cope with work and exclusive breastfeeding

This area was chosen because of its accessibility and familiarity to the researcher. The locality was, therefore, suitable in terms of time and finances. Thus, Ashanti Mampong was chosen and purposively sampled for reasons of convenience and easy accessibility of respondents.

### **3.4 Population for the Study**

The population of the study comprised all nursing mothers in Ashanti Mampong. Four weighing centres out of six were purposively selected for the study. These four weighing centres according to the Director in charge of Child Health were the most patronised ones in the town. This is due to the fact that these centres are found at vantage and convenient places of the town namely, “Akyremade”, New town, Copa and New- Damang. Also, these centres are located at more opened and developed areas of the town. Thirty respondents were selected from each weighing centre summing 120.

### **3.5 Sample and Sampling Procedure**

Researchers are never able to study an entire population; they depend on selected constituents to infer meanings into the larger population. These constituents are called samples (Babbie, 2010; Elbers, *et al.*, 2008) assert that a sample refers to any group or



a sub-group of the total population and Flick (2014) adds that a sample is the representatives respondents selected from a research population. Flick (2014) indicates that the sample size depends on the accuracy needed, population size, population heterogeneity and resources available. For quality research, 25% of the population is required for a fair representation and accuracy of results (Cohen & Manion, 2000). The sample size for this study consisted of 120 which represents 25% of the population of working mothers who are nursing babies aged 0-6 months. The choice of 25% of the target population is based on Dornyei's assertion that between 1% and 10% of a study population gives an adequate sampling fraction (Dornyei, 2007).

Sampling involves taking a portion of a population, investigating the proportion and generalizing the findings to the large population. It is the procedure a researcher uses to select people, places, or things to study (Flick, 2014). The quality of a sample determines the quality of the research findings in large measure. The researcher used eight weighing days in all to collect the data.

With the first weighing centre (Akyremade), 12 and 18 respondents were used for the study respectively on the first two days. At the second centre (New – Town), the researcher got 16 respondents willing to part take in the study on the first day while 14 did on the second visit. With the third centre (Copa) the researcher had 19 and 11 respondents respectively but the fourth centre (New-Damang) was, 15 respondents for each day during the hours the researcher was at the weighing centres.

Multistage sampling procedure, which combines both probability and non- probability sampling techniques, was used to sample 120 working mothers. This sampling procedure relies on sampling at different stages in the process (Ozoh *et al.*, 2020). For

this study, purposive sampling, convenience sampling and stratified sampling techniques were used.

Purposive sampling technique was used to select working mothers breastfeeding infants from 0-6 months. This was because they were those the study sought to investigate. Purposive sampling is a non-probability sampling technique used to select participants in a study. It is done by considering a particular characteristic of the population and the objective of the study (Crossman, 2017). This type of sampling can be useful in situations when you need to reach a target sample quickly and where sampling for proportionality is not the main concern (Grevetter & Forzano, 2006). Purposive sampling technique was employed because the researcher realize it can provide her with the justification to make generalisations from the sample that is being studied, whether such generalisations are theoretical, analytic or logical in nature. Also, purposive sampling was used to select four weighing centers out of six. This was because the selected weighing centers were those that were highly patronized since they were found at vantage points or center of the town.

Convenience sampling was the next sampling technique employed by the researcher. This technique was considered because only working mothers who were available and were willing to partake or provide information for the study were used.

Convenience sampling is a non-probability sampling technique that involves the sample being drawn from that part of the population that is close to hand, easily accessible and proximity to the researcher (Saunders, Lewis & Thornhill, 2012). This procedure relies on data collection from the characters that are conveniently available to participate in the study. Though convenience sampling is considered a weak form of sampling because of the inability to generalize findings to a larger population, data

collection can be facilitated in short duration of time (Gravetter & Forzano, 2006). Convenience sampling was used to select working mothers (120) who were readily available as at the time the researcher was at the weighing centers.

The researcher used eight weighing days in all to collect the data. With the first weighing centre (Akyremade), 12 and 18 respondents were used for the study respectively on the first two days. At the second centre (New – Town), the researcher got 16 respondents willing to part take in the study on the first day while 14 did on the second visit. With the third centre (Copa) the researcher had 19 and 11 respondents respectively but the fourth centre (New-Damang) was, 15 respondents for each day during the hours the researcher was at the weighing center.

After respondents were conveniently selected, they were stratified into either government or private sector workers for a focus group discussion. This means mothers who did not fall under any of these categories; that is the self-employed were not part of the study. Stratified sampling involves dividing the population into homogenous groups, each group containing subjects with similar characteristic.

### **3.6 Instruments for Data Collection**

A research instrument is a device used to collect data to answer the stated research questions. Questionnaire and interview schedule were used as tools for data collection.

#### **3.6.1 Questionnaire**

Sekyere (2012) explains questionnaire as a set of written questions answered by a large number of people that is used to provide information. A questionnaire contains a series of questions, statements or items that are presented and the respondent is asked to answer, respond to or comment on them in a way she or he thinks best. There is a

clear structure, sequence and focus, but the format is open-ended, enabling the respondent to respond in her or his own terms (Cohen, Manion & Morrison, 2000 as cited in Kusi, 2012). In relation to this study, the questionnaire contained forty-eight (48) closed-ended questions or items with four likert scale ranging from strongly agreed to strongly disagreed for respondents to choose option they think best.

The first section, the questionnaire sought for demographic characteristic which included age, educational level, sector of work and working hours of respondents. The second section sought information on patterns of breastfeeding of respondents. The third section sought for respondents work cultures and how they influence breastfeeding pattern. Finally, the fourth section sought information on the challenges lactating mothers face at work places.

According to Sarantakos (2005), close-ended items require less effort to respond to, easy to score and promote objectivity on the part of the respondent. However, they are limited to only the areas indicated in the questionnaires, and do not give room for self-expression. Notwithstanding the lapse of close-ended items in restricting the responses of respondents, its adoption ensures effective editing and analysis of data. The close-ended items are also aimed at ensuring uniformity in the responses and thereby preventing subjectivity of any kind.

Questionnaire was used for this study because it is relatively quick and easy to create. With questionnaire, interpretation and analysis of data is easy as data entry and tabulation for nearly all surveys can be easily done with many computer software packages (Neuman, 2000). Again, questionnaires are familiar to many people, nearly everyone has had some experience completing one and they do not make people apprehensive (Tuckman, 1992) Above all, questionnaire is easy to standardize

therefore reducing the amount of bias in the results as there is uniform question presentation. Kerlinger (2000) observes that questionnaire is widely used for data collection in educational research because it is developed to answer research questions. It is very effective for securing factual information about practices and conditions of which the respondents are presumed to be knowledgeable of. It is also used for inquiring into the opinions and attitudes of subjects (Neuman, 2000).

One advantage of the questionnaire is a high response rate particularly when the questionnaire design is good and appropriate follow-up mechanisms are used. Secondly, if properly understood and implemented, the technique simplifies the data analysis stage. Finally, the questionnaire has a higher degree of transparency or accountability than the interview technique. However, questionnaire has some weaknesses. It is expensive both financially and in time, especially if the respondents are scattered over a large area. Respondents may also not provide appropriate answers to the questions since the method normally uses structured questions. Thus, questionnaire may yield superfluous information than an in-depth interview. Another disadvantage is that, respondents may have the tendency to look ahead, skip around or compare answers with those of their colleagues and friends when completing the questionnaire (Gay & Salaman, 1992)

Questionnaire was used in the study because it is relatively quick and easy to use. It also helped to collect a lot of information within relatively short time. It was used to collect demographic data of respondents.

### **3.6.2 Interview schedule**

Focus group discussion (FGD) is one of the most popular qualitative research methods (Temkin, 2017). According to Gerritsen (2011) „FGD is a structured

discussion used to obtain in-depth information (qualitative data-insight) from a group of people about a particular topic“ [p. 4]. The aim of Focus Group Discussion is to study a topic in-depth and intensively. It is a discussion guided by the moderator according to the prepared interview guidelines (Temkin, 2017). Focus Group Discussion is a group discussion of eight (8) to twelve (12) participants with guidance from a facilitator, which discusses a certain topic among participants (Glynn, Shanahan & Duggan, 2015). A focus group is a group interview; focus group interactions provides opportunities to share and make comparisons about participants' experiences, ideas and views as well as provide opportunities to talk about something which is effective in supplying information (Duggan, 2013). They are successful when participants are able to talk to each other about the topic (Minardi, 2017). However, the facilitator’s expertise is very important to stimulate and support discussion but cannot act as an expert on the topic [Krueger & Casey, 2009]. Focus Group Discussion is to gain a deeper understanding of a topic, such as motivation, behaviour, feeling, decision-making strategy, or opinion of a particular person on an issue or topic (Gerritsen, 2011). „Focus Group Discussion techniques can be used to develop relevant research hypotheses by exploring in greater depth the problem to be investigated and its possible causes“ as explained by (Duggan, 2013)

According to Glynn, Shanahan, and Duggan (2015), the process of Focus Group Discussion involves identification of goals or objectives, questions and people, selection of time, place or environment, conducting research, evaluating findings or data and preparation of the report. Generally, Focus Group Discussion in practice starts with scheduling of groups, creation of plans, invitation of participants, moderation of activities and report writing (Glynn, Shanahan & Duggan, 2015).

The use of multiple data collection techniques and tools ensured triangulation of data as noted by Punch (2005), and cross-checking data from multiple sources to search for irregularities in the research data (Berg, 2007). When data are triangulated, that is, more than one data collecting method is used, gaps in collected data are filled and false or misleading information can be detected (Greeff, 2002). The focus group discussion was used so that in-depth knowledge of the study could be obtained. The Focus Group Discussion helped mothers to explain how their work cultures influenced their breastfeeding pattern, their challenges and how they could be addressed.

### **3.7 Validity and Reliability of Instruments**

The questionnaire was given to colleague MPhil Home Economics students for peer review. Their comments and suggestions were considered for review of the questions. A particular question which asked whether respondents were provided individual fridges by their employers to keep expressed milk was removed since that was not possible. The item content validity of the questionnaire was ensured by the research supervisor who scrutinized the items for their suitability before pilot study. A particular item; “my breaks are not enough (frequency) and long to pump breast milk” was asked to be separated since the words “enough” and “long” meant two different things. Internal validity check was conducted by ensuring agreements between different parts of the questions. The researcher ensured concurrent validity through multiple sources of the data collection instruments; that is questionnaire and interview schedule to find answers to the research questions and to yield convergent validity. Validity, according to Kankam and Weiller (2010), refers to the “degree to which an instrument accurately measures what it intended to measure”. Validity denotes the extent to which the research instrument serves the use for which it is intended (Seidu,

2006). Yin (2003) discusses the test involved in validating any data in any social science research. He groups them under construct validity, internal validity, external validity and reliability. Content item, face validity and concurrent validity were established.

