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SOCIAL DETERMINANTS OF EXCLUSIVE BREASTFEEDING AMONG WORKING MOTHERS IN DEVELOPING ECONOMY: A STUDY OF KOGI STATE UNIVERSITY, ANYIGBA NIGERIA

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ABSTRACT

The study investigated social determinants of Exclusive Breastfeeding among working mothers in developing economies using Kogi State University, Anyigba as area of study. The specific objectives of the study includes to examine the benefits of exclusive breastfeeding to both mother and infants, an evaluation of the challenges and determinants of exclusive breastfeeding among working mothers in Kogi State University, to ascertain the socio-cultural perception/impact associated with exclusive breastfeeding among working mothers in Kogi State University and to assess the effectiveness of the practice of exclusive breastfeeding among working mothers in Kogi State University. The theory of plan behaviour was adopted to buttress the study. The study adopted survey research design in which 236 was sampled using Yaro Tamane statistical table from the total population of 576, and then purposive sampling and systematic simple random sampling were employed in the administration of the research instruments. The hypotheses of the study were tested using Chi square and Multi Linear Regression. The study found out that exclusive breastfeeding is of great benefit to both mothers and infants as it helps in the physical and mental development of infants, helping the mother to quickly return to her normal shape after child birth and helps the infants to gain more weight etc. The study also identified work schedule, family influence, education from antenatal services among others as sociocultural and economic determinants of exclusive breastfeeding among working mothers in Kogi State University, Anyigba. The study further revealed evil eyes of the public, taboo, bad omen i.e under curse and making the breast saggy as some of the cultural perceptions associated with exclusive breastfeeding. The study concluded that irrespective of the knowledge of the benefits of exclusive breastfeeding, the practice has been ineffective among working mothers in Kogi State University Anyigba. In light of the findings, the research recommended that the school management should increase the period of maternity leaves from at least 6 months to a year, the health workers should lead by example and finally there should be social support groups to implement the practice even at the community level.

KEYWORDS:

Exclusive Breastfeeding, Working Mothers, Social Determinants, Developing Economy, Nigeria.



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Introduction

Breastfeeding is nature's way of providing all the essential nutrients for the healthy growth and development of an infant in an easily digestible and absorbable form (World Health Organization, 2019). The introduction of other foods during the first six months not only predisposes infant to infections, but also leads to problem of malnutrition (Clark, 2003, Rathaur, 2018). Breastfeeding is the act of feeding a child with breast milk directly from the breast and a physiological process by which all mammals feed their infants. It is a cultural practice beneficial to health (Metiboba, 2012).

Exclusive breastfeeding is defined by WHO as practice of feeding only on breast milk and allows the baby to receive vitamins, minerals or medicines, but water, breast milk substitutes, other liquids and solid foods are excluded. The practice of exclusive breastfeeding depends on many factors. A thorough knowledge of these factors is very essential because it identifies areas of improvement for the promotion of exclusive breastfeeding. Many documents establish the benefits associated with exclusive breastfeeding (Uchendu, 2009, WHO, Geneva, 2003), asserted that exclusive breastfeeding of babies for six months as recommended by Baby Friendly Hospital Initiative (BFHI) remains a well-recognized childhood survival strategy of great benefit in reducing infant and under-five mortality rates, achieving optimal health and development, followed by complementary foods while continuing breastfeeding for up to two years or beyond (WHO, Geneva, (2003). Even though there are global recommendations regarding the best practices of breastfeeding, the rate of adherence to exclusive breastfeeding is reported to be declining globally

Breastfeeding is perhaps the oldest practice in human history. It is the healthiest, simplest and least expensive means of meeting the nutritional needs of new-born and infants. Breast milk contains all essential nutrients – carbohydrates, essential fats, proteins, minerals, and immunological factors – required for the optimal growth and development of infants; hence, it is the ideal meal for them (Stube, 2013). Any substitution can result in significant adverse consequences for both mother and baby.

The knowledge of breastfeeding is a social phenomenon related to the activities and attitude which are under the control of norms, standards of social practices and expectation. They constitute activities which provide support for the mothers' choice to breastfeeding based on the behaviour that is healthiest for her and her new born, thereby giving rise to what is commonly referred to as exclusive breastfeeding and supplementary breastfeeding practice (Foster, 2006).

The World Health Organization, (WHO) recommend at least 2 years of breastfeeding for all infants (WHO 2009). The American Academy of Paediatrics (AAP) and the American Academy of Family Physicians (AAFP) similarly recommend exclusive breastfeeding for the first 6 months of life, continuing at least through the infant's first birthday, and as long thereafter as is mutually desired. Also, American College of Obstetricians and Gynaecologists, strongly recommend breastfeeding exclusively (no formula, Juice or water) for 6 months. And breastfeeding for a year at least with other foods which should be started at 6 months of age, such as vegetables, grains, fruits, proteins.

The WHO recommends exclusive breastfeeding up to 6 months of age, with continued breastfeeding along with appropriate complementary feeds up to 2 years of age or beyond (WHO, 2001). The complementary feeding should be initiated in a child, no later than 26 weeks and not before 17 weeks of age (Wang 2019). The benefits of exclusive breastfeeding and proper weaning in the growth, development, and prevention of illness in young children are undisputable. The frequency, timing, and duration of breastfeeding, as well as the frequency, type, and amount of complementary feeding, have

been crucial aspects of infant feeding practice. Better breastfeeding practices were shown to have a significant impact on the survival of infants in a limited resource setting of southern Nepal (Mullany 2008).

Moreover, feeding honey as pre-lacteal feed and animal milk or formula as a substitute for human milk, pose a risk to these vulnerable infants. These other feeds might increase the risk of infection in the infants; by damaging the immature gut wall of the infants and making it more susceptible to infection transmission. There is also an increased risk of infection if the water used to prepare the feed is unsafe, particularly in low resource settings (Williams, 2017). As per Nepal Demographic Health Survey 2016, infant and young child feeding practices are sub-optimal, with about 65% exclusive breastfed under 6 months and about 55% colostrum fed within an hour of birth. Only 41% of children aged 4–5 months were exclusively breastfed compared to 80% in 0–1 months and 72% in 2–3 months. However, all infants had received at least some breast milk by 4–5 months of age. In addition to breast milk, 13.7% received water, 4.7% received non-milk liquid, 11.5% received non-human milk or formula milk, and 29.2% received other semi-solid or solid feed (MOH/Nepal, 2017). Pre lacteal feeding, withholding of colostrum, and being a first-time mother were associated with a significantly higher rate of partial breastfeeding in a study done in eight countries, including Nepal (Patil, 2015). Thus, there is a room for improvement in reducing partial breastfeeding and sustaining exclusive breastfeeding until the recommended 6 months of age. This needs a better understanding of breastfeeding pattern and determinants of partial breastfeeding in the context of Nepal.

Breastfeeding behaviours are routinely assessed in worldwide capacities, and the World Health Organization (WHO) European Region has the lowest rates of exclusive breastfeeding, with less than 25% of infants exclusively breastfed within the first six months of life (WHO, 2015). Despite breastfeeding rates being reported among many European countries, breastfeeding information within Italy specifically is not well documented (Lauria, 2016). Available statistics report breastfeeding rates in Italy rising since the early 2000s, increasing from 81.1% in 2000 to 85.5% in 2013 (Italian National Institute of Statistics, 2013). Similarly, average breastfeeding duration rose from 6.2 months in 2000 to 8.3 months in 2013 (Italian National Institute of Statistics, 2013), aligning with professional recommendations (WHO, 2017).

In Nigeria, almost all children are breastfed. However, the rate of exclusive breastfeeding has improved from 17% in 2013 to 29% in 2018 (National Population Commission 2018). The rate of breastfeeding initiation within the first hour of delivery is equally low (38%). These low rates of exclusive breastfeeding practice possibly contribute to the high burden of neonatal and infant mortality in the country. Only 29% of Nigerian babies are exclusively breastfed compared to Ghana's 63%. It prevents pneumonia and diarrhea and reduces the chances of neonates dying. According to UNICEF and WHO, “babies who are breastfed are 14 times less likely to die than those who are not fed with breast milk” (Mar 11, 2018). Evidence linking inappropriate breastfeeding practices with child morbidity and mortality lends credence to this position (Bisi-Onyiaechi, 2017). It is against this backdrop that this study examined social determinants of exclusive breastfeeding among working mothers in Kogi State University, Anyigba.

1.2 Statement of Problem

Exclusive breastfeeding rate is very low in Nigeria and fall short of the recommendation of 90% coverage by the World Health Organization. Nursing mothers and other members of the society still

have some difficulties which prevent them from breastfeeding their infants especially when it comes to breastfeeding exclusively (Agho, 2009).

In spite of its countless benefits, many efforts to promote exclusive breastfeeding (EBF) have yielded less than desired outcomes. This may be related to the challenges mothers encounter when breastfeeding. Exclusive breastfeeding challenges occur at the maternal, infant, family, healthcare system at community and national level. They include but not limited to cracked or sore nipples, breast engorgement (Quresh, 2011), insufficient breast milk production (Redshew, 2012), disapproval and discomfort of breastfeeding in public (Boyer, 2012), insufficient breastfeeding support from society and healthcare providers (Andrew, et al 2011), short maternity leave periods (Bhutta, 2011), difficulties associated with combining breastfeeding and other maternal responsibilities (Ludlow, 2012), and emotional stress (Dewey, 2001). A number of variables have also been noted in other literatures to predict EBF practices. Among them are infant's age (Agho, 2011), maternal age, marital status (Kimani-Muvage, 2011), formal educational level (Gladzah, 2015), and occupation (Asemahagn, 2016). Arising from the above, this study intends to examine the social determinants of exclusive breastfeeding among working mothers in Kogi State University. Breastfeeding knowledge is a social phenomenon related to the activities and attitude which are under the control of norms and standards of social practices and expectation, they constitute activities which provide support for the mothers' choice to breastfeed exclusively based on the behaviour that is healthiest for her and her new born, giving rise to what is commonly referred to as exclusive breastfeeding and supplementary breastfeeding practice (Foster, 2006).

Exclusive breastfeeding challenges occur at the maternal, infant, family, healthcare system at community and national level. The challenges to the practice of EBF include: cracked or sore nipples, breast engorgement (Quresh, 2011), insufficient breast milk production (Redshew, 2012), disapproval and discomfort of breastfeeding in public (Boyer, 2012), insufficient breastfeeding support from society and healthcare providers (Andrew, et al 2011), short maternity leave periods (Bhutta, 2011), difficulties associated with combining breastfeeding and other maternal responsibilities (Ludlow, 2012), and emotional stress (Dewey, 2001). A number of variables have also been noted in other literatures as the practice of exclusive breastfeeding in Nigeria has been topical. Most of the studies done have concentrated on experiences and attitudinal responses to the practice by nursing mothers (Agunbiade & Ogunleye, 2012, Dudu et al., 2016; Ekanem et al., 2012; Ibe et al., 2016; Oluwatosin et al., 2016). In all of these studies, the link between sociocultural factors that militate against achieving commendable compliance rate and the need for social work intervention is lacking and that is the gap that this current study sets out to fill. In Nigeria, exclusive breastfeeding among working mothers is a burden with enormous challenges and issues ranging among others from maternal, infant, family, healthcare system both at community and national levels. These socio-cultural dynamics may not be different globally. Arising from the above, this study examined the social determinants of exclusive breastfeeding among working mothers in Kogi State University, Anyigba.

