FACTORS ASSOCIATED WITH EXCLUSIVE BREAST FEEDING AMONG FORMALLY EMPLOYED WOMEN SEEKING MATERNAL AND CHILD HEALTH SERVICES AT KENYATTA NATIONAL HOSPITAL, KENYA

BY

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DECLARATION

I Caroline Kawira Gitari declare that this thesis is my own original work and has not been presented for a degree in any other University.

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DEDICATION

I dedicate this thesis to God Almighty for giving me strength, inspiration and for being my anchor. To my spouse Mr. Gitonga Njeru and children; Tiffany Kendi, Jayden Mwenda and Jasmine Kanana for their unconditional love, sacrifice, and support towards this achievement.

ABSTRACT

Kenyan prevalence of exclusive breastfeeding is currrently at 60% which is a slight decline from 61% in 2014 and still falls short of the World Health Organization recommendation for global coverage. At Kenyatta National Hospital, 48% of the women with children attending the Mother and Child Health (MCH) clinic are in formal employment with only 29% of its health professionals exclusively breastfeeding while 51.2% of mothers with newborn babies have good breastfeeding practices with majority intending to breastfeed exclusively for 6 months. A better understanding of the factors that influence EBF is important in order to promote appropriate infant feeding practices especially among the formally employed women in contribution to the attainment of Sustainable Development Goals. This study sought to determine factors associated with exclusive breastfeeding among formally employed women seeking Maternal and Child Health services at Kenyatta National Hospital (KNH). The study objectives were to; establish the maternal, family, and workplace – related factors that associated with exclusive breastfeeding among formally employed women seeking MCH services at KNH, Kenya. A cross-sectional study design was employed which targeted 195 mothers with children below 6 months out of approximately 688 formally employed women seeking MCH services at Kenyatta National Hospital (KNH). Systematic Random Sampling technique was used. The study employed questionnaires to collect data on maternal, family and workplace related factors and how they associate with exclusive breastfeeding. Data from questionnaires was cleaned, coded and entered into IBM SPSS version 23 for analysis. Descriptive statistics was used to analyse the population characteristics of maternal, family and workplace related factors and their association with exclusive breastfeeding among formally employed women seeking MCH services at KNH was computed using Pearson's *chi* square at 95% confidence level. A *P*-value of < 0.05 was utilized as the statistical significance criterion. The study found that slightly over half 53.5% (n=104) are classified as having exclusively breastfed while 46.5% (n=91) are classified as non-exclusive breastfeeding. The maternal and work-related factors were not significantly associated with exclusive breastfeeding while family related factors were found to be significantly associated with exclusive breastfeeding among formally employed women. The study concludes that the rate of exclusive breastfeeding is significantly associated with family support. The study thus calls for more community sensitization on breast-feeding and the need for employers to strengthen their measures to support breastfeeding employees.

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LIST OF ABBREVIATIONS AND ACRONYMS

BFCI	Baby Friendly Community Initiative
BFHI	Baby Friendly Hospital Initiative
BMS	Breast Milk Substitute
EBF	Exclusive breastfeeding
ERB	Ethics Review Committee
ICF	Inner City Fund
IFC	International Finance Corporation
ILO	International Labor Organization
IMR	Infant Mortality Rate
IYCF	Infant and Young Child Feeding
KDHS	Kenya Demographic Health Survey
KNBS	Kenya National Bureau of Statistics
KNH	Kenyatta National Hospital
LAM	Lactational Amenorrhea Method
LMICs	Low- and Middle-Income Countries
MCH	Maternal and Child Health
MIYCN	Maternal, Infant and Young Child Nutrition
NNAP	National Nutrition Action Plan
UNICEF	United Nations International Children's Emergency Fund
UoN	University of Nairobi
USAID	United States Agency for International Development
WABA	World Alliance for Breastfeeding Action
WHA	World Health Assembly
WHO	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Exclusive breastfeeding(EBF): That an infant receives only breast milk from his or her mother or a wet nurse, or expressed breast milk, and no other liquids or solids, not even water, with the exception of oral rehydration solution, drops or syrups consisting of vitamins, minerals supplements or medicines from birth to 6months.

Formal Employment: According to International Labor Organization (ILO), employees are considered to be in formal employment if their employment relationship is subject to national labor legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.)(Hussmanns, 2004).

Lactational Amenorrhea Method (LAM): The informed use of breastfeeding as a contraceptive method by a woman who is still amenorrhoeic, and who is not feeding her baby with supplements, for up to 6 months after delivery.

0 – 6Months: All children from birth to 5.9 months

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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Breastfeeding is globally recognized as an unparalleled natural way through which infants are provided with ideal food to promote their healthy growth and development, and an essential reproductive process to the mothers with critical health implications. To attain optimal infant and young child feeding, the global public health recommendation provides that infants are initiated with breastfeeding within the first hour of birth, breastfed exclusively for the first six months of life, and thereafter receive nutritionally adequate and safe complementary foods while continuing with breastfeeding for up to two years of age or beyond for them to have a good foundation for their growth and development (WHO, 2019).

Optimal breastfeeding boosts growth and development of the infant's immune system thus protecting them against the major causes of infant mortality such as diarrhoea and respiratory infection episodes by half and a third respectively during the first six months of life which are highly prevalent in the developing countries such as Kenya(UNICEF, 2018; Lamberti, et al., 2011).Breastfeeding is an invaluable single most cost effective and efficient intervention for its pivotal potential of averting over 13% of all childhood deaths ((Victora, et al., 2008; Rollins, *et al.*, 2016).