Joppe (2000, p. 68) defines reliability as “the degree to which outcomes are reliable in a period of time and if the outcomes in a research can be replicated using the same method, then the research instrument is reliable”. To ensure reliability of the questionnaire, a pilot study was carried out on 31 working mothers who breastfed infants aged 0-6 months old at Kofiase weighing centre in the Ashanti Mampong Municipality two weeks before the actual study was carried out in Mampong town. A pilot study is the most effective strategy to minimize problems in the actual conduct of a study. These were done to refine and shape the contents of the instruments to make them more valid and reliable for the study. Unanswered items were looked at again. Some were reframed by replacing ambiguous word with simple ones since respondents did not understand. Reliability analysis was done using Cronbach’s alpha reliability model. A reliability coefficient ( $r$ ) of equal to or more than 0.70 threshold is acceptable as a measure of reliability as noted by Tavakol, Mohagheghi and Dennick (2008) who have stated that the acceptable values of alpha, ranges from 0.70 to 0.95. This range of reliability coefficient values are deemed as an acceptable measure of reliability because 0.70 is the threshold value of acceptability (Dörnyei & Taguchi, 2010). Guba (1981) proposed “trustworthiness” as a surrogate measure for validity and reliability in naturalistic inquiries. The reliability value obtained was 0.83.



### **3.8 Data Collection Procedure**

Questionnaire were administered to respondents and the researcher explained to them what was required of them. The researcher went through their responses in the questionnaire to see if all items were answered before they were collected and expressed her gratitude to the respondents for their participation in the study.

Respondents who had already gathered in groups either government or private sectors were joined by the researcher to discuss how their work culture influences their breastfeeding practices in terms of type, rate, duration and time. The challenges mothers faced at work places and how they wished those challenges were tackled was also discussed. The researcher and some nurses served as facilitators for the discussion. Series of questions were asked for respondents to bring their suggestions. Based on some responses, follow up questions were asked. Some rules such as been called before talking helped to established orderliness for a successful discussion. Also, a conducive atmosphere was created where respondents freely expressed themselves without fear, intimidation and been ridiculed or laughed at when there was a mistake. The responses of the respondents were analysed thematically. That is, the central points which run through the discussion were noted down by the researcher.

Focus group discussion (FGD) is one of the most popular qualitative research methods (Temkin, 2017). According to Gerritsen (2011) „FGD is a structured discussion used to obtain in-depth information (qualitative data-insight) from a group of people about a particular topic“ [p. 4]. The aim of FGD is to study a topic in-depth and intensively. It is a discussion guided by the moderator according to the prepared interview guidelines (Temkin, 2017). FGD is a group discussion of eight (8) to twelve (12) participants with guidance from a facilitator, which discusses a certain topic among participants (Glynn, Shanahan & Duggan, 2015).

### **3.9 Data Analysis and Presentation**

Yin (2003) states that before interpretation takes place, data should be analysed statistically and presented. Responses from respondents on the questionnaire were tallied in order to get the number of respondents who answered each set of items. The quantitative data were fed into the Statistical Product for Service Solutions (SPSS) version 21 software and they were analyzed. Frequency count and percentage distributions of responses were generated according to each research question raised, and this were presented in tables. The researcher also used the SPSS to run Pearson product moment correlation to find significant influence of a mother's formal sector of work on breastfeeding rate. This was done at a significance level of  $p \leq .05$  using a confidence interval (C. I.) of 95%.

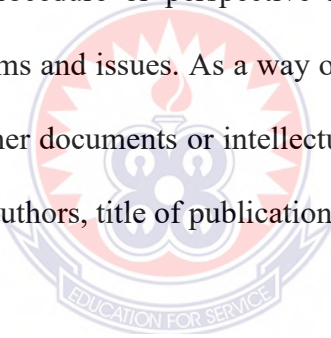
To find the degree of influence of the predictor on the dependent variable, correlation coefficients ( $r$ ) was calculated for the relationship between dependent variable (work sector) and the independent variables (breastfeeding rate).

The qualitative data which sought to provide further information and understanding to the quantitative data was analyzed thematically. Thus, the main or central ideas were picked and used in the analyses of the study.

### **3.10 Ethical Considerations**

For ethical reasons, a letter of introduction from the Head of Department of Home Economics of the University of Education, Winneba was obtained to introduce the researcher during data collection. The administration of the questionnaire was done after consent was sought from the Director of Health Services of Ashanti Mampong Municipality. In conducting a study, Creswell (2005) advises researchers to seek and obtain permission from the authorities in charge of the site of the study because it

involves a prolonged and extensive data collection. The researcher assured respondents of the confidentiality of whatever information they provided. In order to ensure this, researcher did not ask for respondents' names on the questionnaire and during the focus group discussion. Also, weighing cards of respondents were not taken. In doing this, the description of the study, the purpose and the possible benefits were communicated to participants. Participants were permitted to freely or voluntarily withdraw or leave at any time if they deem it fit. Respondents' consent was sought before discussion was recorded. Lastly, no photograph of respondents was taken. Resnik (2009) defines ethics in research as the discipline that studies standards of conduct, such as philosophy, theology, law, psychology or sociology. In other words, it is a method, procedure or perspective for deciding how to act and for analyzing complex problems and issues. As a way of preventing plagiarism, all ideas, writings, drawings and other documents or intellectual property of other authors were referenced indicating the authors, title of publications, year and publishers.



## **CHAPTER FOUR**

### **ANALYSIS AND RESULTS**

#### **4.1 Overview**

This chapter presents the analysis and results of the findings. The purpose of the study was to examine the influence of formal employment on breast feeding pattern by working mothers breastfeeding from 0-6 months in Ashanti Mampong. Two hypotheses were postulated to guide the conduct of the study.

- There is significant influence of a mother's work sector on her breastfeeding rate of her 0-6months infants.
- There is no significant influence of mother's work sector on her breastfeeding rate of her 0-6months infants.

The analysis is in two sections that is, section A which is the Bio data and section B which also covers results and discussions. In this section, the SPSS software was used to work on the data and produce exploratory outputs emanating from the analysis. Some of the results are in a tabular form while others are in the graphical form.

#### **4.2 Respondents' Demographic Data**

This section presents the demographic data of respondents. The demographic data include age, level of education, employment status and work items hours per day. Table 1 collected data on age of respondents to find out if age of respondents has an influence on work and breastfeeding pattern by working mothers breastfeeding from 0-6 months in Ashanti Mampong.

**Table 1: Age of respondents**

<b>Educational Level</b>	<b>Frequency</b>	<b>Percentage</b>
<b>20-24</b>	2	1.7
<b>25-29</b>	32	26.7
<b>30-34</b>	36	30.0
<b>35-39</b>	23	19.2
<b>40-44</b>	24	20.0
<b>45-49</b>	3	2.4
<b>Total</b>	<b>120</b>	<b>100</b>

*Source: Field Survey (2019)*

The results in Table 1 shows that there are 120 respondents. 2 of the respondents representing 1.7% were aged between 20 – 24 years. They are the least in the group of respondents. 32 respondents constituting 26.7% are in the age group of 25 – 29 years. The highest age group of respondents are from 30 – 34 years. They constitute 30% of the entire sample. 23 respondents representing 19.2% of the sample are between the ages of 35 – 39 years. For the respondents between the ages 40 – 44 years, they form 20% of the sample. This group of respondents are 24 in number. The age group of 45 – 49 years had 3 respondents constituting 2.4% of the entire sample. In all, the ages have been highly represented on all fronts. The result shows that breastfeeding mothers are usually between the ages of 25 and 40. Probably age was a determining factor when it comes to breastfeeding infants 0-6 months. This further suggests that the respondents were matured enough to understand the importance of exclusive breastfeeding to infants between 0-6 months.

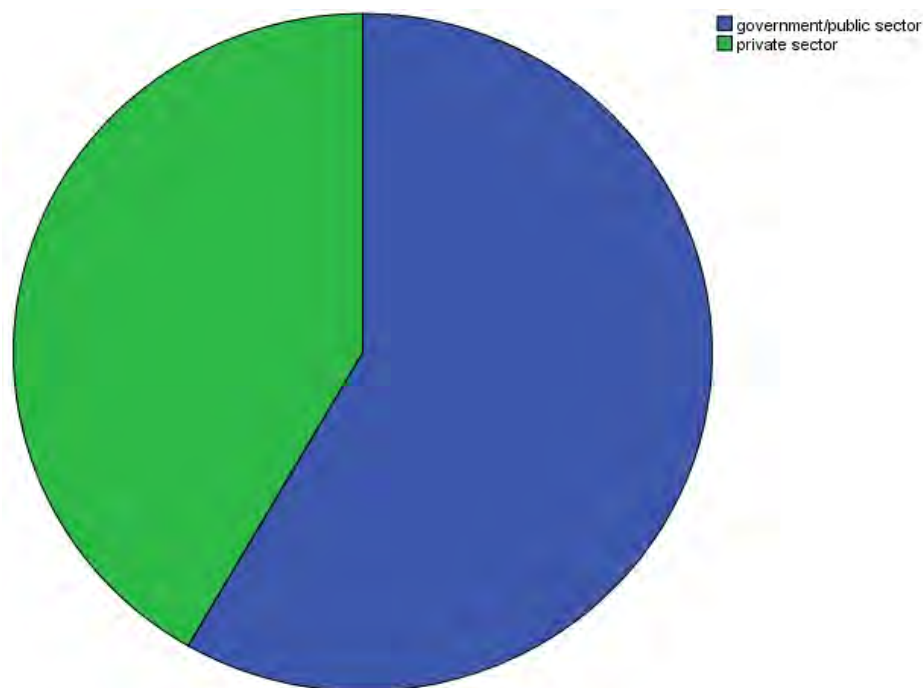
**Table 2: Educational level of respondents**

<b>Educational Level</b>	<b>Frequency</b>	<b>Percentage</b>
BECE and below	11	10.2
SSCE	28	23.3
Diploma	46	38.3
Degree/professional	35	28.2
<b>Total</b>	<b>120</b>	<b>100</b>

*Source: Field Survey (2019)*

Table 2 shows that, 28.2% of the respondents had the highest level of university degree (BSc, BA, and B.Ed or other professional certificates) with 10.2% had the lowest (BECE and below). However, those who had diploma were in the majority 38.3%. This probably may imply that, most mothers in the formal sector might have gone through educational programmes and have basic knowledge on the influence of exclusive breastfeeding on the growth of infants 0-6 months old. This may be the reason for having majority of the working mothers at the weighing centers coming from this category.

Again, having 38.3 and 28.2 % of working mothers with diploma and degree respectively is an indication that mothers are working hard to improve their status in education. This is likely to enhance their exclusive breast-feeding performance and improve their children's health status. Meanwhile, Essien and Samson-Akpan (2013) opine that urbanization, increasing levels of education, standard of living, occupation and income affect the practice of exclusive breast-feeding negatively. By contrast, in developed countries (e.g. USA, Sweden and Australia), exclusive breast-feeding is more prevalent among educated women in urban areas, although the length of exclusive breast-feeding remains short.



**Figure 1: Sector of work of respondents**

From Figure 1, 70 respondents (210<sup>0</sup>) representing 58.3% of the respondents are Government or public sector workers. 50 respondents (150<sup>0</sup>) constituting 41.6% are private sector workers. This was to find out which of these sectors provide opportunities for exclusive breastfeeding within the working environment or has an enabling environment and work policies that favour breastfeeding of infants 0-6 months old. This was to help the researcher ascertain how such policies or enabling environment help in exclusive breastfeeding of infants 0-6months old.