1.3 Research Questions

The study will focus on providing answers to the following research questions:

- i. What is the level of knowledge and understanding of exclusive breastfeeding among working mothers in Kogi State University?
- ii. What are the benefits of exclusive breastfeeding to both mother and child?
- iii. What are the challenges of exclusive breastfeeding among working mothers in Kogi State University?

- iv. What are the socio-cultural perception associated with exclusive breastfeeding among working mothers in Kogi State University?
- v. How effective is exclusive breastfeeding among working mothers in Kogi State University, Anyigba?

1.4 Aim and Objectives of the Study

The general aim of this study is to examine the social determinant of Exclusive Breastfeeding among working mothers in developing economies using Kogi State University, Anyigba as area of study. The study sought to achieve the following specific objectives:

- i. To assess the level of knowledge and understanding of exclusive breastfeeding among working mothers in Kogi State University.
- ii. To examine the benefits of exclusive breastfeeding to both mother and child.
- iii. To evaluate the challenges of exclusive breastfeeding among working mothers in Kogi State University.
- iv. To ascertain the socio-cultural perception/impact associated with exclusive breastfeeding among working mothers in Kogi State University.
- v. To assess the effectiveness of exclusive breastfeeding among working mothers in Kogi State University.

1.5 Research Hypotheses

In order to enable the researcher ascertain the relationship between the variables (exclusive breastfeeding and its social determinants) involved in this study, the following hypotheses were formulated and tested:

Hypothesis One

Ho: There is no significant relationship between exclusive breastfeeding and mother quick recovery after child birth.

Hypothesis Two

Ho: Sociocultural and economic factors such as family influence, breast milk production, work schedule and education received during antenatal visit cannot significantly influence the practice of Exclusive Breastfeeding among working mothers in Kogi State University, Anyigba.

1.6 Scope of the Study

This study investigated the social determinants of exclusive breastfeeding among working mothers in Nigeria, using Kogi State University as study area. It covered the challenges and issues affecting the practice of exclusive breastfeeding and the benefits of the practices especially among the working mothers in the study area.

Exclusive breastfeeding rate is very low in Nigeria (29%) and fall short of the recommendation of 90% coverage by the World Health Organization. Prompted by this, this study wants to examine the rate of exclusive breastfeeding in Kogi State University with interest but not limited to social determinants factors that can influence exclusive breastfeeding among working mothers.

1.7 Significance of the Study

The significance of this study lies in the fact that the findings provided a current perceptual database that will inform all of us and more importantly the policy makers on the feelings and views of the working mothers about exclusive breastfeeding so that appropriate alternatives to motivate the indulgence of exclusive breastfeeding and its support would be developed for working nursing mothers and the populace of Nigeria.

WHO recommendation of 90% coverage of exclusive breastfeeding in Nigeria is still very far below this recommendation. Interestingly, this study is of immense help to management of Kogi State University, Anyigba and other categories of workers in the University as it enlightens them about the perceptions, benefits and practice of exclusive breastfeeding. Finally, the study is a source of fundamental reference material to future researchers that conduct research in this area and thereby contributing to the body of knowledge.

2.0 Literature Review

2.1 Conceptual Reviews

This section explains the concepts used in the study as follows:

2.1.1 The Concept of Breastfeeding

Breastfeeding, also known as nursing, is the act of breast milk transference from the mother to the infant. It improves motor and mental development in babies. Breastfeeding satisfies baby's emotional needs and it increases bonding between mother and infant and it is considered to be physiologically, biochemically, psychologically and immunologically important. The components of human milk offer the new-born robust protection against infections (Thu, 2012, Zhang, 2015, Walingo, 2014).

2.1.2 Types of Breastfeeding

Given the importance of breastfeeding, the World Health Organization (WHO) adopted the "Innocent declaration" which emphasizes the need to initiate breastfeeding within the first hour of delivery (Kramer, 2012). The declaration further recommends exclusive breastfeeding for new-born up to the first six months of life, and that breastfeeding should continue for at least two years post-delivery (Kramer, 2012). It equally recommends the introduction of safe, appropriate and adequate complementary foods starting from the age of six months (World Health Organization, 2010). However, the following are the forms or types of breastfeeding practiced.

a. Exclusive Breastfeeding

Exclusive breastfeeding is defined as giving infants only human milk for 6 months without supplementary breastfeeding practice (water or any form of formula fed). Exclusive breastfeeding is also the normative standard for infant feeding. The WHO and UNICEF baby friendly hospital initiative recommends that infants should be exclusively breastfed for the first six months of life to achieve optimal health and development, followed by complementary foods while continuing breastfeeding for up to two years or beyond. Even though there are global recommendations regarding the best practises of breastfeeding, the rate of adherence to breastfeeding is reported to be declining worldwide. (Engebretsen, 2007, UNICEF, 2013).

Feeding on breast milk or expressed breast milk only, excluding water, breast milk substitutes, and other liquids and solid foods. Oral rehydrating solution, vitamin drops, minerals, and medicines may be given.

Breastfeeding improves motor and mental development in babies and protects them against conditions like diabetes (type 1 and 2), asthma, necrotising *enterocolitis*, sudden infant death syndrome (SIDS) and obesity (Eidelman, 2012). In mothers, breastfeeding reduces postpartum bleeding, enhances accelerated involution of the uterus and plays a crucial role in child spacing through lactational amenorrhea (Eidelman, 2012,). Other maternal benefits of breastfeeding include reduced risks of osteoporosis, hip fracture, breast cancer, ovarian cancer, and type 2 diabetes (Eidelman, 2012, Victoria, 2015).

b. Predominant Breastfeeding

This is feeding on breast milk or expressed breast milk with other liquids (including water), semi-solid and solid meals. Oral rehydrating solution, vitamin drops, minerals, and medicines may be given.

c. Complementary Breastfeeding

Here, babies are fed on breast milk or expressed milk or milk from a wet nurse, as well as on solid or semi-solid foods. There is no restriction, anything – food, liquid, non-human milk– may be given.

2.2 Exclusive Breastfeeding among Working Mothers in Nigeria and around the World

Globally, less than 40% of infants below 6 months of age are exclusively breastfed (Cai, 2012). Developing countries report an exclusive breastfeeding prevalence of 36% among infants younger than 6 months (Khamis, 2017). However, there is a much lower prevalence of exclusive breastfeeding among professional working mothers in developing countries.

In 2015, the World Health Organization (WHO) estimated that 5.9 million under 5 year old children died from preventable diseases in Africa (WHO, 2019). Suboptimal breastfeeding is responsible for 96% of deaths among children under 12 months of age (Lauer, 2009). Two of the leading causes of infant and child mortality, namely pneumonia and diarrhea, have been implicated in over 30% of under-five deaths (Black, 2010, UNICEF, 2019). Globally, half of all child deaths due to pneumonia and diarrhea occurred in India, Democratic Republic of Congo, Ethiopia and Nigeria, (Liu, 2012). An infant not exclusively breastfed for 6 months is 15 times more likely to die from pneumonia and diarrhea than exclusively breastfed children (WHO, 2019, United Nation International Children Emergency Fund, UNICEF, 2019). Optimal breastfeeding is the most cost-effective child survival strategy (Sankar, 2015) and has the potential to reduce under-five mortality by 13%. Optimal breastfeeding consists of early initiation within an hour of birth, exclusive breastfeeding from birth to 6 months of life and breastfeeding up to 2 years of age or beyond (WHO, 2019).

According to Stuebe (2013), breastfeeding is perhaps the oldest practice in human history. It is the healthiest, simplest and least expensive means of meeting the nutritional needs of new-borns and infants. Breast milk contains all essential nutrients – carbohydrates, essential fats, proteins, minerals, and immunological factors – required for the optimal growth and development of infants; hence, it is the ideal meal for them. Any substitution can result in significant adverse consequences for both mother and baby.

Breastfeeding behaviours are routinely assessed in worldwide capacities, and the World Health Organization (WHO) European Region has the lowest rates of exclusive breastfeeding, with less than 25% of infants exclusively breastfed within the first six months of life (WHO, 2015). Despite breastfeeding rates being reported among many European countries, breastfeeding information within Italy specifically is not well documented (Lauria, Spinelli, & Grandolfo, 2016).

Breastfeeding is the act of breast milk transference from the mother to the infant (Chantry, 2008). Breastfeeding satisfies baby's emotional needs and it increases bonding between mother and infant.

Also, it is considered to be physiologically, biochemically, psychologically and immunologically important (Singh, 2010). Consequently, several coordinated activities and policies to promote health among women, new-born and infants through breastfeeding have been actively advocated for and promoted. Based on empirical evidences on the benefits of exclusive breastfeeding to the mother, breastfeeding initiation time are sparse and differs across countries, some of these factors such as socio-cultural beliefs, delay in lacto genesis, sub-optimal behaviour of new-born to accept breastfeeding especially in those exposed to labour medication during delivery are frequently associated with the initiation of breastfeeding. However, majority of mothers in and around the world had less than one hour breastfeeding initiation time after delivery (Amir, et al 2007, Orun, 2010),

Environmental and policy level factors serve as major challenges affecting working mothers' ability to practice exclusive breastfeeding. Chief among these factors are inadequate maternity leave duration, and lack of maternity policies and facilities that support breastfeeding at the workplace. For women practicing exclusive breastfeeding, these challenges can result in a surge in anxiety (Ismail, 2012) normally leads to a reduction in breast milk production.

In addition, the unavailability of crèches and nursing rooms at the workplace leads to work-family imbalance that ultimately affects mother and child bonding, which is very crucial at the formative stages of the baby's development (Labbok, 2016).

Similar to other African societies, the breastfeeding culture in Ghana is heavily influenced by family members, friends, society (Aboringo, 2012), and the duration of maternity leave. The Act 57 of the Ghana Labour Law also makes provisions for expectant working mothers to enjoy at least 12 weeks of paid maternity leave in addition to any accumulated annual leave (Gladzah, 2015). Nursing mothers who have an abnormal pregnancy or multiple babies are also entitled to a possible extension of their maternity leave for a minimum duration of two weeks.

2.3 Assessment of the Level of Knowledge and Practice of Exclusive Breastfeeding in Nigeria

In Nigeria, almost all children are breastfed. However, the rate of exclusive breastfeeding is low, 17% in 2013 and 29% in 2018 (National Population Commission of Nigeria, 2018). The rate of breastfeeding initiation within the first hour of delivery is equally low (38%). These low rates of breastfeeding practice possibly contribute to the high burden of neonatal and infant mortality in the country. Evidence linking inappropriate breastfeeding practices with child morbidity and mortality lends credence to this position (Bisi-Onyaeachi, 2017).

Exclusive breastfeeding rate is very low in Nigeria and fall short of the recommendation of 90% coverage by the World Health Organization. Nursing mothers and other members of the society still have some difficulties which prevent them from breastfeeding their infants especially when it comes to breastfeeding exclusively (Agho, 2009). It is against this background that the perceptions of nursing mothers regarding exclusive breastfeeding were sought through in this study.

Kogi State government has frowned at the low inclination of women in the state towards exclusive breastfeeding, saying only 30% breastfeed exclusively for the required 6 months. Mrs Ovayoza Ajaikeye, state project manager, "Save One Million Lives" (SOML) who spoke with Vanguard on the side-line of world Breastfeeding week (August 1 – 7) said some mothers in the state had shunned exclusive breastfeeding and place less importance on breastfeeding their child up to two years as recommended by UNICEF.

She said breastfeeding at work was a problem as the state no longer practice the Mothers Friendly Working Office Scheme, where in the past, mothers were encouraged in their respective offices to breastfed with support of nutritious items for the mother.

Only 54% breastfed their babies up to 22 months in Kogi, 84% breastfeed exclusively for up to 2 months before introducing artificial supplements, while 45% managed to reach 4 months with less than 30% getting to the recommended 6 months.

“More worrisome is the fact that not up to 40% makes adequate provision to feed their wards up to the 2 years recommended by UNICEF”. Mrs Ajakaiye said it’s disheartening that young mothers in the state now felt that their breast is part of their fashion sense and are afraid that breastfeeding their babies will make it sag, and make them less attractive. There is no alternative to exclusive breastfeeding. But mothers in the state are shunning exclusive breastfeeding. Some said the water or milk content is not enough for the baby which is not true.

She called for regular lactation breaks during working hours to accommodate breastfeeding, and a supportive breastfeeding environment including adequate facilities that will enable mothers to continue exclusive breastfeeding for 6 months, followed by age-appropriate complementary breastfeeding (Okogba, 2019).

In spite of its countless benefits, many efforts to promote exclusive breastfeeding (EBF) have yielded less than desired outcomes. This may be related to the challenges mothers encounter when breastfeeding. Exclusive breastfeeding challenges occur at the maternal, infant, family, healthcare system, at community and national level.

2.4 Benefits of Exclusive Breastfeeding on Infants

Evidence from a recent study indicates that breastfeeding is critical to the survival of new-born and infants (Gupta, et al., 2015). An estimated 13% reduction in infant mortality rate can be achieved through the practice of exclusive breastfeeding (Jones, et al 2003). Initiating breastfeeding within the first hour of life could reduce the rate of neonatal mortality by up to 22% (Edmond, et al 2006).

The unique composition of human milk makes it the best for human babies. Moreover, formula feeding raises risk of illness and death by depriving infants of the protection offered by the many essential infection-fighting components of human milk and the nutrients tailored by the mother’s biology to meet the precise needs of her infant. Infants and mothers who practice breastfeeding and more especially, exclusive breastfeeding enjoy some benefits from the act. The society at large equally benefits from the practice of exclusive breastfeeding as increased breast feeding would save health care costs in any developing economy (The Baby Friendly Hospital Initiative, 2010).

Several other beneficial effects – short and long term – have been linked with appropriate breastfeeding practices in babies and their mothers. Reduced incidence of respiratory tract infections, non-specific gastroenteritis, otitis media, atopic dermatitis and childhood leukaemia are some of the benefits of optimal breastfeeding in infants (Eidelman, et al 2012, Stube, 2009).

2.5 Benefits of Exclusive Breastfeeding on Mothers

Meanwhile breastfeeding has been observed to have direct effect on the fertility of the nursing mother, medical evidence indicated that lactation provides a degree of contraceptive protection through the inhibiting of the release of pituitary and ovarian hormones. However, the contraceptive protection of breastfeeding may depend on the frequency and intensity of sucking which appears to be diminishing rapidly with time in Nigeria. The prolactin is responsible for the secretion of milk in the breast which produces delay in ovulation (Odu, et al 2012). This inhibitory effect of protection disrupts the carefully balanced release of pituitary and ovarian hormones required for the ovulation and the resumption of normal menstruation cycles (Gray, et al, 2002). This process is referred to as Lactational Amenorrhea Method (LAM).

Exclusive breastfeeding reduces postpartum bleeding, enhances accelerated involution of the uterus and plays a crucial role in child spacing through lactational amenorrhea (Foster, 2006). Other

maternal benefits of breastfeeding include reduced risks of osteoporosis, hip fracture, breast cancer, ovarian cancer, and type 2 diabetes (Eidelman, et al., 2012, Victoria C.G et' al 2015). Breastfeeding encourages the involution of the uterus and thus the rapid return of uterine womb which helps the mother to regain her natural shape. It promotes an affectionate bond between mother and child. It is economical and it is convenient. (Odu, et al., 2012).

2.6 Challenges of Exclusive Breastfeeding

Exclusive breastfeeding have challenges and issues which are regarded as determining factors to successful EBF are those which occur at the maternal, infant, family, healthcare system, at community and national level (Diji et al., 2017).

The challenges to the practice of EBF include: cracked or sore nipples, breast engorgement (Quresh, 2011), insufficient breast milk production due to delay lactogenesis (Redshew, 2012), disapproval and discomfort of breastfeeding in public (Boyer, 2012), insufficient breastfeeding support from society and healthcare providers (Andrew, 2011), short maternity leave periods (Bhutta, 2011), difficulties associated with combining breastfeeding and other maternal responsibilities (Ludlow, 2012), and emotional stress (Dewey, 2001). A number of variables have also been noted in other literatures to predict EBF practices. Among them are infant's age (Agho, 2011), maternal age, marital status (Kimani-Muvage, 2011), formal educational level (Gladzah, 2015), and occupation (Asemahagn, 2016).

Observation reveals that the idea of women breastfeeding a child for 12 months is now seen as antisocial and primitive. If nursing mothers continue to reduce the incidence and quality of breastfeeding practice it may be dangerous and disastrous to the health of the mother and the child, also it may lead to short birth interval and have an adverse effect on the population (Odu, 2012).

2.7 Major Social Issues and Challenges to Exclusive Breastfeeding Practices in Nigeria

Some of the major social issues of exclusive breastfeeding are as highlighted below:

i. Family Influences on Exclusive Breastfeeding.

Close associates such as grandmothers, co-tenants, and other relatives were found to be people who sometimes challenged mothers on the practice of exclusive breastfeeding. These individuals were widely mentioned in this study with mothers in Upper West Region. Among them, grandmothers were commonly mentioned as posing challenges to mothers' decisions on exclusive breastfeeding. Some grandmothers intentionally give substances such as water to children when bathing them. Their persistent suggestions and demands of giving water and foods to children who are supposed to be exclusively breastfed were worrisome for some mothers. Other determinant factors to exclusive breastfeeding among nursing mothers in general, are as highlighted and explained as follows:

ii. Low Breast Milk Production.

According to Dun-Dary (2016), mothers reported that insufficient breast milk was major challenge that hinders effort towards attaining optimum exclusive breastfeeding especially among mothers in developing countries. Mothers who were unable to meet their children's demands for breast milk found themselves in a state of despair. In some instances, mothers who could not produce enough breast milk had no other choice than to give their children other foods to supplement the insufficient breast milk.

iii. Work Schedule

Further, the findings revealed that work schedules of mothers equally hinder the practice of exclusive breastfeeding. The early return to work by breastfeeding mothers in civil and public services after three months of maternity leave tend to compound exclusive breastfeeding challenges for mothers (Nkrumah, 2016, Dun-Dary, 2016). Aside the early return to work, most institutions or organizations in Ghana for instance, do not have breastfeeding cubicles or rooms as required by law. Again, the location of crèches and where most mothers work are distant. In such circumstances, mothers may be required to express breast milk to be given to children while they are at work (Ghana Health Service. New born care programme, 2017). Although, this approach would be more useful elsewhere, the certainty that children might be given the expressed breast milk in a good condition in the context of Ghana is questionable. Likewise, in busy informal sectors such as trading and farming, mothers encounter challenges that impede the practice of exclusive breastfeeding. Mothers in their hustle and bustle at local trading centres would have to combine uncoordinated activities by attending to clients and at the same time trying to optimally breastfeed their children. As a result, exclusive breastfeeding is breached with early weaning inevitable (Gonah, 2016, Khan, 2008). Hence, mothers have no choice than to introduce complementary foods to their infants.

2.8 Social-cultural Perception Associated with Exclusive Breastfeeding

Breastfeeding also is influenced by race, socioeconomic factors, cultural and educational background of parents. Discarding colostrum and delayed initiation of breastfeeding due to various reasons are still practiced in few communities. Early and unnecessary introduction of top feeding in incorrect dilutions and in unhygienic pattern are also quite prevalent in many communities. The key to successful breastfeeding is continuous vigilance over infant feeding practice in the community for timely interventions, to ensure optimal growth and development in the infant (Sowmini, 2016).

In Nigeria, the common belief around infant feeding among the Yoruba people is that exclusive breastfeeding is beneficial to both infants and mothers, but complementary feeding is essential for babies to adapt to other meals with ease (Lawoyin, et al 2001). The adoption of exclusive breastfeeding is perceived differently by different people of diverse culture, beliefs and ethnic background. In spite of these advocacies and the health benefits associated with exclusive breastfeeding, people's perception has been a hindrance to effective and adoption of exclusive breastfeeding practice in most communities, among such perceptions are:

i. Colostrum (Taboo)

Colostrum is the first breast milk after birth. It is thick in consistency and yellowish in colour, complete in nutrients. It has a balanced diet, medicinal and an immune booster to the new-born.