**Table 3: Employment Status of respondents**

<b>Employment Status</b>	<b>Frequency</b>	<b>Percentage</b>
Full time	80	66.4
Part time	40	33.6
Total	120	100

*Source: Field Survey (2019)*

Table 3 presents results on the employment status of working mothers. That is, whether mothers are working full time or part time. From the table, 80 of the respondents representing 66.4% of the sample were full time workers while 40

respondents constituting 33.7% of the sample were part time workers. All the mothers in the public sector were full time in addition to only ten from the private sector being full time.

**Table 4: Respondents work hours per day**

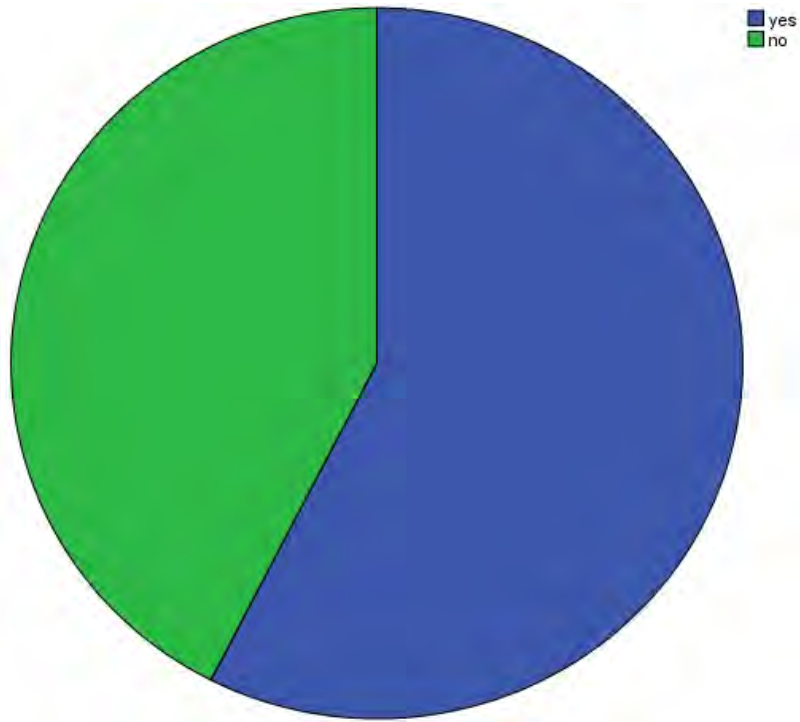
<b>Work Hours</b>	<b>Frequency</b>	<b>Percentage</b>
5 hours	26	21.7
6 hours	27	22.5
7 hours	27	22.5
8 hours	40	33.3
<b>Total</b>	<b>120</b>	<b>100</b>

*Source: Field Survey (2019)*

The Table 4 indicates the results for the number of working hours per day. 26 respondents representing 21.7% of the respondents worked for 5 hours in a day, 27 respondents constituting 22.5% of the respondents worked 6 hours per day. Another 27 respondents constituting 22.5% of the entire respondents also worked for 7 hours per day. Again, 40 respondents worked for 8 hours per day. The government workers may work for either 7 hours or 8 hours per day depending on the particular occupation.

Out of 120 respondents, 69 of them, representing 57.5% were not engaged in shift work. However, 51 constituting 42.5% were engaged in shift work. They work straight times, either the entire day or the entire night. These breast-feeding mothers were constantly engaged for 6 hours in the day, or any other form. This information can be seen in Figure 2.





**Figure 2: Shift Status of respondents**

Source: Field Survey, 2019.



### 4.3 Research Question 1 Analysis

**Table 5: Patterns of breastfeeding**

Item	Frequency	Percentage
Practicing exclusive breast-feeding		
I do practice exclusive breast-feeding	66	55.0
I do not practice exclusive breast-feeding	54	45.0
Number of times infants are breastfed in a day (Rate)		
4 – 6 times	9	7.5
7 – 9 times	34	28.3
10 – 12 times	68	56.7
Others	9	7.5
Length of breastfeeding (duration)		
4 – 6 minutes	13	10.8
7 – 9 minutes	25	20.8
10 – 12 minutes	60	50.0
Other	22	18.3
Specific time of breastfeeding		
12:00 – 5:00 am	7	5.8
9:00 – 12:00 noon	1	0.8
1:00 – 3:00 pm	7	5.8
4:00 – 6:00 pm	1	0.8
9:00 – 11:00 pm	1	0.8
Any time	103	85.8
What prompts respondents to breastfeed		
On demand or when baby cries	57	47.5
When baby wakes up	40	33.3
On hourly basis	18	15.0
Other	5	4.2

(Source: Field Survey, 2019)

Table 5 depicts clearly whether breast-feeding mothers“ practice exclusive breast-feeding, the rates, duration and time of breastfeeding of 0 – 6 months old children by working mothers in the Ashanti Mampong. The first part which dealt with whether breast-feeding mothers“ practice exclusive breast-feeding in Ashanti Mampong portrayed that 66 mothers do. This number represents 55.0% of the entire

respondents. 55 of the respondents representing 45.0% do not practice exclusive breastfeeding.

The next item (rate of breast-feeding) as indicated in Table 5 shows that no respondent feeds the child either less than 3 times in a day or 3 times a day. 9 respondents constituting 7.5% say they breastfeed their children 4-7 times daily while 34 respondents representing 28.3% say they breastfeed their 0 – 6 months children 7 – 9 times. The majority that is 68 respondents constituting 56.7% of the respondents breastfed their infants between 10 – 12 times in the day. 9 respondents representing 7.5% of the respondents breastfed their infants at irregular times. They could not estimate the rate of breastfeeding their infants in a day.

With respect to duration in breast-feeding as shown in Table 5, 13 mothers representing 10.8% say they breastfeed their children continuously between 4 – 6 minutes while 25 respondents constituting 20.8% of the respondents breastfed their 0 – 6 months continuously for 7 – 9 minutes at a time of breastfeeding. Half of the respondents that is 60 representing 50% of the entire respondents breastfed their infants continuously for 10 – 12 minutes at any particular time of breastfeeding. 22 respondents representing 18.3% of the respondents say they breastfeed their children constantly for irregular time periods. They were not consistent with the timing issues.

The next item dealt with time of breast-feeding babies 0-6 months, 7 respondents representing 5.8% indicated that they breastfed their infants usually between the hours of 12:00am – 5:00 am while 0.8% (1) said she breastfeeds the child constantly between the hours of 9:00 am - 12:00 noon each day (Table 5). Again, 7 respondents representing 5.8% of the sample say they breastfeed their children exactly between the hours of 1:00 – 3:00pm, while only 1 respondent representing 0.8% of the

respondents breastfed their infants constantly between the hours of 4:00 pm - 6:00 pm each day. Only 1 respondent representing 0.8% of the sample said she breastfeeds the child always between the hours of 9:00 pm - 11:00 pm each day while 103 respondents constituting 85.8 of the respondents breastfed their infants anytime in the day.

These findings are congruent with that of Haroon, Das, Salam, Imdad and Bhutta (2013) and Krystal, (2012) who indicated that breastfeeding at work is influenced by several social and cultural factors, which in turn influence the frequency, duration and initiation of breastfeeding practices among mothers. They also indicated that economic factors also compel mothers to work during periods required for breastfeeding. Socioeconomic status, race, ethnicity, employer's attitude and other factors have been found to affect the working mother's choice whether or not to breastfeed, and how long she breastfeeds her child (Haroon *et al.*, 2013; Krystal, 2012).

The study again sought information on what usually prompts mothers to breastfeed their 0-6 months old babies (Table 5). While only 57 respondents representing 47.5% of the respondents breastfed their infants on demand (request when the infant cries). 40 respondents with a percentage of 33.3% breastfed whenever their infants wake up from sleep. While 5 respondents representing 4.2% of the sample say they breastfeed their 0 – 6 months old babies irregularly, a section of the respondents numbering 18 with a percentage of 15.0% say they breastfeed their 0 – 6 months old babies on hourly basis.

During the first group discussion of eight mothers, as indicated in Table 5, five of them representing 62.5% indicated that they breastfeed these babies wherever and

whenever it is necessary. Four out of the eight also representing 50.0% further explained that these are the weighing practices expected of them. Two of the 0-6months breastfeeding mothers indicated that their children do not drink water except breast milk and so the slightest uneasy sign shown by their babies indicates either thirst or hunger. This leads to breastfeeding them anytime and not according to a specific duration.

In Table 6, the responses of the respondents regarding the influence of work cultures on breastfeeding patterns of mothers' breastfeeding 0 – 6 months infants.

#### 4.4 Research Question 2 Analysis

**Table 6: Influence of work cultures on breastfeeding rate and duration**

Item	Strongly Agree N (%)	Agree N (%)	Disagree N (%)	Strongly Disagree N (%)
Item 1 Maternity leave policy of employer does not supports exclusive breastfeeding	57(47.5)	63(52.5)		
Item 2 Returning to work shortly after maternity deters me from exclusive breastfeeding	36(30)	20(16.7)	35(29.2)	29(24.2)
Item 3 Early return to work after maternity contributes to early cessation of the breast milk	30(25.0)	15(12.5)	56(46.7)	19(15.8)
Item 4 Employer provides flexible time for working and breastfeeding	23s(19.2)	21(17.5)	37(30.8)	39(32.5)
Item 5 Mothers do exclusive breastfeeding at work because of good policy	7(5.8)	8(6.7)	37(30.8)	68(56.7)
Item 6 Mothers stop breastfeeding because there is no policy	19(15.8)	5(4.2)	38(31.7)	58(48.3)
Item 7 Absence of breastfeeding policy limit rate of breastfeeding	32(26.7)	28(23.3)	42(35.0)	18(15)
Item 8 Absence of breastfeeding policy limit	21(17.5)	7(5.8)	67(55.8)	5(20.8)

duration of breastfeeding				
Item 9				
Absence of breastfeeding policy limit	42(35)	27(22.5)	31(25.8)	20(16.7)
pattern of breastfeeding				
Item 10				
Fear of job security leads to cessation of breast milk	26(21.7)	25(20.8)	38(31.7)	31(25.8)
Item 11				
Working full time as a breastfeeding mother limits the frequency of breastfeeding	44(36.7)	47(39.2)	28(23.3)	1(0.8)
Item 12				
Working part time as a breastfeeding mother does not limit the frequency of breastfeeding	53(44.2)	27(22.5)	28(23.3)	12(10.0)
Item 13				
Shift work as a lactating mother does Not limit frequency of breastfeeding	38(31.7)	23(19.2)	58(48.3)	1(0.8)
Item 14				
Embarrassment associated with breastfeeding in public inhibits breastfeeding	26(21.7)	17(14.2)	50(41.7)	27(22.5)

*Source: Field Survey, (2019)*

The results displayed in Table 6 depict respondents view on the influence of work cultures on breastfeeding pattern of mothers breastfeeding for 0 – 6 months. One can clearly see that while 63(52.5%) respondents agreed that maternity leave policy of their employers does not support exclusive breastfeeding, 57(47.5%) respondents also strongly agreed that maternity leave policy of their employers does not supports exclusive breastfeeding. However, quite a small number of respondents 56(46.7%) agreed that returning to work shortly after child birth and maternity leave deters breastfeeding mothers from engaging in exclusive breastfeeding for the first 0 – 6 months. With reference to item 2, more than half of the entire respondents 64(53.4%) disagreed with the statement that returning to work shortly after child birth and maternity leave deters breastfeeding mothers from engaging in exclusive breastfeeding for the first 0 – 6 months.

While 15(12.5%) of the respondents have agreed that the early return to work after maternity leave is a contributing factor to the early termination or cessation of breastfeeding of the 0 – 6month children, 30(25.0%) of respondents strongly agreed to this item. Again a large number of the respondents 56(46.7%) disagreed to the item that early return to work after maternity leave contributes to early cessation of breast milk, 19(15.8%) of the number of respondents also strongly disagreed with the statement that the early return of lactating mothers to work after maternity leave is a contributing factor to the early termination or cessation of breastfeeding of the 0 – 6 month babies. The next variable has to do with item 4, employers and how flexible they make breastfeeding policies. Twenty-one (17.5%) of the respondents agreed with the item that employers at the various workplaces provide flexible working conditions for working and breastfeeding mothers of 0–6 months old children, while 23(19.2%) of the respondents strongly agree with them. Meanwhile 37(30.8%) of respondents disagreed with this item while 39(32.5%) of the respondents strongly disagreed with the variable that the employer at the workplace provides flexible working condition for working and breastfeeding mothers with 0–6 months old babies.

As observed in Table 6, 37(30.8%) of the respondents disagreed with the item (5) that they do exclusive breastfeeding at the workplace because employers have good breastfeeding policies for breastfeeding mothers meanwhile 68(56.7%) of them strongly disagreed to the item. On the other hand, 8(6.7%) of the respondents agreed with the statement that they do exclusive breastfeeding at the workplace because employers have good breastfeeding policies for breastfeeding mothers while 7(5.8%) of the respondents strongly agreed to this same item.

As could be seen in Table 6, a small number of 5(4.2%) of respondents agreed to the issue that they stop exclusive breastfeeding of their 0–6 months old infants because

employers have no breastfeeding policies for their workers, however, 19(15.8%) strongly agree with the variable. While 38(31.7%) of the number of respondents disagree that they stop exclusive breastfeeding of their 0 – 6 months old babies at the workplace because their employers have no breastfeeding policy for the workers in that facility, 58(48.3%) of respondents strongly disagree with this statement. This percentage is the largest in this category and this shows the reaction of respondents to the issues of policies regarding breastfeeding at the workplaces.

One can clearly see from Table 6, 28(23.3%) of the respondents agree to the statement that the absence and/or unfavourable breastfeeding policy at the workplace inhibits or limits the rate (frequency) of breastfeeding their 0 – 6 months old babies while a number of respondents numbering 32(26.7%) strongly agree to the same issue. On the other side, while 42(35.0%) of the number of respondents disagree with the statement, 18(15%) of the remaining number of respondents strongly agree with the variable that the absence and/or unfavourable breastfeeding policy at the workplace inhibits/limits the rate s(frequency) of breastfeeding their 0 – 6 months old babies. A huge number of 67(55.8%) of the number of respondents disagree with the statement that the absence and/or unfavourable breastfeeding policy at the workplace inhibits/limits the duration (how long) of breastfeeding their 0 – 6 months old babies while 25(20.8%) of the number of respondents strongly disagree with the variable that the absence and/or unfavourable breastfeeding policy at the workplace inhibits/limits the duration (how long) of breastfeeding their 0 – 6 months old babies. On the contrary, while 7(5.8%) of a number of the lactating mothers agree with the item that the absence and/or unfavourable breastfeeding policy at the workplace inhibits/limits the duration (how long) of breastfeeding their 0 – 6 months old babies, 21(17.5%) of the number of the remaining of respondents strongly agree to same. When it came to the



interference of the breastfeeding pattern, 27(22.5%) of the respondents agree that the absence and/or unfavourable breastfeeding policy at the workplace inhibits/limits the pattern of breastfeeding their 0 – 6 months old babies, while about double of the same number 42(35.0%) of the respondents strongly agree to the issue that the absence and/or unfavourable breastfeeding policy at the workplace affects the pattern of breastfeeding their 0 – 6 months old babies. for the respondents who have disagreed with the item, 31(25.8%) of the number of respondents disagreed with the statement that the absence and/or unfavourable breastfeeding policy at the workplace affects the pattern of breastfeeding their 0 – 6 months old babies while 20(16.7%) of the remaining respondents strongly disagreed with same.

As listed in Table 6, the fear of job insecurity is another variable that was considered. While 25(20.8%) of the number of respondents agree with the statement that the fear of job insecurity leads to early cessation of breastfeeding their 0 – 6 month old babies, an averagely the same number of 26(21.7%) respondents strongly agree with the item that the fear of job insecurity leads to early cessation of breastfeeding their 0 – 6 month old babies. On the contrary, 38(31.7%) of the respondents disagree with the issue that the fear of job insecurity leads to early cessation of breastfeeding their 0 – 6 month old babies while an arguably about the same number of 31(25.8%) of respondents strongly disagreed with the issue of the fear of job insecurity leads to early cessation of breastfeeding their 0 – 6 month old babies. Also, 47(39.2%) of respondents agree with the item that working full time as a breastfeeding mother inhibits/limits the number of times (frequency), how long (duration) and the pattern of breastfeeding their 0 – 6 month old babies while 44(36.7%) of the respondents strongly agree to the issue that working full time as a breastfeeding mother inhibits/limits the number of times (frequency), how long (duration) and the time of

breastfeeding their 0 – 6 month old babies. On the other side, 28(23.3%) of respondents disagreed with the item while only 1(0.8%) of the respondents strongly disagreed with the variable that working full time as a breastfeeding mother inhibits/limits the number of times (frequency), how long (duration) and the time of breastfeeding their 0 – 6 month old babies. The next variable is work on part – time basis. 27(22.5%) of the respondents agree to the variable that working part - time as a breastfeeding mother does not inhibits/limits the number of times (frequency), how long (duration) and the time of breastfeeding their 0 – 6 month old babies while a huge number of 53(44.2%) of the respondents strongly agree with the variable. 28(23.3%) of the respondents disagree with the item above while 12(10.0%) number of respondents strongly disagree with the variable that working part – time as a breastfeeding mother does not inhibits/limits the number of times (frequency), how long (duration) and the time of breastfeeding their 0 – 6 month old babies. 23(19.2%) of respondents agree to a weak extent that working on shift (shift work) as a breastfeeding mother does not inhibits/limits the number of times (frequency), how long (duration) and the time of breastfeeding their 0 – 6 month old babies, while 38(31.7%) a slightly higher number strongly agree with the item that working on shift as a breastfeeding mother does not inhibits/limits the number of times (frequency), how long (duration) and the time of breastfeeding their 0 – 6 month old babies. About half of the respondents, 58(48.3%) disagree with the item while only 1(0.8%) of the respondents strongly disagree that working on shift as a breastfeeding mother does not inhibits/limits the number of times (frequency), how long (duration) and the time of breastfeeding their 0 – 6 month old babies.

About half of the respondents numbering 50(41.7%) of the entire sample disagree that humiliation associated with breastfeeding in public and workplaces leads mothers to

look for an alternative to breastfeeding, while 27(22.5%) of the remaining sample strongly disagree with same (Table 6). In total, 77 respondents said negative and that they disagree with the idea. 17(14.2%) of the sample of respondents agree that humiliation associated with breastfeeding in public and workplaces leads mothers to look for an alternative to breastfeeding while 26(21.7%) of the remaining sample strongly agree with the issue that embarrassment associated with breastfeeding in public and workplaces leads mothers to look for an alternative to breastfeeding.

In the interview fourteen breastfeeding mothers indicated that they do not care to lose their jobs because of their babies. Four of them were of the opinion that humiliation is out of context when talking about breastfeeding their babies. Two of them said something funny but worth mentioning. She said:

*Why should I feel humiliated due to breastfeeding of my 0-6 months old baby and again why should I think of being dismissed, did my employer not suck the mother's breast. If am dismissed because of my baby posterity will judge him (Participant, 5).*

*I wouldn't have an alternative to my breast milk and the nature of my work will never ever serve as a limitation to the frequency of feeding my baby. My daughter is undergoing exclusive breastfeeding and that is final. If I don't give it to her will I take the milk myself. My husband should be prepared to take full responsibility of the home if am dismissed because of our daughter. I feed my child on breast milk alone for the first six months. (p.11)*

The finding is in contrast with Amin *et al.*, (2011), who found out that most breastfeeding cease at some point in the first month after giving birth. They suggested that mothers in different parts of the world face early barriers that generally deter them from continuing to breastfeed even after successful initiation. According to them, a number of factors such as maternal age, residence, employment status, education, income level, number of children, and delivery type influence exclusive breastfeeding behavior. Seven key barriers were also identified: lack of knowledge,

lactation problems, poor family and social support, social norms, embarrassment, employment and child care, and health services (El Mouzan *et al.*, 2009; Al-Hreashy *et al.*, 2008 & USDHHS, 2011).

Table 7 shows information regarding the reaction of respondents when it comes to the challenges associated with breastfeeding at their various work places. The responses are on a likert scale ranging from strongly agree, agree, and disagree to strongly disagree.

#### 4.5 Research Question 3 Analysis

**Table 7: Challenges facing lactating mothers at their work places**

Challenges	Strongly agree N (%)	Agree N (%)	Disagree N (%)	Strongly disagree N (%)
My employer does not allow lactating mothers to breastfeed during work time	58(48.3)	20(16.7)	27(22.5)	15(12.5)
Employer does not provide breastfeeding mothers with flexible time at the work place	50(41.7)	30(25.0)	38(31.7)	2(1.7)
There is no private room at the work place for breastfeeding mothers to express their breast milk	54(45.0)	63(52.5)	-	3(2.5)
Employer does not provide breastfeeding mothers with adequate maternity leave	52(43.3)	46(38.3)	20(16.7)	2(1.7)
Employer does not offer lighter jobs to lactating mothers	54(45.0)	29(24.2)	16(13.3)	21(17.5)
Employer does not provide breastfeeding mothers with breastfeeding information on return from maternity leave.	73(60.8)	45(37.5)	1(0.8)	1(0.8)
Employer does not provide mothers with information about breastfeeding and work.	58(48.3)	58(48.3)	1(0.8)	3(2.5)
Employer has written policies for lactating mothers for breastfeeding	14(11.7)	24(20)	16(13.3)	66(55.0)
My co – workers do not change their break times with lactating mothers to help them breastfeed their children	18(15.0)	52(43.3)	44(36.7)	6(5.0)
My co – workers do not cover the duties of lactating mothers to help them breastfeed their children	16(13.3)	56(46.7)	44(36.7)	4(3.3)
Breaks for breastfeeding mothers are not frequent enough for breastfeeding.	44(36.7)	50(41.7)	4(3.3)	22(18.3)
Breaks for breastfeeding mothers are long	26(21.7)	7(5.8)	60(50)	27(22.5)

enough for breastfeeding.