The Sukunna ethnic group in Korogocho, Tanzania regards colostrum is a taboo and so forbid it given to a new-born. Hence, colostrum is expressed out usually within the first two days after birth and is discarded, thereafter, the new-born can start breast feeding (FGN, Village elders-Korofoch). Other communities discourage it because they felt it is "dirty" since it is thick and yellowish in colour, different from the watery normal breast milk.

ii. Bad Omen (under curse)

The kuo and Luhya ethnic group strongly believed that mother's breast milk becomes unclean if she indulges in extramarital affairs. Therefore, such mothers are not allowed to breast feed their new-born babies, as babies breastfed under this condition is considered a cursed child since this is an omen.

iii. Evil Eyes in Public

One of the socio-cultural clauses in achieving exclusive breastfeeding is public breastfeeding in public. There is this belief in some communities that public breastfeeding could attract 'evil eyes' from people who the community classified as witchcraft. A situation of malevolent glare resulting in breast milk drying, breast cancer and breast sores in mothers. Therefore, nursing mothers are customarily not encouraged for exclusive breastfeeding.

iv. Gender Sucking Tendencies

Breastfeeding duration among male and female babies tends to differ. Male babies are believed to suck a lot more and so mothers don't breastfeed them longer as compare to female babies. This socio-cultural belief tends to discourage exclusive breastfeeding for male babies in some communities because mothers complain of dizziness after breastfeeding male child, hence early introduction of complimentary food.

v. Sag Breast

In most communities, young mothers belief that breastfeeding cause breast sagging which make them appear unattractive to their husbands. The more they breastfeed exclusively, the more their breast becomes fatten (sagged) and so they get discourage from exclusive breastfeeding, as a result, children are wined earlier (probably before their first birthday) just to prevent breast sagging.

2.9 Issues with Non-Breastfeeding

In spite of its countless benefits, many efforts to promote exclusive breastfeeding (EBF) have yielded less than desired outcomes. This may be related to the challenges mothers encounter when breastfeeding. The following are some of the health implications with practice of non-breastfeeding on both the mother and child.

1. Maternal Weight

The Cochrane Review reports that exclusive breastfeeding for six months helps the mother lose weight (Spatz, et al 2011). In studies where weight loss was measured and not estimated, women who had a shorter duration of breastfeeding did not lose as much weight or fat stores at 3 to 6 months postpartum as those who breastfed longer (Stube, 2009).

2. Blood Pressure

Not breastfeeding is associated with increases in short- and long-term blood pressure. Blood pressure fell significantly by 8.8 and 7.7 mm Hg (systolic and diastolic blood pressure, respectively) with breastfeeding 2 days after birth and at 1, 10, and 25 weeks, falling within the first 10 minutes and continuing for at least 60 minutes. Basal blood pressure decreased through 6 months of breastfeeding (Spatz, et al, 2011).

3. Postpartum Depression

Breastfeeding is consistently associated with a decrease in depressive symptomatology and lower mean depression scores than bottle-feeding mothers. In addition studies suggest that mothers with depressive symptomatology were significantly more likely to discontinue breastfeeding earlier than mothers without symptoms (Mbada, et al 2014). While non- breastfeeding is associated with an increased risk of postpartum depression. A qualitative systematic review to examine the relationship between postpartum depression and infant feeding found seven studies demonstrating an association between bottle feeding and higher levels of depressive symptomatology. Based on prospective cohort

studies there is an association between not breastfeeding or short duration of breastfeeding and postpartum depression.

4. Sleep

Exclusive breastfeeding, including night time feedings, has been reported to improve sleep. Mothers who supplement with formula at night, even when the father takes over the night time feedings to allow the mother to get more sleep, have been found to sleep 40-45 minutes less and to have more sleep disturbances than mothers who exclusively breastfeed their infants including overnight feedings. Non-breastfeeding is associated with increased sleep disturbances and overall less sleep. Bedding in, in order to facilitate breastfeeding initiation in the initial postpartum period has also shown to have no adverse effect on the amount of sleep that both baby and mother receive (Odu, et al 2012).

5. Breast Cancer

Some studies have suggested that breastfeeding reduces breast cancer risk, but evidence has been mixed.

Observational studies relating lactation and breast cancer among postmenopausal women have largely failed to identify an association. Reports from case-control studies suggest a modest inverse association between breastfeeding and premenopausal breast cancer risk, but findings have been inconsistent and limited by potential recall bias (Stube, 2009). Longitudinal studies have similarly produced conflicting results. A meta-analysis of 47 studies found that each year of breastfeeding was associated with a 4.3% reduction in risk of invasive breast cancer (Collaborative Group on Hormonal Factors in Breast Cancer, 2002). In the Nurses' Health Study II, the association was stronger among women with a first-degree relative with breast cancer (Stube, 2009). In this group, never breastfeeding was associated with a 2.4-fold increase in incidence of premenopausal breast cancer, compared with ever having breastfed.

6. Ovarian Cancer

In case-control studies, never breastfeeding is associated with a 1.3-fold higher risk of ovarian cancer, compared with ever having breastfed. Danforth and colleagues prospectively examined risk of ovarian cancer in the Nurses' Health Studies and found that women who had never breastfed faced a 1.5-fold risk of ovarian cancer, compared with women who breastfed for greater than 18 months (Spatz, et al., 2011).

7. Lactation and Maternal Metabolism

Breastfeeding poses a substantial metabolic burden on mothers, requiring 500 kcal per day to supply milk for an exclusively breastfed infant. This metabolic load may help mobilize weight gained during pregnancy. In addition, breastfeeding is associated with more favourable glucose levels, lipid metabolism, and blood pressure. Epidemiologic studies suggest that these differences may persist after weaning with significant long term benefits for others (Stube, 2009).

At 6 months, exclusively breastfeeding mothers had lost 600 g more than those in the complementary feeding group, suggesting that more intense lactation mobilizes additional adipose stores.

2.10 Theoretical Framework

Theory of planned behaviour is a theory that focuses on cognitive factors influencing behaviour. It was proposed by Icek Ajzen (1985). This started as the theory of Reasoned Action in 1980 to predict individual's intention to engage in behaviour at a specific time and place. It recognizes intention and perceived behavioural control as immediate determinants of behaviour (Fishein, et al 2010). Intention

is influenced by attitude, perceived norm and perceived behavioural control. In application to this study, the knowledge of breastfeeding is a social phenomenon related to the activities and attitude which are under the control of norms, standards of social practices and expectations. They constitute activities which provide support for the mothers' choice to breastfeeding based on the behaviour that is healthiest for her and her new born, thereby giving rise to what is commonly referred to as exclusive breastfeeding and supplementary breastfeeding practice (Foster, 2006)

Attitude refers to the overall evaluation of performing the behaviour. Perceived norm is perceived social pressure to perform or not to perform the behaviour. Perceived behavioural control is the extent to which people believe that they are capable of performing the behaviour and that they have control over its performance.

For example, in determining social factors of exclusive breastfeeding, perceived behavioural control might reflect how people perceive exclusive breastfeeding in terms of family influence, work schedule, socio-cultural (colostrum as taboo, evil eyes in public, gender sucking disparity etc) and poor breast milk production (poor lactogenesis).

Therefore, exclusive breastfeeding involves initiation and maintenance of the behaviour, that is there is need for mothers to accept the responsibility of breastfeeding their baby exclusively and continuing the practice for six months and up to two years, as recommended by WHO with introduction of complimentary food. Postpartum support from family members, workplace (employer and colleagues), cultural beliefs and economic factors can greatly improve and encourage the practice of exclusive breastfeeding among working mothers effectively.

As good as the theory is in the explanation of human behaviour with respect to the practice of exclusive breastfeeding, it is not without its waterloo. For instance, the theory has been criticised for its exclusive focus on rational reasoning, excluding unconscious influences on behaviour (Sheeran, Gollwitzer & Bargh, 2013) and the role of emotions beyond anticipated affective outcomes (Conner, Gaston, Sheeran, & Germain, 2013). Moreover, the static explanatory nature of the Theory of Planned Behaviour does not help to understand the evidenced effects of behaviour on cognitions and future behaviour.

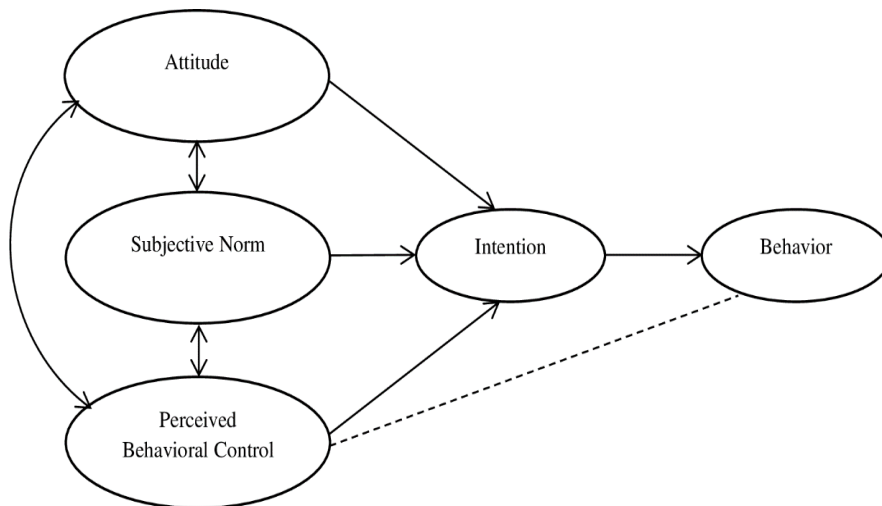


Figure 1. Ajzen, (2019).

2.11 Empirical Reviews

Winifred and Onyinye (2020) examined the socio-cultural drivers and barriers to adoption of exclusive breastfeeding among nursing mothers in rural communities of Imo State, Nigeria. A total number of 210 mothers with children below one year were studied. Eventually only 186 copies of the

questionnaire were found useful. The study revealed that the rate of adoption in the communities was low. The major barriers include: mother's poor nutritional status and the belief that breast milk alone is not sufficient to sustain the baby. It was recommended, among others, intensifying exclusive breastfeeding education and counseling, as well as improving mothers' nutritional status.

Nkemdilim et al., (2018) investigated the attitude to and cultural determinants of exclusive breastfeeding among childbearing mothers in Nsukka urban area of Enugu State, Nigeria. Data from 592 childbearing mothers were collected and analyzed using questionnaire, (SPSS), Chi-square and multiple linear regression. The study found out that attitude such as infant's inability to eat other food after EBF and that male infant should not be exclusively breastfed as well as cultural determinants such as the use of coconut water to loosen intestine and after-birth care were significant with EBF practice. The infant's inability to eat other food after EBF and after-birth care were predictors of EBF on binary logistic regression. Findings suggested the need for government, healthcare and social workers to raise awareness on the risks of complementary feeding and the importance of EBF for the reduction of infant mortality and the achievement of related sustainable goals.