Employer has no job-designated place for lactating mothers to breastfeed during the work day.	56(46.7)	24(20.0)	30(25.0)	10(8.3)
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*Source: Field Survey, 2019*

The first item on Table 7 illustrates that 20 respondents (16.7%) agreed that the employer does not allow breastfeeding mothers to breastfeed during work time while a great number of 58 respondents (48.3%) strongly agreed that the employer does not allow breastfeeding mothers to breastfeed during work time. For the negative side, while 27 respondents (22.5%) disagreed with the item that the employer does not allow breastfeeding mothers to breastfeed during work time, 15 respondents (12.5%) of the sample strongly disagreed with same. Also, 38 respondents (31.7%) disagree that the employer does not provide the lactating mothers with flexible time at work while 2 respondents (1.7%) said that their employer does not provide lactating mothers with flexible time at work to breastfeed during work time. On the contrary, while 30 respondents (25.0%) agreed to same, 50 respondents representing (41.7%) strongly agreed that the employer does not provide the lactating mothers with flexible time at work to breastfeed their children.

As captured in Table 7, a huge number of 63 respondents (52.5%) agreed with the statement that there is no private room at the workplace for lactating mothers to breastfeed their children while 54 respondents (45.0%) strongly agreed that there is no separate or private room at the work place for breastfeeding mothers to express breast milk. Only 3 respondents constituting 2.5% of the entire respondents strongly disagreed that there is no separate or private room at the work place for breastfeeding mothers to express breast milk.

Forty-six (46) respondents (38.3%) agreed that the employer does not provide adequate maternity leave to lactating mothers to breastfeed their children while 52 respondents (43.3%) strongly agreed that the employer does not provide adequate maternity leave for breastfeeding mothers to feed their children. Twenty (20) respondents (16.7%) respondents disagreed that the employer does not provide adequate maternity leave for breastfeeding mothers to express breast milk, while 2 respondents (1.70%) strongly disagreed with same as shown in Table 7.

As presented in Table 7, 16 of the respondents (13.3%) disagreed with the item that the employer does not offer lighter jobs to breastfeeding mothers during lactation period, 21 respondents (17.5%) strongly disagreed that the employer does not offer lighter jobs to breastfeeding mothers during lactation period. Twenty-nine (29) of the respondents (24.2%) agreed that the employer does not offer lighter jobs to breastfeeding mothers during lactation period, while huge number of respondents of 54 respondents (45.0%) strongly agreed that the employer does not offer lighter jobs to breastfeeding mothers during lactation period. In the next statement, almost all the respondents agreed. Twenty-five (45) respondents representing 37.5% of the respondents asgreed that the employer does not provide information regarding breastfeeding options for lactating mothers while a huge number of 73 respondents (60.8%) strongly agreed to same. 1 respondent (0.8%) disagreed with same while another 1 respondent (0.8%) also strongly disagreed to the employer does not provide information regarding breastfeeding options to mothers during lactation period.

Again in Table 7, 58 respondents (48.3%) agreed to the variable that the employer does not provide information about combining breastfeeding and work while the same number (percentage) strongly agreed to same. While 1 respondent (0.8%) disagree with the statement, 3 respondents (2.5) disagreed strongly with the statement that the

employer does not provide information about the combination of work and breastfeeding. While 24 respondents (20.0%) agreed that the employer has written policies for the breastfeeding mothers for breastfeeding or pumping breast milk, 14 respondents (11.7%) strongly agreed that the employer has written policies for the breastfeeding mothers for breastfeeding or pumping breast milk. While 16 respondents (13.3%) disagreed to the statement, a gargantuan number of 66 respondents (55.0%), more than half of the entire respondents strongly disagreed that the employer has written policies for the breastfeeding mothers for breastfeeding or pumping breast milk.

From the Table 7, the statement „co-workers in a particular department do not change their break times with lactating mothers so that the mothers can have enough time to breastfeed their children“ was met with a surprise. While 52 respondents (43.3%) agreed to the statement, 18 respondents (15.0%) strongly agreed to same. 44 respondents (36.7%) disagreed with the statement while 6 respondents (5.0%) strongly disagreed that co-workers in a particular department do not change their break times with lactating mothers so that the mothers can have enough time to breastfeed their children.

As stated in Table 7, 16 of the respondents (13.3%) strongly agreed to the statement that co-workers in a particular department do not cover my job duties of the lactating mothers so that the mothers can have enough time to breastfeed their children, a number of 56 respondents (46.7%) agreed with the statement. While 44 respondents (36.7%) disagreed with the statement that co-workers in a particular department do not cover the job duties of the lactating mothers so that the mothers can have enough time to breastfeed their infant. 4 respondents (3.3%) strongly disagreed with the statement that co-workers in a particular department do not cover the job duties of the

lactating mothers so that the mothers can have enough time to breastfeed their children. The respondents also answered the questions on their break times. 50 respondents (41.7%) agreed to the statement that their breaks are not frequent enough for breastfeeding or even pumping breast milk, while 44 respondents (36.7%) strongly agreed that their breaks are not frequent enough to cater for their infants. Only 4 respondents (3.3%) disagreed with the statement but 22 respondents (18.3%) strongly disagreed that their breaks are not frequent enough for breastfeeding or even pumping breast milk.

The next variable also has to do with the inconvenience of the short break (Table 7). While 33 respondents constituting 27.3% of the entire respondents agreed that their breaks are long enough to allow for the breastfeeding of their children, a large number of 87 respondents (72.5%) strongly disagreed that the breaks are long enough to allow for breastfeeding.

The final item in Table deals with the part of the challenges has to do with job designation. While 24 respondents (20.0%) agreed that the employer has no job designation place for breastfeeding mothers to breastfeed or pump milk during the workday, 56 respondents (46.7%) strongly agreed that the employer has no job designation place for breastfeeding mothers to breastfeed or pump milk during the workday. While 30 respondents (25.0%) disagreed that the employer has no job designation place for breastfeeding mothers to breastfeed or pump milk during the workday, a small number of 10 respondents (8.3%) strongly disagreed that the employer has no job designation place for breastfeeding mothers to breastfeed or pump milk during the workday. These were some of the challenges the respondents faced at their various work places with their employers.



#### 4.6 Research Question Four Analysis

**Table 8: Measures to improve mothers breastfeeding pattern**

Statement	Strongly Agree N(%)	Disagree N(%)	Disagree N(%)	Strongly Agree N(%)
Employer should provide prenatal and postpartum services	79(65.8)	39(32.5)	1(0.8)	1(0.8)
Employer should provide flexible Time for lactating mother	96(80.0)	24(20.0)	0	0
Employer should provide lighter Jobs for lactating mothers	70(52.5)	47(39.2)	3(2.5)	0
Employer should provide fridge for breast milk storage	63(52.5)	45(37.5)	10(8.3)	2(1.7)
Employer should provide break for pumping of breast milk	70(58.3)	46(38.3)	4(3.3)	0
Employer should provide counselling for lactating mothers	62(51.7)	58(48.3)	0	0
Employer should have specific written policies addressing breastfeeding issues at the work place	77(64.2)	41(34.2)	0	2(1.7)
Employer should provide longer maternity leave and feeding duration for lactating mothers	72(60)	47(39.2)	1(0.8)	0
Employer should provide reasonable break time for breast feeding	65(54.2)	51(42.5)	4(3.3)	0
Government should pass a legislation promoting female workers breastfeeding rights and implementing same	100(83.3)	20(16.7)	0	0

*Source: Field Survey, 2019*

With reference to Table 8, though 1 respondent (0.8%) disagreed that employers should provide prenatal/postpartum services such as separate rooms for working mothers to breastfeed their infants, 1 respondent (0.8%) also disagreed strongly on the same issue. Thirty-two (32.5%) of the respondents agreed that the employer should provide prenatal/postpartum services such as separate rooms for working mothers to breastfeed their children while 79 respondents (65.8%) strongly agreed that the employer should provide prenatal/postpartum services such as separate rooms for

working mothers to breastfeed their infants. On the issue of flexibility, while 24 respondents (20%) agreed that the employer should provide flexible time for working mothers to breastfeed their children, a huge number of 96 respondents (80%) strongly agreed that the employer should provide flexible time to working mothers to breastfeed their children.

When it came to the issue of the employer providing lighter jobs to the lactating mothers, 47 respondents (39.2%) agreed that the employer should provide part – time and lighter jobs to working mothers to help them breastfeed their children while 3 respondents (2.5%) disagreed with the statement. Also, 70 respondents (58.3%) strongly agreed that the employer should provide part – time and lighter jobs to working mothers to enable them have time and breastfeed their children.

While 10 respondents (8.3%) disagreed that the employer should provide refrigerators for storing breast milk for the working mothers, 2 respondents (1.7%) strongly disagreed that the employer should provide a refrigerator for the nursing mothers to store breast milk to feed their infants. 45 respondents (37.5%) agreed that the employer should provide the lactating mothers with a refrigerator that will help them store breast milk for their kids, while a vast number of 63 respondents (52.5%) strongly agreed that the employer should provide refrigerators for working mothers to store breast milk that will help them breastfeed their children on breaks and free times. The next item on the provision of breaks, while 4 respondents (3.3%) disagreed to the statement that the employer should provide breaks for pumping or breastfeeding their infants, 46(38.3%) of the informants agree that the employer should provide breaks for pumping of breast feeding their infants. An enormous number of 70 respondents (58.3%) strongly agreed with the statement that the employer should provide breaks to lactating mothers to enable them breastfeed their infants.

On the issue of counselling breastfeeding mothers, there was an enormous response from the respondents. 58 respondents (48.3%) agreed that the employer should provide breastfeeding counselling services to working mothers to encourage them to breastfeed their children while a huge number of 62 respondents (51.7%) strongly agreed that the employer should provide breastfeeding counselling services to mothers to empower them to breastfeed their infants. With the statement about written policies, 2 respondents (1.7%) disagreed strongly that the employer should provide specific written policies addressing work place breastfeeding support but 41 respondents (34.2%) agreed that the employer should provide specific written policies addressing work place breastfeeding support. Seventy-seven (77) respondents (64.2%) strongly agreed that the employer should provide specific written policies addressing work place breastfeeding support. This support will enable lactating mothers have enough time and place to confidently breastfeed their 0 – 6 months babies well. Going forward, only 1 respondent (0.8%) disagreed that the employer should provide longer maternity leave and longer breastfeeding duration to lactating mothers to breastfeed their infants while 47 respondents (39.2%) agreed to the issue. A huge number of 72 respondents (60%) strongly agreed that their employer should provide longer maternity leave and longer breastfeeding duration to lactating mothers to breastfeed their infants.