Davis (2020) examined sociocultural factors and the promotion of exclusive breastfeeding in rural Yoruba communities of Osun State, Nigeria. The study conducted 10 focus group discussions among homogeneous groups of grandmothers, pregnant women, lactating mothers, husbands, and community health workers, and a questionnaire survey of 256 third trimester pregnant women was administered. The study revealed that All women in these communities breastfeed their infants on demand, and for up to two years, because breast milk is universally accepted as the best food for babies, and breastfeeding spaces births. Pre lacteal feedings of water, herbal infusions and ritual fluids are the norm, and breast milk is supplemented, from birth, with water and teas. It was also found out that exclusive breastfeeding is considered dangerous to the infant: the baby has an obligatory requirement for supplementary water to quench its thirst and promote its normal development, and for herbal teas which serve as food and medicine. Colostrum was discarded because it is dirty, "like pus", and therefore potentially harmful to the infant, although 24% of the survey sample would give it to their babies. Expressed breast milk is suspect as it can get contaminated, poisoned or bewitched. Complementary foods are introduced as early as two months because of perceived lactation insufficiency. The study further revealed that the commonest supplement was a watery maize porridge of low nutrient density. Breastfeeding can also be dangerous, as toxins and contaminants can be passed to the infant through breast milk.

Magaji and Justin (2015) investigated some factors affecting exclusive breastfeeding (EBF) among mothers in Dustin-ma community of Katsina state, Nigeria. Descriptive survey research design was used in this study. The population of the study was all mothers drawn from eleven political Wards of Dutsin-ma Local Government Area, Katsina State. A sample of 177 mothers was used, using cluster sampling technique. A self-developed questionnaire named EH- QEBF was used, using split-half method with the help of Spearman–Brown Prophecy Formula for reliability (0.76). Frequency counts and percentage were used to organize and present the demographic data of the respondents; t-Test was used to test the two hypotheses which were based on mothers' age and home locations as factors affecting EBF at α level of 0.05. The findings of this study revealed that there is no significant difference in the knowledge, and practice of EBF among mothers based on their age in Dutsin-Ma, community ($P=0.426>0.05$) and ($P=0.452>0.05$) respectively. There is no significant difference in the knowledge of EBF among mothers in Dutsin-Ma community based on their home location ($P=0.286>0.05$). Meanwhile, there is significant difference in the practice of EBF among mothers in Dustin-Ma community based on their home location ($P=0.001<0.05$). Following the findings of this study, it was concluded that young and old mothers did not differ in the knowledge, and practice of EBF in Dutsin-Ma community. They also did not differ in the knowledge of EBF based on their home locations, but they differ in the practice based on their home location. It was therefore recommended

that mothers should be encouraged to control any factor capable of deterring their early initiative of breastfeeding (i.e. after an hour from birth) up to the first six months of their infants' life in exclusion of any other formula even water besides prescribed drugs.

By painstakingly looking at the empirical reviews above, it's obvious that almost all the studies carried out on exclusive breastfeeding were either on rural, semi-rural or urban nursing mothers who experience one sociocultural factors or another in the quest to practice exclusive breastfeeding. There is virtually no study to the best of the researcher's knowledge been carried out among the working mothers who may find it difficult to practice exclusive breastfeeding as a result of their work schedules coupled with other social influences associated with the practice of exclusive breastfeeding, and that is the gap filled by this present study using working mothers in Kogi State University as a point of reference.

3.0 Research Design

This study adopted descriptive survey research design because it gives room for the researcher to administer questionnaire to a large number of respondents.

3.1 Area of the Study

This study was carried out in Kogi State University, Anyigba, Nigeria. The university is located at Anyigba, a sub-urban town in Dekina Local Government Area in the Eastern Senatorial District of Kogi State, Nigeria. The university is on latitude 7.4858° N, 7.1874° E (Google map, 2020).

3.2 Brief History of Kogi State University

Kogi State University formally named as Prince Abubakar Audu University (PAAU) is a state-owned university which was established in 1999 by Late Prince Abubakar Audu, the former governor of the state. Professor S. K. Okwute (Professor of Chemistry) was the pioneer Vice Chancellor (2000-2005), then Professor F. S. Idachaba (OFR), Professor of Agric-Economics, took over between 2005 - 2008 and then Professor I. Isah (Professor of Chemical Pathology), from Ahmadu Bello University, Zaria, took over in October 2008 and then he incumbent Vice Chancellor is Professor Marietu Tenuche.

Kogi State University commenced academic activities in April, 2000 with six faculties: Faculties of Agriculture, Arts and Humanities, Law, Management Sciences, Natural Sciences and Social Sciences. The university added the establishment of Faculty of Medicine with extensive office and laboratory complexes. The Centre for Pre-Degree and Diploma Studies was established under the present University administration to run diploma and pre-degree programmes. Students of the pre-degree programme could gain admission into the degree programme if they are successful in the internal exams and need not write the Post-UTME exams.

The University offers many courses on such topics as law, microbiology, biochemistry, geology (combined engineering and geosciences), physics, mathematics, computer sciences, public administration, human kinetics, industrial chemistry, statistics, business administration, accounting, banking and finance, theatre arts, food, nutrition and home sciences, agricultural engineering, crop production, animal production, soil science, food science and technology, fishery and forestry, Islamic studies, religion and philosophy, English, history and international studies, sociology, mass communication, economics, and chemistry. 98% of the courses offered in the university are accredited by the Nigeria University Commission (NUC).

Although not very popular, the university is one of the best in Africa, with some of its departments being ranked by Nigerian professional and academic bodies as the best in Nigeria. Some few years ago, the Faculty of law was pronounced as the best in Nigeria, and has remained among the best in subsequent years. Also the department of Geology has been rated as one of the best in Africa, alongside Obafemi Awolowo University, and the University of Ibadan.

Despite inadequate funding which is the major challenge of state owned universities compared to federal universities, KSU has been named the university with the best implementation of resources for development by the Knowledge for Impact Foundation.

Although not as popular as its federal counterparts like the University of Lagos, Obafemi Awolowo University, and Ahmadu Bello University, Kogi State University has been named by many multinational corporate bodies as one of Africa's BEST universities based on the exceptional intellectual pedigree of its employed graduates. As at January 2017, the university officially dismembered itself from the Academic Staff Union of Universities: the umbrella body for academic staff members of Nigerian universities. As such, academic programmes have become stable and fast, without the incessant strike actions characteristic of ASUU-member universities (Sahara Reporters, Retrieved 2020).

3.3 Study Population

The population of a study is the total number of individuals or elements to be engaged in a given study. These therefore represent the overall area of the universe which is either finite or infinite (Kolhari, 2014). The population of this research was solely the University female staff within the age of 18-55 years who are either in academic or non-academic, senior or junior staff respectively which as at time of this pre survey have a total of Five Hundred and Seventy Six (576) female working mothers representing 30% of the University staff strength according to the University Registry Department, (2020). These covered the female staff in the eight (8) faculties, works department, potters, University printing press, Senate building, the University clinic, library/laboratory, security unit, and the cleaning department respectively, who are currently breastfeeding or who have ever breastfed in one way or the other.

3.4 Sample Size

Sample of a study is the subset of a given population that is drawn from the population and used for undertaking the study while sample size is the number of items selected from the population to constitute the sample. The sample size of this study was determined using Taro Yamane (1967) sample determination formula; $n = N/1+N(e)^2$

Where;

n = sample size (?)

N = population size (576)

1 = constant

e = sample error (0.05)

Therefore, substituting the above formula

$$n = 576/1+576(0.05)^2$$

$$576/1+576 \times 0.0025$$

$$576/2.44$$

$$236.07$$

$$n = 236$$

Therefore, the sample size for this study was two hundred and thirty Six (236) female working mothers of the University.

3.5 Sampling Techniques

To reduce errors associated with sampling, and ensure fair sharing or equality of chances of been selected in the sample, one hundred and eighteen (118) instruments were allotted to each of the two categories of the population of study (i.e academic female staff who were working mothers and the non-academic female staff who were working mothers) to give us the sample of two hundred and thirty six (236).

Since each category of the population were naturally stratified into different departments, for example, the academic category or section of the University were of eight (8) faculties (i.e Faculty of Arts and Humanities, Agricultural Sciences, Law, Education, Management Sciences, Natural Sciences, Social Sciences and the faculty of Medicine/the University Teaching Hospital) which were subdivided into forty nine (49) departments in all the faculties. While the non-academic section of the University were of eight (8) departments (i.e the Works department, Potters, University printing press, Senate building, University clinic, Library/Laboratory, Security unit, and the Cleaning department); Judgmental sampling, also called purposive sampling or authoritative sampling, which is a non-probability sampling technique in which the sample members are chosen only on the basis of the researcher's knowledge and judgment was employed to select two (2) female lecturers who were working mothers each from the forty (49) departments across the faculties to give a total of 98 respondents, while in-depth interview were conducted with twenty (20) senior female lecturers randomly selected from across the departments using systematic simple random sampling technique to give the total of one hundred and eighteen (118) respondents in all, under the academic section of the University. While under the non-academic section of the University, fourteen (14) female staff who were working mothers were purposively selected each from the eight (8) departments to give a total of One hundred and twelve (112) respondents, and then in-depth interview were conducted with six (6) senior female staff randomly selected from across the departments using systematic simple random sampling technique to give the total of 118 respondents in all.

3.6 Methods of Data Collection

The researchers adopted both quantitative and qualitative method in the collection of data through the use of questionnaire and semi structured interview.

3.7 Sources of Data Collection

Data for this research were sourced from primary and secondary sources. The primary sources among others are; from the institution (university establishment unit) and questionnaire. This questionnaire were structured such that it contained open and closed-ended questions, basically, socio-demographic data, and other substantive concern in the topic of interest (exclusive breastfeeding) from the respondents, taking cognizance of the confidentiality of the respondents. While secondary data are those drawn or generated from journals, documentaries, organizational bodies, magazines and internet based documentaries among others.

3.8 Administration of Data Collection Instrument

The research instruments were distributed by the researcher to the respondents within the University. The researcher was fully aware of the prevailing challenge of illiteracy of some of the respondents, especially in non-academic section who were randomly selected and so an interpreter was engaged,

where necessary for equal, genuine and adequate spread of the data devoid of biasness. Approval letter was equally sought for and gotten from the university to enable us access the staff.

3.9 Validity of the Research Instrument

To make sure that the research instrument applied in this work are valid, the researcher ensured that the instrument measure the concept they are supposed to measure. A proper structuring of the questionnaire and a conduct of a pre-test of every question contained in the questionnaire was carried out to ensure that they are valid.

3.10 Method of Data Analysis

The data collected were analysed using descriptive statistical method through tables, percentages, cross tabulations and charts while the results of the interview were content analyzed. The methods were adopted because it gives a good summary of data in a way that can be easily understood by any reader. Again, to ensure that our results are generally reliable, inferential statistical method was employed to test the hypotheses for the study through Multiple Linear Regression and Friedman Chi-square with the aid of Statistical Package for Social Sciences (SPSS).

4.0 Data Presentation and Analysis

A total of 236 copies of questionnaire were distributed to the respondents out of which 227) copies were properly filled, returned and used. While the remaining nine (9) copies were not returned because some of them (respondents) misplaced the instruments, some considered the filling of the questionnaire an indirect assessment of their weaknesses while others were not on sit by the time the researcher went to retrieve the instruments.

Table 1: Socio-demographic Characteristics of Respondents (Note: 227)

Variable	Category	Frequency	Percentage
Age (in Year)	24 and below	03	01
	25-30	17	08
	31-36	49	22
	37-42	77	34
	43-48	37	16
	49 and above	44	19
Marital Status	Single Mother	23	10
	Married	139	61
	Divorced	12	06
	Separated	16	07
	Widow	37	16
Educational Qualifications	Primary	21	09
	Secondary	93	41
	Tertiary	102	45
	Professional	11	05
Numbers of Children	0-2	59	26
	3-5	99	44
	6 and above	69	30
Category of Staff	Academic	101	44
	Non-academic	126	56

Faculty/Unit	Agricultural Sc.	12	05
	Arts/Humanities	13	06
	Education	13	06
	Law	12	05
	Management	11	05
	Medicine	19	08
	Natural Science	18	08
	Social Sciences	11	05
	Lab/Lib/D-Cent.	12	05
	Printing Press	07	03
	Clinics	19	08
	Porters	10	04
	Security	20	09
	Senate	20	09
	Works	12	05
	Cleaning	18	08

Source: Field Survey, 2023

As shown in table 1, the age distribution of the respondents reveals that 3 representing 1% of the respondents fell within the age of 24 years and below, 17 representing 8% of the respondents were within the age of 25 – 30 years, 49 representing 22% of the respondents were within the range of 31– 36 years of age, 77 representing 34% of the respondents were within the age of 37 – 42 years, while 37 representing 16% were within the age of 43 – 48 years whereas the remaining 44 representing 19% were within the age of 49 above years. The implication of this is that majority of the female staff who were working mothers in Kogi State University were still within their active working age of 37 – 42 years respectively. These findings also implies that majority of the respondents were adults and still far from their age of menopause.

As regard the marital status of the respondents, table 1 also indicates that 23 representing 10% of the respondents were single mothers who either lost their spouse or got married out of wedlock and eventually not married to their proposed partners, 139 representing 61% of the respondents were married to their spouse, 12 representing 6% of the respondents admitted that they either divorced their spouse or their spouse got them divorced, 16 representing 7% of the respondents admitted that they were separated from their spouse perhaps, work brought them here and did not come with their partners. The implication of this is that majority of the female staff who were working mothers in Kogi State University were married to their spouses. This could go in a long way to affect their practice of exclusive breastfeeding because of the husbands’ influential role as breadwinners and decision makers in family matters. Husbands probably give the much needed financial support to promote and sustain EBF till 6 months or otherwise.

With respect to the educational level of the respondents, table 1 further shows that 21 representing 9% of the respondents were holding primary school certificates, 93 representing 41% of the respondents were having secondary school certificates while 102 representing 45% admitted that they were working with tertiary certificates whereas the remaining 11 representing 5% of the respondents were having professional certificates alongside their tertiary certificates. These findings implies that majority of the female staff who were working mothers in Kogi State University were literate that have acquired either tertiary education qualifications be it ND, HND, B.Sc, M.Sc or Ph.Ds across the various departments and units of the University. This was attributed to the high premiums placed on literacy and sound education as qualification to work with the university being a citadel of higher learning.

On the number of children owned by the respondents, table 1 further reveals that 59 representing 26% of the respondents indicated that the number of their children were within the range of 0 – 2, while 99 representing 44% of the respondents admitted that the number of their own children were within the range of 3 – 5, whereas the remaining 69 representing 30% of the respondents submitted that their children were 6 and above in numbers. These findings implies that majority of the female staff who were working mothers in Kogi State University had 3, 4 or 5 children. This was equally attributed to the preferences placed on procreation as the primary motive for getting married.

Regarding the category of respondents in the university, table 1 also indicates that 111 (49%) of the respondents were academic staff while the remaining 116 (51%) of the respondents were within the category of non-academic staff. The implication of this is that most of the female staff who were working mothers in Kogi State University were in the category of non-academic staff. This was expected because the requirements to be recruited under the academic section is higher degree unlike the non-academic section, although there is room for conversion if after acquiring a higher degree a non-academic staff decide to go into the academic sphere.

On the years of working experience in the university, table 1 equally shows that 37 representing 16% of the respondents indicated that they have been working with the University for years ranging between 0 – 5, 71 representing 31% of the respondents admitted that their years of experiences in the University was within 6 – 10 years while 76 representing 34% of the respondents have worked with the University for 11 -15 years whereas the remaining 43 representing 19% of the respondents have worked with the University for over 16 years. These findings implies that majority of the female staff who were working mothers have been working with Kogi State University for 11 – 15 years.

On the job cadre of the respondents, table 1 also reveals that 101 representing 44% indicated the senior staff of the university while the remaining 126 representing 56% of the respondents were of junior staff category respectively. The percentage of the respondents who indicated to be within the junior female staff cadre was higher and it signifies that there were more junior staff who were working mothers in Kogi State University than those of the senior staff.

On the unit or departments that the respondents works with, table 1 indicated that 12 representing 5% of the respondents were in the faculty of Agriculture, 13 representing 6% of the respondents were working in the faculty of Arts and Humanities, 13 representing 6% of the respondents were also working with the faculty of Education, 12 representing 5% of the respondents were working with the faculty of law, 11 representing 5% of the respondents were working with the faculty of Management Sciences, 19 representing 8% of the respondents were working with the faculty of Medicine/the university teaching hospital, 118 representing 8% of the respondents were working with the faculty of Natural Sciences, 11 representing 5% of the respondents were working with the faculty of Social Sciences, 12 representing 5% of the respondents were working with Library/Laboratory unit, 7 representing 3% of the respondents were working with printing press unit, 19 representing 8% of the respondents were working in the university clinic, 110 representing 4% of the respondents were working as potters, 20 representing 9% of the respondents were security officers, 20 representing 9% of the respondents were working in the various units of the senate building, 12 representing 5% of the respondents were working with works department while the remaining 18 representing 8% of the respondents were cleaners in the university respectively. This means that female staff who were working mothers in Kogi State University were more prevalent among the non-academic staff working with the various departments and units.

Research Question 1: What is the level of knowledge and understanding of exclusive breastfeeding among working mothers in Kogi State University?

Table 2: Knowledge and Practice of Exclusive Breastfeeding (Note =227)

Variable	Category	Frequency	Percentage
Ever Breastfed	Yes	221	97
	No	06	03
Knowledge of EBF	Only Breast milk for 3 months.	07	03
	Only breast milk for 6 months.	99	44
	Breast milk complementing with foods within the first 6 months.	63	28
	Breast milk and water for 6 months	58	25
Ever Practiced EBF	Yes	79	35
	No	87	38
	I don't know	61	27
Source of knowledge of EBF	Family	41	18
	Friends	54	23
	Social media	65	29
	Antenatal clinics	67	30

Source: Field Survey, 2023

As shown in table 2, 221 representing 97% of the respondents admitted that they have breastfed an infant (s) while the remaining 6 representing 3% of the respondents indicated that they have not breastfed an infant before. The implication of these findings is that majority of the female staff who were working mothers in Kogi State University were either breastfeeding or have breastfed an infant (s). This also implies that a significant number of the respondents were experienced and knowledgeable enough about the subject of the study. Though the knowledge of Exclusive Breast Feeding (EBF) is not synonymous with its practice in the study area, the fact that 97% of the respondents have been informed of EBF did not guarantee them practicing it.

Table 2 also indicates that 7 representing 3% of the respondents admitted that giving only breast milk for 3 months is exclusive breastfeeding, 99 representing 44% of the respondents claimed that giving only breast milk for 6 months is exclusive breastfeeding, while 63 representing 28% of the respondents indicated that feeding your baby with breast milk and complementary food within the first 6 months is called exclusive breastfeeding whereas the remaining 58 representing 25% of the respondents claimed that feeding your baby with breast milk and water for the first 6 months is what they know to be exclusive breastfeeding. The implication of these findings implies that majority of the female staff who were working mothers in Kogi State University knew the real definition of exclusive breastfeeding which is feeding your baby with only breast milk for 6 months.

Table 2 also reveals that 79 (35%) of the respondents admitted that they were either practicing or have practiced exclusive breastfeeding while 87(38%) of the respondents claimed that they have not practiced exclusive breastfeeding before whereas the remaining 61 (27%) of the respondents claimed that they didn't know whether they have practiced exclusive breastfeeding before or not probably because they didn't take note of it or they don't know what exclusive breastfeeding is all about. This means that most of the female staff who were working mothers in Kogi State University were either practicing or have practiced exclusive breastfeeding consciously or unconsciously.

Table 2 further shows that 41 representing 18% of the respondents got the knowledge of exclusive breastfeeding from their family members, 54 representing 23% of the respondents got the knowledge of exclusive breastfeeding from their friends, 65 representing 29% of the respondents submitted that they got the knowledge of exclusive breastfeeding through social media platform, while the remaining 67 representing 30% of the respondents which is the majority of the respondents got their knowledge of exclusive breastfeeding through antenatal clinic visit. The implication of these findings implies that most of the knowledge about exclusive breastfeeding are acquired through healthcare providers who enlightens the working mothers on the need and benefits of exclusive breastfeeding. The results of the interview revealed that they got their knowledge about exclusive breastfeeding from co-workers and significant others.

The participants of the interview were unanimous in their views which also corroborated the responses on the questionnaire, as they agreed that they were informed about the need and benefits of exclusive breastfeeding but their work schedules inhibit the practice.

Research Question 2: What are the benefits of exclusive breastfeeding to both mother and child?

Table 3: Benefits of Exclusive Breastfeeding to both Mother and Child

Variable	Category	Frequency	Percentage
EBF helps the physical development of infants	Yes	149	65
	No	56	25
	Not sure	22	10
EBF helps infants in gaining weight	Yes	183	81
	No	30	13
	Not sure	14	06
EBF is a natural method of family planning	Yes	113	50
	No	96	42
	Not sure	18	08
EBF reduces cases of postpartum bleeding	Yes	128	56
	No	61	27
	Not sure	38	17
EBF reduces the risk of breast and cervical cancer	Yes	111	49
	No	85	37
	Not sure	31	14
EBF helps mothers to quickly recover and return to her normal shapes after child birth	Yes	119	52
	No	89	40
	Not sure	19	08
EBF creates mother/child bond	Yes	122	54
	No	75	33
	Not sure	30	13

Source: Field Survey, 2023

Table 3 indicates that 149 (65%) of the respondents admitted that they knew that exclusive breastfeeding is beneficial to the physical and mental development of the infants while 56 (25%) of the respondents claimed that they don't know that exclusive breastfeeding is beneficial to the physical and mental development of infants whereas the remaining 22 (10%) of the respondents indicated that they were not sure whether exclusive breastfeeding has any connection with the physical and mental development of infants. These findings implies that most of the female staff who were working mothers in Kogi State University understood that exclusive breastfeeding helps in the physical and mental development of their infant (s).