The item about provision of a reasonable break was responded to positively by almost all the respondents. While 51 respondents (42.5%) agreed that the employer should provide reasonable break time for lactating mothers to express their breast milk to feed their infants, 65 respondents (52.4%) strongly agreed to same. Only some 4 respondents (3.3%) disagreed with the statement that the employer should provide reasonable break time for lactating mothers to express their breast milk to breastfeed

their infants. 20 respondents (16.7%) agreed that Government should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation in accordance with the international labour laws while a massive number of 100 respondents (83.3%) strongly agreed that the Government should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation in accordance with the international labour laws. The above are the discussions on the measures one must adopt to efficiently breastfeed their 0 – 6 months infants as working mothers.

These findings support the assertion by Hirani and Karmaliani (2013) who indicated in their study that the workplaces are lacking minimum measures to support breastfeeding practices such as, flexible time for breastfeeding, separate room for breastfeeding, separate refrigerator for storing breast milk, breast pump, child care and adequate maternity leave.

#### **4.7 Discussions of the results/findings**

The results presented on demographic data shows that 32(26.7%) respondents aged between 25 – 29 years, 36 (respondents 30%) of the respondents are the aged between 30 – 34 years and a smaller number of 23 respondents (19.2%) are aged between 35 – 39 years. An equally small number of 24 respondents (20%) are aged between 40 – 44 years. This shows that majority of workers in Mampong Ashanti are youth, young and energetic.

With level of education, 46 respondents (38.3%) have completed various Colleges of Education while 35 respondents (28.2%) have completed various Universities. The majority of working mothers hold diploma in education and this could be a reason of taking advantage of the nursing and teacher training colleges in the town.<sup>70</sup>

respondents (58.3%) of the working mothers were into Government work while 50 respondents (41.7%) worked at the private sector. 80 respondents (66.4%) were full time employed. Those who worked part time may probably be While 22 respondents (18.3%) worked for 4 hours per day, 26 respondents (21.7%) worked for 5 hours. 5 respondents (4.2%) worked 8 hours per day while 30 respondents (25.0%) worked 9 hours per week. With the issue of shift status, 69 respondents (57.5%) were engaged in shift work while 51 respondents (42.5%) did not engage in the shift work. The next paragraph discusses the pattern of breastfeeding of working mothers.

On the issue with pattern of breastfeeding 0 – 6 months infants, 66 respondents (55.0%) practiced exclusive breastfeeding. As many as 68 respondents (56.7%) said they breastfed their 0 – 6 months infants 10 – 12 times in a day while 60 respondents (50.0%) of the respondents also said they continuously breastfed their infants 10 – 12 minutes on each breast at a sitting. A huge number of 103 respondents (85.8%) alluded that they usually breastfed their infants anytime or at no specific time. As many as 57 respondents (47.5%) revealed that when it comes to what prompts them to breastfeed, they breastfed whenever their infants cries. This pattern meets the recommended standard of the World Health Organisation. This could be that mothers are aware of the numerous benefits of breastfeeding and the social support they get from other people such as their relatives. This is contrary to the assertion of Gillman et al., 2004 that a mother's employment can be a barrier to exclusive breastfeeding. The finding is also contrary to Amin *et al.*, (2011), who found out that most breastfeeding cease at some point in the first month after giving birth. The next paragraph discusses the influence of work cultures on working mothers' breastfeeding pattern.

On the issue of influence of work cultures on breastfeeding pattern of mothers breastfeeding for 0 – 6 months infants, 57 respondents (47.5%) strongly agreed that, maternity leave policy of the employer does not support exclusive breastfeeding while 36 respondents (30.0%) strongly agreed that returning to work shortly after a childbirth and maternity leave deters them from exclusive breastfeeding for the first 0 – 6 months. 56 respondents (46.7%) disagreed with the statement that early return to work after maternity leave is a contributor to the early termination or cessation of breastfeeding of their infants while 39 respondents (32.5%) of the respondents also disagreed strongly with the item that the employer provides flexible time for working mothers. A number of 68 respondents (56.7%) strongly disagreed that they do exclusive breastfeeding because their employers have policies for the workers while 58 respondents (48.3%) disagreed strongly that they discontinue exclusive breastfeeding of their 0 – 6 months infants at the workplace because their employer has no breastfeeding policy at the work place. Again, 42 respondents (35%) disagreed that absence and/or unfavourable breastfeeding policy at their various workplaces limit/inhibit the rate (number of times) they breastfed their 0 – 6 months infants.

Sixty-seven (67) respondents (55.8%) disagreed to the statement that absence and/or unfavourable breastfeeding policy at their various workplaces limit/inhibit how long duration (duration) they breastfed their infants while 42 respondents (35.0%) strongly agreed that absence and/or unfavourable breastfeeding policy at their various workplaces limit/inhibit the pattern of breastfeeding. This is contrary to the assertion of Krystal, 2012 that work cultures limit the duration and frequency of breastfeeding. Again, 38 of the respondents (31.7%) disagreed that the fear of job insecurity leads to early cessation of breastfeeding. Moreover, 47 respondents (39.2%) agreed that working on a full – time as a working mother inhibits/limits the number of times, how

long and times they breastfed while 53 respondents (44.2%) of the respondents strongly agreed that working on part – time (less than 4 hours a day) as breastfeeding mothers do not inhibit or limit the number of times, how long and the time they breastfed. 58 respondents (48.3%) disagreed that working on shift (shift work) as breastfeeding mothers do not inhibit/limit the number of times, how long and the time of breastfeeding their 0 – 6 months old babies. Finally, 50 respondents (41.7%) disagreed that embarrassment associated with breastfeeding in public and work places leads mothers to look for an alternative to breastfeeding their infants.

This study proves the assertion by Allen *et al.*, (2014) that many developed countries are still devoid of precise policies for breastfeeding promotion at the workplaces. Developing countries are extremely lacking in several areas (Atabay *et al.*, 2015; Vera, 2015; Rivera, *et al.*, (2014); WHO, 2009). Numerous studies indicated large gap between written and implemented policies (Atabay *et al.*, 2015; Hirani & Karmaliani (2013; Weber *et al.*, 2011; Amin *et al.*, 2011; WHO, 2009). The next paragraph discusses the challenges lactating mothers face at their work places.

From the results, 58 of the respondents (48.3%) strongly agreed that the employer does not allow the mothers to breastfeed during work time while 50 respondents (41.7%) strongly agreed that the employer does not provide the breastfeeding mothers with flexible time at the work place. While 63 respondents (52.5%) agreed that there is no private room (not a restroom or lunch room) at the workplace for the lactating mothers to breastfeed their infants, 52 respondents (43.3%) strongly agreed that the employer does not provide the lactating mothers with adequate maternity leave. 54 respondents (45.0%) strongly agreed that the employer does not offer lighter jobs or task adjustment to working mothers during lactating period while 73 respondents (60.8%) strongly agreed that the employer does not provide information regarding

breastfeeding options for lactating mothers upon return to work after the maternity leave. While 58 respondents (48.3%) strongly agreed that the employer does not provide information about combining work and breastfeeding, 6 respondents (5.0%) strongly disagreed that the employer has written policies for lactating mothers for breastfeeding or pumping breast milk.

The respondents do not confirm the findings of Stuebe, Gillman, Kleinman, Rifas-Shiman and Rich-Edwards (2007) when they stated that a mother's employment can be a barrier to practicing exclusive breastfeeding especially if maternity leave is short. For example, in Ghana where it is 90 days long. And also due to a short maternity leave, some mothers tend to introduce other foods at the age of three months because they have to go back to work (Armstrong & Reilly, 2002).

Fifty-two (43.3%) of the respondents agreed that their co-workers do not change their break times with the breastfeeding mothers so that they could breastfeed their 0 – 6 months children while 56 of the respondents (46.7%) agreed that their co-workers do not cover their job duties if they needed time to breastfeed their infants. For the next challenge, 50 of the respondents (41.7%) agreed that their breaks are not frequent enough for breastfeeding or pumping of breast milk while 60 of the respondents (50.0%) disagreed that their breaks are not long enough for breastfeeding or pumping breast milk. Finally, 56 of the respondents (46.7%) strongly agreed that the employer has no job – designated place for breastfeeding mothers to breastfeed or pump milk during the work day.

The next set of statements has to do with the measures taken to improve the pattern of breastfeeding among working mothers. Seventy-nine (79) respondents (65.8%) strongly agreed that the employer should provide prenatal/postpartum services such as



separate rooms for the lactating mothers while 96 respondents (80%) strongly agreed that the employer should provide flexible time to lactating mothers. Seventy (70) respondents (58.3%) strongly agreed that the employer should provide part – time and lighter job to working and lactating mothers while 62 respondents (51.7%) agreed that the employer should provide breastfeeding counselling services to working and lactating mothers. 77 respondents (64.2%) strongly agreed that the employer should have specific written policies addressing work place breastfeeding support while 72 respondents (60.0%) strongly agreed that the employer should provide long maternity leave and longer breastfeeding duration to lactating mothers. Sixty-five (65) respondents (54.2%) strongly agreed that the employer should provide reasonable break time for lactating mothers to express breast milk for their babies while 100 respondents (83.3%) strongly agreed that the Government should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation in accordance with international labour laws.

#### **4.8 Testing of Hypothesis**

This study was tested under a null and an alternative hypothesis. The following statements underlisted are the hypothesis that guided the study:

Null Hypothesis: There is no significant influence of a mother’s work sector on her breastfeeding rate.

Alternative Hypothesis: There is significant influence of a mother’s sector of work on her breastfeeding rate.

**Table 9: Correlations**

		<b>Mother's sector of work</b>	<b>Times infants are breastfed in a day</b>
Which Sector do you work	Pearson Correlation	1	-.005*
	Sig. (2-tailed)		.960
	N	120	120
W breastfeed the child?	Pearson Correlation	-.005*	1
	Sig. (2-tailed)	.960	
	N	120	120

*Source: Field Survey, 2019*

Correlation is significant at the 0.05 level of significance (2 tailed)

Pearson's correlation method was used to test a two tailed hypothesis which states that there is no statistically significant influence of mother's work sector on breastfeeding on her breastfeeding rate. As indicated in Table 9, the result revealed that there was a statistically significant relationship between the sector of work and the rate of breastfeeding their infants in Mampong Ashanti ( $r = -0.005$ ;  $n = 120$ ;  $p < 0.05$ ). This means that the stricter the work cultures, the lesser number of times mothers breastfeed their infants. This result, when compared with the null hypothesis is not consistent. This therefore means that the researcher rejects the null hypothesis and believes now that there will be a significantly influence of a mother's work sector on her breastfeeding rate of their 0 – 6 months old infants in Mampong Ashanti.

**Table 10: Multivariate analysis of variance of the influence of work on mothers breastfeeding their 0 – 6 months infants**

**Test between –subject effects <sup>a</sup>**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	Your work hours per day	6517.995 <sup>b</sup>	8	814.749	85.043	.000*
	Which Sector do you work	918.442 <sup>c</sup>	8	114.805	121.811	.000*
C15	Your work hours per day	1.218	1	1.218	.114	.006*
	Which Sector do you work	1.118	1	1.118	1.010	.004*
C17	Your work hours per day	.121	1	.121	.017	.025*
	Which Sector do you work	.021	1	.021	.120	.012*
C18	Your work hours per day	18.211	1	18.211	1.121	.021*
	Which Sector do you work	.120	1	.120	.016	.011*
C19	Your work hours per day	12.211	1	12.211	1.121	.022*
	Which Sector do you work	.117	1	.117	.224	.021*
C25	Your work hours per day	1.126	1	1.126	.112	.041*
	Which Sector do you work	1.211	1	1.211	1.531	.017*
C26	Your work hours per day	2.112	1	2.112	.111	.009*
	Which Sector do you work	.058	1	.058	.010	.042*
B9	Your work hours per day	65.772	2	32.886	3.433	.036*
	Which Sector do you work	7.380	2	3.690	3.915	.023*
Error	Your work hours per day	107.005	112	0.955		
	Which Sector do you work	101.558	112	.907		
Total	Your work hours per day	7591.000	120			
	Which Sector do you work	1024.000	120			

a. Weighted Least Squares Regression - Weighted by Employers should pass a legislation promoting female workers breastfeeding rights and instituting means for its implementation

b. R Squared = .859 (Adjusted R Squared = .849)

c. R Squared = .897 (Adjusted R Squared = .890)

d. R Squared = .834 (Adjusted R Squared = .822).

Table 10 illustrates the multivariate analysis of variance (sector of work and work hours per day) of the influence of formal employment on breastfeeding mothers and

their pattern of work with regards to breastfeeding their 0 – 6 months children. From the Table 10, the model has to do with the work hours per day and the sector of work (the formal) with the same degree of freedom, the mean squares are 814.749 and 114.805. The data has a significance level of 0.000. The model used some variables to form its coefficients with the error term and the total. The R Square values and the adjusted are equally displayed under the table above.

**Table 11: Multivariate tests<sup>a</sup>**

Dependent Variables		Value	F	Hypothesis df	Error df	Sig.
Your work hours per day, Which Sector do you work	Pillai's Trace	1.144	1.039	126.000	98.000	.042*
	Wilks' Lambda	.183	1.018 <sup>b</sup>	126.000	96.000	.046*
	Hotelling's Trace	2.674	.997	126.000	94.000	.044*
	Roy's Largest Root	1.381	1.074 <sup>c</sup>	63.000	49.000	.040*
Your work hours per day	Pillai's Trace	.573	1.044 <sup>b</sup>	63.000	49.000	.044*
	Wilks' Lambda	.427	1.044 <sup>b</sup>	63.000	49.000	.044*
	Hotelling's Trace	1.342	1.044 <sup>b</sup>	63.000	49.000	.044*
	Roy's Largest Root	1.342	1.044 <sup>b</sup>	63.000	49.000	.044*
Which Sector do you work	Pillai's Trace	.566	1.014 <sup>b</sup>	63.000	49.000	.044*
	Wilks' Lambda	.434	1.014 <sup>b</sup>	63.000	49.000	.044*
	Hotelling's Trace	1.304	1.014 <sup>b</sup>	63.000	49.000	.044*
	Roy's Largest Root	1.304	1.014 <sup>b</sup>	63.000	49.000	.044*

a. Weighted Least Squares Regression - Weighted by Employer should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation

The Table 11 illustrates the multivariate tests between all the dependent variables in considering working mothers and their ability to fully breastfeed their 0 – 6 months children without constraints at work. The table shows that working mothers exclusive breast-feeding is dependent on the sector of work of the mother and the number of hours worked per a day of the lactating mother.

**Table 12: Univariate testsa**

<b>Dependent Variable</b>	<b>Source</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Your work hours per day	Lack of Fit	459.916	63	7.300	1.044	.039*
	Pure Error	401.089	49	8.185		
Which Sector do you work	Lack of Fit	31.743	63	.504	1.014	.042*
	Pure Error	22.321	49	.456		

*Source: Field Survey, 2019*

From Table 12, one can clearly see that, the variables being measured were the working hours in the day and the sector of work. The table portrayed that breastfeeding mothers have a source of lack of fit with its sum of squares give as 459.916, 63 degree of freedom, a mean square of 7.30 and an F value of 1.044. This value is significant at 0.039. When it comes to the formal work (which sector do you work), the sum of squares for the lack of fit is 31.743 with a degree of freedom of 63 and the mean of squares of 0.504. The same variable has an F value of 1.014 and a level of significance of 0.042. These values can clearly be seen from the table above. The work of hours per day was very significant at 0.039 while the sector of work was equally significant. For our hypothesis, the values show clearly that they were significant, we rejected the null hypothesis and concluded on the alternative that there is significant influence of a mother's work sector on her breastfeeding rate for 0 – 6

months old infants in the Ashanti Mampong. This must inform policy makers to adjust the working rules to suit working mothers so they can breastfeed as expected.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH**

#### **5.1. Overviews**

This chapter deals with the summary, conclusions and recommendations of the study. The general objective of the study was to examine the influence of formal employment on breast feeding patterns by working mothers breastfeeding infants from 0-6 months in the Ashanti Mampong in the Ashanti Region of Ghana.

#### **5.2 Summary of the Study Findings**

The study was guided by four research questions. The first question sought to determine the patterns of breastfeeding by working mothers breastfeeding from 0-6 months infants in the Ashanti Mampong in the Ashanti Region of Ghana. The study established that majority of working mothers (55.0%) in the Ashanti Mampong do exclusive breastfeeding. For example 57% of them breastfeed their children between 10 – 12 times in the day and 50% of the entire respondents say they breastfeed their infants continuously for 10 – 12 minutes on each breast at no particular or specific time when infants cry.

The second question sought to assess how work cultures influence breastfeeding patterns of working mothers breastfeeding from 0-6 months infants in Ashanti Mampong. The study revealed that returning to work shortly after child birth and maternity leave does not deter breastfeeding mothers from engaging in exclusive breastfeeding of their babies from 0 – 6 months. Again, there were no favourable policies that support exclusive breastfeeding but this did not deter them from practicing exclusive breastfeeding.

The third question sought to assess the challenges faced or encountered at their work places of working mothers breastfeeding infants from 0-6 months in Ashanti Mampong. The study established that employers do not provide working mothers with flexible time at the work place for breastfeeding. Besides, there are no private rooms at the work place to express their breast milk for their infants if the need be and working mothers are also not offered lighter jobs in their work places. Notwithstanding, it was also revealed that most employers have no job-designated place for lactating mothers to breastfeed during the working day.

The fourth research question sought to find out measures that can be put in place to improve the pattern of breastfeeding among working mothers. The study established that employer should provide prenatal/postpartum services such as separate rooms for working mothers to breastfeed their children, provide flexible time for working mothers to breastfeed their children and provide breastfeeding counselling services to working mothers to encourage them breastfeed their children. The study also found that employers should provide specific written policies addressing work place breastfeeding, longer maternity leave and longer breastfeeding duration to lactating mothers to breastfeed their children, provision of a reasonable break. The Government should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation in accordance with the international labour laws.



## 5.2 Conclusions of the Study

Considering the above findings, the study concluded that the working mothers in the Ashanti Mampong breastfed their infants on an average rate of between 10-12 times daily and a duration of 10-12 minutes on each breast. Mother breastfed their infants whenever they cried at no specific time or anytime.

The study again concludes that maternity leave policy of the employers in Ghana supports exclusive breastfeeding and therefore early return to work after maternity leave is not a contributor to early termination or cessation of breastfeeding of 0 – 6 months old children. However, employers do not provide flexible time for working and breastfeeding of children due to the fact that there are no favourable policies on exclusive breastfeeding at their workplaces. Finally, it concluded that humiliation associated with breastfeeding in public and work places lead mothers to look for an alternative to breastfeeding their children was absolutely false. And that it does not serve as a limit/inhibit the pattern (rate, duration and time) of breastfeeding their children.

Breastfeeding in the day is one of the crucial things in a baby's life but employers do not allow the mothers to breastfeed during work time. Meanwhile these workplaces have no private rooms (not a restroom or lunch room) at the workplace for the lactating mothers to breastfeed their children. It was also concluded that employers have failed to provide information regarding breastfeeding options for lactating mothers upon return to work after the maternity leave and have no written policies for lactating mothers for breastfeeding or pumping breast milk.

### **5.3 Recommendations of the Study**

The following recommendations were made based on the findings and conclusions of the study for working mothers in Mampong Ashanti.

1. Working mothers should be encouraged to continue with the type, rate and duration (pattern) of breastfeeding due to the benefits associated with it according to the World Health Organization.
2. Employers“ should design favourable working policies that allow exclusive breastfeeding at their workplaces.
3. Employers should create private rooms or job-designated place for breastfeeding and allow lactating mothers some amount of flexible time at the work place for breastfeeding. They should also be offered lighter jobs as compared to their colleagues who are not breastfeeding.
4. Employers should endeavor to provide breastfeeding counselling services to working mothers to encourage them breastfeed their children regularly.
5. Government should amend legislation promoting female workers breastfeeding rights and institute means for amending it in accordance with the international labour laws.
6. The amendment should factor the expansion of time for maternity leave

#### **5.4 Suggestions for Further Research**

Based on the findings of this study, the researcher recommends that further studies be done in the following areas;

- i. The effect of employers' relationship and attitudinal changes to activities of mothers breastfeeding from 0-6 months old babies.
- ii. Further research could be done to investigate the influence of organizational climate on formal employment of mothers breastfeeding from 0-6 months old infants.