Table 3 also reveals that 183 representing 81% of the respondents signified that exclusive breastfeeding helped their infants in gaining significant weight while 30 representing 13% of the respondents signified that exclusive breastfeeding doesn't help infants gaining weight whereas the remaining 14 representing 6% of the respondents claimed that they were not sure whether exclusive breastfeeding helped their infants to gain more weight or not. The implication of these findings is that majority of the female staffs who were working mothers in Kogi State University thought and understood that exclusive breastfeeding helped their infants to gain significant weight.

Table 3 further shows that 113 representing 50% of the respondents signified that exclusive breastfeeding created mother-child bond while 96 representing 42% of the respondents indicated in contradiction that breastfeeding exclusively does not create mother-child bond whereas the remaining 18 representing 8% of the respondents admitted that they were not sure whether exclusive breastfeeding creates mother-child bond or not. These finding signifies that exclusive breastfeeding creates mother-child bond among the majority of the female staff who were working mothers in Kogi State University.

Table 3 equally reveals that 128 representing 56% of the respondents signified that exclusive breastfeeding is a natural method of family planning while 61 representing 227% of the respondents indicated in contradiction that exclusive breastfeeding is not a natural method of child spacing or family planning whereas the remaining 38 representing 17% of the respondents were not sure whether exclusive breastfeeding is a natural method of family planning or not. The implication of this is that majority of the female staff who were working mothers in Kogi State University understood that exclusive breastfeeding is a natural form of family planning perhaps they used exclusive breastfeeding to practice child spacing system.

Table 3 shows that 111 representing 49% of the respondents signified in affirmative that Exclusive Breastfeeding reduces the cases of postpartum bleeding, while 85 representing 37% indicated that Exclusive Breastfeeding does not reduce any cases of postpartum bleeding whereas the remaining 31 representing 14% of the respondents claimed that they were not sure whether exclusive breastfeeding reduces the cases of postpartum bleeding. This implies that majority of the female staff who were working mothers in Kogi State University understood that exclusive breastfeeding reduces cases of postpartum bleeding.

Table 3 indicates that 119 representing 52% of the respondents admitted that exclusive breastfeeding reduces the risk of breast and cervical/ovarian cancer while 89 representing 40% of the respondents indicated in contradiction that exclusive breastfeeding doesn't reduce any cases of breast related cancer, whereas the remaining 19 representing 8% of the respondents claimed that they were not sure whether exclusive breastfeeding reduces any case of breast or cervical cancer and the likes. The implication of these findings signifies that majority of the female staff who were working mothers in

Kogi State University knew that cases of breast and cervical cancer reduces if you practice exclusive breastfeeding.

Table 3 also shows that 122 representing 54% of the respondents indicated that exclusive breastfeeding helps mothers to quickly recover and return to their normal shape after child birth, while 75 representing 33% of the respondents had a contradictory views whereas the remaining 30 representing 13% of the respondents admitted that they were not sure where exclusive breastfeeding can help mothers to quickly recover and return to their normal shape after child birth. These findings signifies that majority of the female staff who were working mothers in Kogi State University understood that exclusive breastfeeding makes them to quickly recover and return to their normal shape after child birth.

The result of the interview was not that different from what was revealed in the questionnaire as a participant revealed thus:

‘Exclusive breastfeeding lowers baby’s risk of ear, nose, throat and sinus infections and may protect against autoimmune disease and respiratory allergies as well, and even lowers the risk of the child contracting asthma diseases. The interview further showed that after six months of breastfeeding, your baby also has a 19 percent lower risk for childhood leukaemia’ (IDI/F/33/2/Secretary/2023).

Another participant (interviewee) said thus:

"Exclusive breastfeeding is good and my practice of it was like war because my mother in-law did not like the idea at all, but I paid deaf ear and even when I resumed work after child birth from leave, I always drop my baby with a Nanny and breastfeed conveniently for six months. That was my first child. So now, everyone knows my stand so they mind less and I don't intend to stop before six months" (IDI/F/30/2/Security/2023).

Research Question 3: What are the challenges of exclusive breastfeeding among working mothers in Kogi State University?

Table 4: Challenges of Exclusive Breastfeeding among Working Mothers in Kogi State University.

Variable	Category	Frequency	Percentage
Family influence	Yes	132	58
	No	45	20
	Not sure	50	22
Antenatal education	Yes	98	43
	No	74	33
	Not sure	55	24
Work schedule	Yes	99	44
	No	71	31
	Not sure	57	25
Breast milk production	Yes	127	56
	No	69	30
	Not sure	31	14

Economic factors	Provision of vocational break at work.	49	21
	Prenatal education	56	25
	Supportive employers.	06	03
	Extension of maternity leave	62	27
	Early closure for nursing mothers	54	24
Psychological factors	Having to breastfeed even in public places.	82	36
	Fear of feeding continually even with sore nipples	48	21
	Stress of feeding at all time.	52	23
	Feelings that the baby will not get enough nutrient	45	20

Source: Field Survey, 2023

Table 4 reveals that 49 representing 21% of the respondents indicated that they would be encouraged to practice exclusive breastfeeding if they was a provision of vocational break in their places of work, 56 representing 25% of the respondents admitted that they would have practiced exclusive breastfeeding more if there was an adequate prenatal education and preparation, 6 representing 3% of the respondents claimed that they would be encouraged to practice exclusive breastfeeding more if there was a support from their employers, 62 representing 27% of the respondents signified that nothing encouraged them to practice exclusive breastfeeding more than extension of maternity leaves to 5 months while the remaining 54 representing 24% of the respondents were of the opinion that nothing encouraged them more to practice exclusive breastfeeding than early closure for nursing mothers from works. The implications of these findings signifies that majority of the female staff who were working mothers in Kogi State University would be encouraged more to practice exclusive breastfeeding if their maternity leaves were extended to five (5) months or even more. The findings from the interview sessions contradicted that of the questionnaire as the participants admitted that their practice of exclusive breastfeeding will be effective if there is a provision for office Creches and Nannies attached to their various offices to help them while on duty and to formulate a policy that will allow nursing working mothers to close by half a day instead of working for a full day.

Table 4 reveals that 82 or 36% of the respondents indicated that they don't practice exclusive breastfeeding because if you do you will have to breastfeed the baby even in public places, 48 or 21% of the respondents admitted that what hindered them from observing exclusive breastfeeding was the fear of breastfeeding continuously even with sore nipples, 52 or 23% of the respondents claimed that what prevented them from observing exclusive breastfeeding was the worries and stress of breastfeeding at all times while the remaining 45 or 20% of the respondents what made them not to practice exclusive breastfeeding was the feeling that the baby will not get enough nutrients with only breast milk. The implication of these findings is that the most psychological factors that hindered majority of female staff who were working mothers in Kogi State University from practicing exclusive breastfeeding was the feeling that even in public places you will have to bring out your

breast to breastfeed your baby. The findings from the interview supported that of the questionnaire as the participants claimed that they don't normally like breastfeeding in public places because it attracts evil eyes looking at them as feeling pompous.

Research Question 4: What are the socio-cultural perception or impact associated with exclusive breastfeeding among working mothers in Kogi State University?

Table 5: Socio-cultural perception or impact associated with exclusive breastfeeding among working mothers in Kogi State University?

Variable	Category	Frequency	Percentage
Cultural perceptions against EBF	Colostrum (a taboo)	33	15
	Bad omen (a curse)		
	Evil eyes in public	13	06
	Gender sucking tendencies	71	31
	Sag breast		
	Sore nipples	36	16
		53	23
	21	09	

Source: Field Survey: 2023

Table 5 signifies that 33 or 15% of the respondents indicated that colostrum which is a taboo is the cultural perception that hindered their practice of exclusive breastfeeding, 13 or 6% of the respondents admitted that they perceived exclusive breastfeeding as bad omen and that anyone practicing it must be under curse, 71 or 31% of the respondents indicated that they don't practice exclusive breastfeeding because it attracts evil eyes from the public, 36 or 16% of the respondents admitted that their practice of exclusive breastfeeding was subjected to the gender of the infants under nursing, while 53 or 23% of the respondents claimed that they don't practice exclusive breastfeeding because it makes their breasts to be sagging whereas the remaining 21 or 9% of the respondents submitted that what hindered them from the practice of exclusive breastfeeding was sore nipples. These findings imply that what hindered the most of female staff who were working mothers in Kogi State University from practicing exclusive breastfeeding was the cultural perception that it attracts evil eyes from the public. This was interpreted to mean that they thought that members of the public look at them as been pompous, too enlightened or educated enough more than everyone else and so that mind set or perception hindered them from observing exclusive breastfeeding to avoid been castigated against. The results of the interview were similar to that of the questionnaire.

Research Question 5: How effective is exclusive breastfeeding among working mothers in Kogi State University, Anyigba?

Tables 6: Effective is exclusive breastfeeding among working mothers in Kogi State University, Anyigba

Variable	Category	Frequency	Percentage
Effectiveness of EBF	Effective	28	12
	Very effective	48	22
	Ineffective	91	40
	Very ineffective	60	26

Source: Field Survey, 2023

Table 6 shows that 28 (12%) of the respondents rated the practice of exclusive breastfeeding as effective, 48 (22%) of the respondents rated the practice of exclusive breastfeeding as very effective while 91 (40%) of the respondents rated the practice of exclusive breastfeeding as ineffective whereas the remaining 60 (26%) of the respondents rated the practice of exclusive breastfeeding as very ineffective. This means that the practice of exclusive breastfeeding among female staff who were working mothers in Kogi State University has been rated to be ineffective as a result of all the sociocultural, economic and psychological factors indicated above, though they were not ignorant of the notable benefits of the practice. Even the findings from the interviews supported that of questionnaire as the participants concluded that though they were not ignorant of its advantages, their practice of it was not effective as expected and supposed.

4.1 Testing of Hypotheses

In analysing the two (2) hypotheses stated earlier in chapter one, the test statistics of Multiple Linear Regression (MLR) aided by Statistical Package for Social Sciences (SPSS) was used to test hypothesis two, while Chi Square was used in testing hypothesis one to determine the extent to which one research variable affects the other and in testing the effectiveness of the correlation in the practice of exclusive breastfeeding using the variables in the study. Below are the analysis and the testing of the hypotheses formulated to answer the research questions asked to guide the study.

Hypothesis One

H₁: There is significant relationship between exclusive breastfeeding and mother quick recovery after child birth.

H₀: There is no significant relationship between exclusive breastfeeding and mother quick recovery after child birth.