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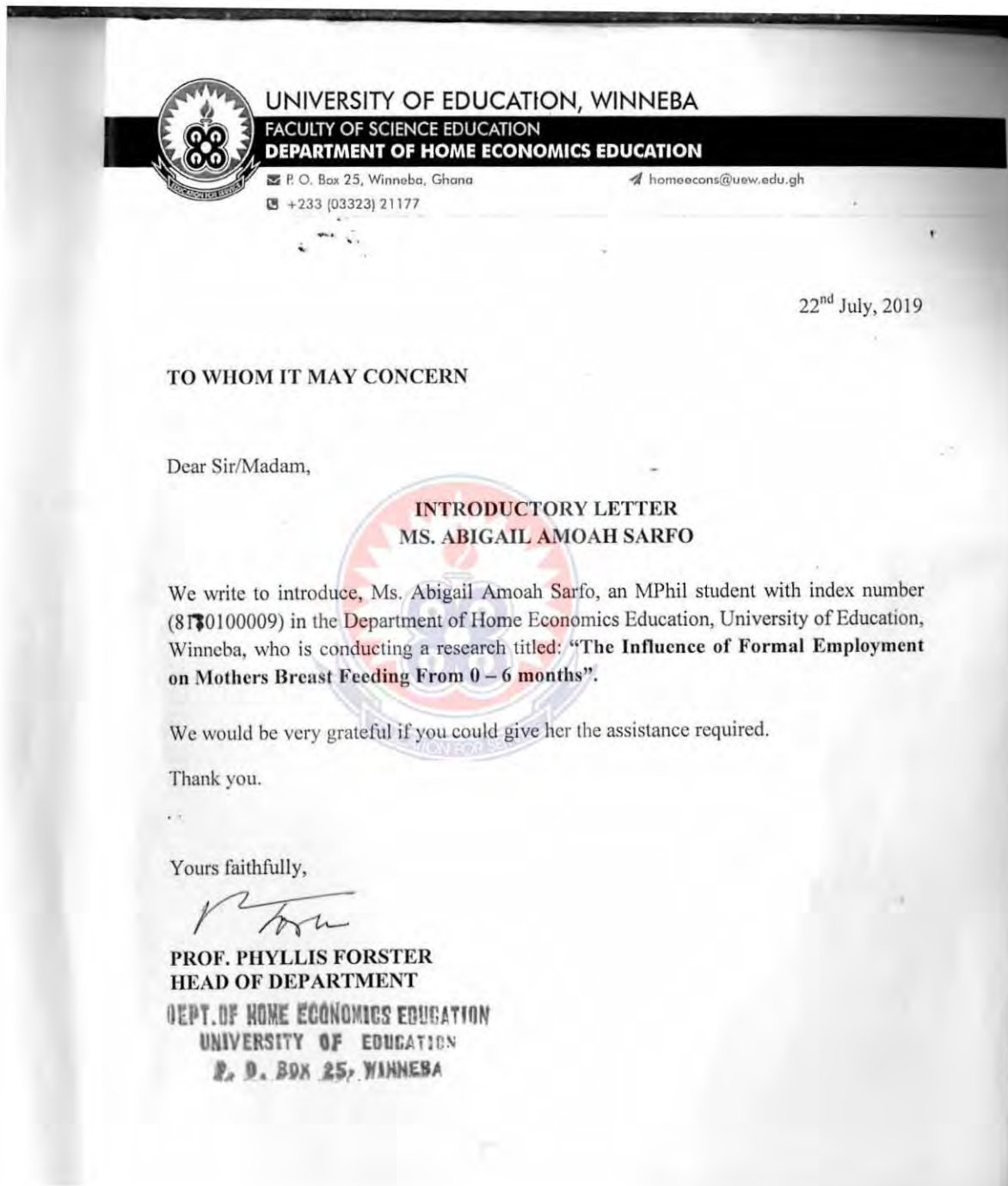




## APPENDICES

### APPENDIX A

#### Introductory Letter



## APPENDIX B

### Questionnaire for Working Mothers Breastfeeding 0-6 Months Infants

#### Introduction

This questionnaire is designed to examine the influence of formal work on breast feeding patterns of working mothers breastfeeding 0-6 months old children in the Ashanti Mampong. The information is being sought through this medium is for research purpose only. You are kindly requested to read through the items and respond to them as honest and objective as possible. Every information provided shall be treated as confidential and private. Besides, your anonymity is assured. Thank you.

#### SECTION A: DEMOGRAPHIC CHARACTERISTICS

**Instruction:** Please fill in the needed information by ticking like this (✓) in the appropriate box [ ]

1. How old are you?

Below 15 [ ] 15-19 [ ] 20-24 [ ] 25-29 [ ]

30-34 [ ] 35-39 [ ] 40-44 [ ] 45-49 [ ]

30-35

2. What is the highest level of education you have completed?

Primary [ ] Junior high school [ ] Senior high school [ ] College [ ]

University [ ] Other [ ]

3. In which sector do you work?

Government/public sector [ ] Private sector [ ]

4. How are you employed outside the home?

Full-time employed [ ] Part-time employed [ ]

5. How many hours do you work per day?

4 hours per day [ ] 5 hours per day [ ] 6 hours per day [ ]

7 hours per day [ ] 8 hours per day [ ] other [ ]

6. Do you engage in shift work? Yes [ ] No [ ]

**SECTION B: BREASTFEEDING PATTERN**

**Instruction:** Please fill in the needed information by ticking like this (✓) in the appropriate box [ ]

7. Do you practice exclusive breastfeeding of your 0-6 months old child? Yes [ ]  
No [ ]

8. How many times do you breastfeed your 0-6 months old child in a day?

< 3 times [ ]

3 times [ ]

4-6 times [ ]

7-9 times [ ]

10-12 times [ ]

Others (Specify).....

9. How long do you continuously breastfeed your child at each feeding time?

< 3 minutes [ ]

3 minutes [ ]

4-6 minutes [ ]

7-9 minutes [ ]

10-12 minutes [ ]

Others (Specify).....

10. At what time do you usually breastfeed your 0-6 months old child at each feeding time?

12:00 - 05:00 am [ ] 06:00-08:00 am [ ] 09:00 am - 12:00 noon [ ]

1:00 - 3:00 pm [ ] 4:00 - 6:00 pm [ ] 7:00 - 8:00 pm [ ]

9:00 - 11:00 pm [ ] Any time [ ]

11. What prompts you to breastfeed your child?

On demand/request whenever baby cries [ ]

Whenever baby wakes up from sleeps [ ]

On hourly basis [ ]

Others (Specify).....

## SECTION C: INFLUENCE OF WORK CULTURES ON BREASTFEEDING

### PATTERN OF MOTHERS

**Instruction:** Please provide responses to the items that follow by ticking (✓) or writing the response that best suits your opinion. Use the Likert-scale below to answer questions 12 - 25:

**Key:** 4 = Strongly Agree (SA); 3= Agree (A); 2 = Disagree (D); 1= Strongly Disagree (SD)

STATEMENTS	SA	A	D	SD
12. Maternity leave policy of my employer supports exclusive breastfeeding				
13. Returning to work shortly after a childbirth and maternity leave deters me from exclusive breastfeeding for the first 0-6 months				
14. Early return to work after maternity leave is a contributor to the early termination/cessation of breastfeeding of my 0-6 months old child				
14. My employer/workplace provides flexible time for working and breastfeed my child				
16. I do exclusive breastfeeding at the workplace because my employer has breastfeeding policy for us (breastfeeding mothers)				
17. I discontinue (stop, cease) exclusive breastfeeding of my child at the workplace because my employer has no breastfeeding policy				
18. Absence and/or unfavourable breastfeeding policy (no breastfeeding break) at my work place limit the rate (number of times) I breastfeed my child.				
19. Absence and/or unfavourable breastfeeding policy at my work place limit the duration (how long) I breastfeed my child.				
20. Absence and/or unfavourable breastfeeding policy at my work place affect the pattern of breastfeeding my child.				
21. Fear of job insecurity lead to early cessation of				

breastfeeding of my child				
22. Working on full-time as a breastfeeding mother limit the number of times and how long I breastfeed my child.				
23. Working on part-time as a breastfeeding mother does not limit the number of times, how long and pattern of breastfeeding my child.				
24. Working on shift as a breastfeeding mother does not inhibit or limit the number of times, how long and pattern of breastfeeding my child				
25. Humiliation associated with breastfeeding in public and workplaces lead mothers to look for an alternative to breastfeeding				

#### SECTION D: CHALLENGES FACING LACTATING MOTHERS AT THEIR WORK PLACES

**Instruction:** Please, provide responses to the items that follow by ticking (✓) or writing the response that best suits your opinion. Use the Likert-scale below to answer questions 26 - 38

**Key:** 4 = Strongly Agree (SA); 3= Agree (A); 2 = Disagree (D); 1= Strongly Disagree (SD)

CHALLENGES	RESPONSE			
	SA	A	D	SD
26. My employer does not allow us (breastfeeding mothers) to breastfeed during work time				
27. Employer does not provide us (breastfeeding mothers) with flexible time at the work place to express or pump breast milk				
28. There is no separate or private room (not a restroom or lunchroom) at workplace for us (working mothers) to express breast milk				
29. Employer does not provide us (working mothers) adequate maternity leave (paid and/or unpaid time off)				
30. Employer does not offer task adjustment or lighter job to us (working mothers) during lactation period				
31. Employer does not provide information regarding breastfeeding options for us (working mothers) upon return to				

work (after maternity leave)				
32. Employer does not provide information about combining work and breastfeeding				
33. Employer has written policies for us (lactating mothers) for breastfeeding or pumping breast milk.				
34. My co-workers do not change their break times with me so that I could breastfeed or pump breast milk.				
35. My co-workers do not cover my job duties if I needed time for breastfeeding or pumping breast milk.				
36. My breaks are not frequent enough for breastfeeding or pumping breast milk.				
37. My breaks are long enough for breastfeeding or pumping breast milk.				
38. My employer/workplace has no job-designated place for breastfeeding mothers to breastfeed or pump milk during the workday.				

**SECTION E: MEASURES TO IMPROVE PATTERN OF BREASTFEEDING  
AMONG WORKING MOTHERS**

**Instruction:** Please, provide responses to the items that follow by ticking (✓) or writing the response that best suits your opinion. Use the Likert-scale below to answer questions 39 - 48:

**Key:** 4 = Strongly Agree (SA); 3= Agree (A); 2 = Disagree (D); 1= Strongly Disagree (SD)

MEASURES	RESPONSE			
	SA	A	D	SD
39. Employer should provide, prenatal/ postpartum services such as separate rooms for us breastfeeding mothers				
40. Employer should provide flexible time to lactating mothers				
41. Employer should provide part-time time and lighter job to working and lactating mothers				

42. Employer should provide refrigerator for breast milk storage				
43. Employer should provide breaks for pumping or breastfeeding babies				
44. Employer should provide breastfeeding counselling services to working and lactating mothers				
45. Employer should have specific written policies addressing workplace breastfeeding support				
46. Employer should provide longer maternity leave and longer breastfeeding duration to lactating mothers				
47. Employer should provide reasonable break time for an lactating mothers to express breast milk for babies				
48. Governments should pass a legislation promoting the female workers breastfeeding rights and instituting means for implementation in accordance with international labour laws				



## APPENDIX C

### Focus Group Discussion Questions for Mothers Breastfeeding From 0-6 Months Infants

#### Introduction

This discussion is meant to solicit your views on the influence of formal employment on breast feeding pattern of working mothers breastfeeding 0-6 months old children in the Ashanti Mampong. I seek your concerns and involvement in providing relevant information on the subject. Your responses will be beneficial for this study which will impact positively on working mothers breastfeeding practices for their children. Every information provided on this questionnaire will be strictly kept confidential for academic purposes and no part of it will be exposed to a third party.

1. Biographic information.
2. How many times in a day do you breastfeed your 0-6 months old baby at work or home?
3. How long (duration) do you continuously breastfeed your 0-6 months old baby at work or home during each feeding time?
4. At what times or periods of the day or night do you usually breastfeed your 0-6 months old child?
5. When do you breastfeed your 0-6 months old child (feeding pattern)?
6. How does work cultures influence the rate, duration, and patterns of breastfeeding 0-6 months old children at the work place or home?
7. In your view, as a working mother, what makes it hard for you to continue breastfeeding your 0-6 months old baby at work or home?
8. What challenges do you face at the workplace or home in breastfeeding your 0-6 months old baby at work or home?

In your view, what measures do you think employers should put in place at workplaces to improve the pattern of breastfeeding among working and nursing/lactating mothers?

**THANK YOU!!!**