Question no. 20 on the questionnaire was designed and administered to validate or disprove the above hypothesis

The Test

The goal is to test if there is any significant relationship between exclusive breastfeeding and mothers' quick recovery and return to normal shape after child birth. Based on the outcome of the questions in the questionnaire administered to test hypothesis one, Chi-square was employed using Statistical Packages for Social Sciences (SPSS). The result below emerged:

Table 7: Chi-square Statistics and Cross tabulation for Effectiveness of Exclusive Breastfeeding and Mothers Quick Recovery after Child birth

Variables	Observed	Expected	Residual	X ²	DF	P-value
Yes	122	75.6	46.4	199.3 ^a	2	0.05
No	75	75.6	-0.6			
Not sure	30	75.6	-45.6			
Total	227					
Variable	Category	Frequency	Percentage			
Effectiveness	Effective	28	12			
	Every effective	48	22			
	Ineffective	91	40			

Very ineffective	60	26
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Source: Researchers' Computation, 2023

A close observation of the computed value of chi-square for degrees of freedom (2) using two tail test ($X^2_{cal} = 199.3$) shows that chi-square computed was statistically significant at 1 percent level of significance. The result further indicates the respondents' response on the case **“Do you think that Exclusive Breastfeeding helps the mother to quickly recover and return to her normal shape after child birth?”** is statistically significant. From the decision rule this result is further confirmed with the chi-squared calculated (199.3) greater than chi-square tabulated (5.991) at 1 percent level of significance. The above result therefore accepts the alternative hypothesis that there is a significant relationship between exclusive breastfeeding and mother quick recovery after child birth while rejecting the null hypothesis.

From the cross tabulation, it can be seen that majority, that is 91 representing 40% of the respondents admitted that the practice of exclusive breastfeeding has not been ineffective among the working mothers in Kogi State University. This can be interpreted to mean that irrespective of the notable benefits of exclusive breastfeeding, working mothers still did not practice it effectively, and this could be attributed to the challenges faced by marking mothers such as lack of adequate maternal/paternal leaves, work schedules and socio-cultural factors.

Hypothesis Two

Ho: Family influence, breast milk production, work schedule and education from antenatal services do not significantly Influence the practice of Exclusive Breastfeeding among working mothers in Kogi State University, Anyigba.

Question no. 21 - 24 on the questionnaire were designed and administered to validate or disprove the above hypothesis.

The Test

The goal is to test and establish if the sociocultural and economic determinants such as family factor, breast milk production, work schedule and education from antenatal services can significantly influence the practice of exclusive breastfeeding among working mothers in Kogi State University, Anyigba. Based on the outcome of the questions in the questionnaire administered to test hypothesis two, Multi Linear Regression was employed using Statistical Packages for Social Sciences (SPSS). The result below emerged:

Table 8: Summary of Multiple Linear Regression Result of the Determinants of Exclusive Breastfeeding among Working Mothers in Kogi State University, Anyigba

	Unstandardized Coefficients	Standardized Co-efficients	T	Sig.
(Constant)	B	Std. Error Beta		
	42.412	4.235 0.258	7.265	0.005
Family influences	3.721	1.528 0.244	2.458	0.005
Breast milk production.	3.258	1.269 0.235	2.358	0.005
Education from	3.241	1.248 0.295	2.254	0.001

antenatal service

R = 0.285^a

R² = 0.872 Std. Error of the Est.

F = 2.147 5.50016

P = 0.001^b

Source: Researchers' SPSS Computation, 2023

From the above results, The R² of 0.872 shows that factors such as Family influence, breast milk production and education from antenatal services contributes about 87.2% to the practice of exclusive breastfeeding. The stated hypothesis is therefore rejected. This indicates that family influence, breast milk production, work schedule and education from antenatal services significantly Influence the practice of Exclusive Breastfeeding among working mothers in Kogi State University, Anyigba.

4.2 Discussion of Findings

This study investigated the social determinants of Exclusive Breastfeeding among working mothers in developing economies using Kogi State University, Anyigba as area of study.

On the benefits of exclusive breastfeeding, hypothesis one was tested using Chi- square because of the categorical nature of the variables and it was established that there is a significant relationship between exclusive breastfeeding and the mothers' quick recovery and return to normal shape after child birth. The study identified other benefits of exclusive breastfeeding to both the mother and the infants. As it was revealed by the significant majority of the respondents, for instance, 65% affirmed that exclusive breastfeeding helps in the physical and mental development of the infants, 81% affirmed that it helps the infants in gaining more weight, 56% affirmed that it reduces the chances of contracting breast cancer and 52% also affirmed that it serves as a natural method of family planning. The findings of this study corroborates with and affirmed the submission of scholars such as Foster (2006), Eidelman, et al., (2012), Victoria et al., (2015) and Odu et al., (2012) who posited that Exclusive Breastfeeding reduces postpartum bleeding, enhances accelerated involution of the uterus and plays a crucial role in child spacing through lactational amenorrhea. The scholars further opined that breastfeeding reduces risks of osteoporosis, hip fracture, breast cancer, ovarian cancer, and type 2 diabetes and helps the mother to regain her natural shape.

The study also discovered the socio cultural and economic challenges faced by the working mothers in Kogi State University in their practice of exclusive breastfeeding as revealed by the significant majority of the respondents. For instance 58% affirmed family influences, 44% affirmed work schedule, 43% affirmed breast milk production and 56% affirmed education from antenatal services were the major determinants of the practice of exclusive breastfeeding. These results have validated hypothesis two which was tested with Multiple Linear Regression and it concludes that all the sociocultural and economic challenges listed above contribute about 87% to the determinants of exclusive breastfeeding among working mothers in Kogi State University. The findings of this study are in agreement with the population of scholars such as Dun-Dary, (2016) and Nkrumah, (2016) who submitted in their own findings that mothers reported that insufficient breast milk was major challenge that hinders effort towards attaining optimum exclusive breastfeeding especially among mothers in developing countries. Mothers who were unable to meet their children's demands for breast milk found themselves in a state of despair. In some instances, mothers who could not produce enough breast milk had no other choice than to give their children other foods to supplement the insufficient breast milk. They further stressed that work schedules of mothers equally hinder the practice of exclusive breastfeeding. In the sense that the early return to work by breastfeeding mothers in civil and public services after three months of maternity leave tend to compound exclusive breastfeeding challenges for mothers. The scholars also found that comments and counsel from close

associates such grandmothers, co-tenants, mother in laws and significant others can also affect the practice of exclusive breastfeeding among working mothers in the developing economy.

The study also pointed out the sociocultural perception of mothers against the practice of exclusive breastfeeding as 54% representing a significant majority of the respondents affirmed that they were afraid of their breasts being sagged and evil eyes from the public scared them from observing exclusive breastfeeding. This perception and superstitious belief could be attributed to the orientation received from family and significant others. These findings conform to the postulation of Lawoyin, et al., (2001) who posited that adoption of exclusive breastfeeding is perceived differently by different people of diverse culture, beliefs and ethnic background. In spite of these advocacies and the health benefits associated with exclusive breastfeeding, people's perception has been a hindrance to effective and adoption of exclusive breastfeeding practice in most communities, among such perceptions are taboos, bad omen and evil eyes from members of the public, sag breast and gender sucking tendencies among others.

The study further assessed the effectiveness of the practice of exclusive breastfeeding using Chi square statistical tool in which the result showed that the practice of exclusive breastfeeding among working mothers in Kogi State University was ineffective. And this could be as a result of the psychological factors posing as challenges such as having to breastfeed even in public places, the fear of feeding continuously even with sore nipples, the worries and stress of breastfeeding at all times and the feeling that the baby will not get enough nutrients. This is not surprising because of the sociocultural and economic factors in our societies revealed by the study, coupled with the high cost of living even among the working mothers as a hungry mother cannot effectively practice exclusive breastfeeding. The findings of this study is in tandem with the position of Bisi-Onyaeachi, (2017) who submitted that in Nigeria, the rate of exclusive breastfeeding is low, 17% in 2013 and 29% in 2018. He further claimed that the rate of breastfeeding initiation within the first hour of delivery is equally low (38%). These low rates of breastfeeding practice possibly contribute to the high burden of neonatal and infant mortality in the country. Evidence linking inappropriate breastfeeding practices with child morbidity and mortality lends credence to this position.

The findings of this study also agree with the theoretical framework of the study i.e the theory of planned behaviour which started as the theory of reasoned action to predict individual's intention to engage in a certain behaviour at a specific time and place. The theory focuses on cognitive factors influencing behaviour. In this regard the cognitive factors are the socio-cultural perceptions and superstitions among other social determinants which affects the practice of exclusive breastfeeding. They include women not breastfeeding exclusively as a result of evil eyes of the public, perceiving exclusive breastfeeding as a bad omen and a taboo, making one's breasts to be sagging, gender sucking tendencies that is discouraging exclusive breastfeeding for male babies among others.

Also, the theory used for the study supports the findings of this study as it justifies the cognitive factors affecting working mothers' intentions to engage in the attitude of practicing exclusive breastfeeding in Kogi State University.

4.3 Conclusion

Arising from the findings of the study, exclusive breastfeeding is very crucial and beneficial to the health of infants as mixed feeding with complementary foods and water results in diseases among infants. Despite the health education done at hospitals and communities on awareness of exclusive breastfeeding up to six months, working mothers are reluctant or finding it difficult to stick to the teachings. This failure to practice exclusive breastfeeding has been attributed to sociocultural,

psychological and economic factors which promote other feedings as a way of safekeeping the infants. Working mothers showed that they have a problem breastfeeding their infants exclusively because the maternity leave is short and so they don't have option than to supplement breast milk with other feeds especially while at work which includes porridge and baby milk bought in shops. These brought the study to a conclusion that exclusive breastfeeding is ineffectively been practiced among working mothers in Nigeria as a whole and particularly in Kogi State University, Anyigba.

4.4 Recommendations

In order to improve on the practice of exclusive breastfeeding among female staff who are working mothers in Kogi State University, Anyigba, the researcher made the following recommendations from the finding as follows:

- i. Considering the crucial benefits of exclusive breastfeeding especially in the physical and mental development of infants, the management of Kogi State University, Anyigba should reduce the nursing mothers' working hours by half a day or better still increase the period of maternity leave of mothers to six months to enable them have enough time to breastfeed their babies without interruptions and distractions at work.
- ii. There should be formation of social support groups who will preach against the sociocultural perception and superstitious believes associated with the practice of exclusive breastfeeding on the community basis through enlightenment campaigns.
- iii. Health workers especially nurses should try and leave by example. It is discouraging for nurses to preach about exclusive breastfeeding while they themselves do not practice it.

4.5 Suggestions for Further Study

1. Assessment of the level of compliance between nursing mothers in rural and urban areas should be empirically investigated.
2. Factors affecting the practice of exclusive breastfeeding among teenagers who are nursing mothers should be considered.

Authors' contributions

Florence EGWUMAH designed the study, collected the data, analyzed the data and interpreted the data. **Ezekiel Olalekan IYANDA** wrote and reviewed the literature.

The authors read and approved the final manuscript.

Competing interests

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