The advantages of breastfeeding are widely known but the levels of optimal practice remain low. Globally, only less than half (44%) of the infants are exclusively breastfed (UNICEF, 2021) with only 23 countries having achieved an Exclusive Breastfeeding (EBF) rate of 60% according to data from (UNICEF and WHO, 2017). In Africa, the rates of EBF are much lower than the global average ranging from 23.7% in Central Africa to 32.6% in West Africa, 53.5% in East Africa and 56.6% in Southern Africa (Adebayo et al., 2021) while the Kenyan rates compares better at 60% (KNBS and ICF, 2023). This rate is a slight decline from 61% in 2014 and falls short of the World Health Organization recommendation of global coverage of 80%. Optimal breastfeeding is a critical pathway towards achieving many of the Sustainable Development Goals (SDGs) such as the SDG 2 on improving nutrition, SDG 3 on preventing child mortality and decreasing the risk of non-communicable diseases, and SDG 4 on supporting cognitive development and education. It also is a great enabler for SDGs corresponding to ending poverty,

promoting economic growth and reducing inequalities (Habibi et al., 2018)(UNICEF and WHO, 2019). The 2022 Kenya Demographic and Health Survey (KDHS) findings revealed that the Maternal Infant and Young Child Nutrition (MIYCN) practices and corresponding outcomes remain low. On child nutrition, 60% of children age 0–5 months are exclusively breastfed, a slight decline from 61% in 2014 KDHS Survey. Further, at age 0–1 month, 77% of children are exclusively breastfed as opposed to 100% per WHO recommendations. 4% of children age 0–1 month received breast milk and solid, semi solid, or soft foods, 5% received breast milk and water, and 7% received breast milk and no milk liquids. By age 4–5 months, the percentage of children exclusively breastfed sharply declines to 38% and the majority of children are receiving liquids or foods other than breast milk, with solids, semi-solids, or soft foods being the highest percentage (29%) (KNBS and ICF, 2023).

Globally, 45% of under-fives mortality totalling to 2.7 Million children have been directly and indirectly attributed to under nutrition from sub optimal Infant and Young Child Feeding (IYCF) practices with the highest burden being in the low- and middle-income countries (LMICs)(WHO, 2020). Further, in developing countries, inadequate breastfeeding feeding practicesincreases the infant mortality rates by six times in comparison to children who receive adequate breastfeeding (WHO, 2020). It is therefore imperative to identify factors that could associate with the practice of breastfeeding given the growing compelling evidence of benefits of breastfeeding.

The participation of women in the labour work force in LMICs is steadily increasing with women participation in Kenya labour force being reported at 49.7%along with more women moving to more formalized employment thus scaling the reproductive and productive roles which are often been in conflict. It is estimated that if gender employment gaps were narrowed, women's participation in employment can increase the Global Domestic Product (GDP) by 35%. This thus escalates the challenges that women face at the workplace, including continued breastfeeding(Chang et al., 2021; Ickes et al., 2021; Kebede et al., 2020a). Women working in formal employment experience a myriad of challenges upon return to work that hinder their continued breastfeeding (Musoke, 2019). Women experiences of combing work and breastfeeding describe gender and employment inequalities as the greatest challenge of receiving adequate support for breastfeeding thus leading to physical and emotional difficulties (Arif et al., 2021; Chang et al., 2021).

At the individual level, maternal related factors such as mother education level, marital, family income, have been cited to influence breastfeeding (Arif et al., 2021; Walters et al., 2019; Wanjiru, n.d.). In addition, maternal awareness of breastfeeding has been shown to significantly reduce the risk of early breastfeeding termination (Gewa and Chepkemboi, 2016).

Family supports plays an integral role in the achievement of optimal breastfeeding practices. Evidence from studies conducted in the world have shown that the family support system that include the husband, partner, grandmother, house help and other family members not only have an influence on the mother's decision making process of the practice of exclusive or non-exclusive breastfeeding but also are important in determining the termination or continuation of breastfeeding for working mothers upon return to work (Ogbo et al., 2019; Magnano San Lio et al., 2021; Kossou et al., 2021).

The discontinuation of EBF has been associated with several workplace related factors that include; inadequate maternity leave, lack of adequate time during employment, no support such as break and equipment for expressing breast milk, long distance from children and inflexible work schedules (Ickes et al., 2022; Scott B. Ickes et al., 2021; Kebede et al., 2020; Wainaina et al., 2018; Wanjiru, 2022).

To secure support for breastfeeding women in employment, Kenya has and is in the process of adopting, developing and launching a number of policies and initiatives towards supporting breastfeeding. The Kenya Employment Act, 2007 allows for 90 days of maternity leave and 14 days paternity leave, with ILO Maternity Protection Convention, 2000 (No. 183), recommending a period of maternity leave of not less than 14 weeks. Additionally, The Kenya Health Act, 2017 mandates all employers to set up lactation stations and allowance of breastfeeding breaks in addition to the normal breaks (Government of Kenya, 2017). Further to this law, the Ministry of Health developed guidance to secure implementation of these policies (Kenya Ministry of Health, 2018) towards the achievement of global and national targets such as Vision 2030 and the Sustainable Development Goals which have not been fully implemented. Kenyatta National Hospital (KNH) provides outpatient services covering a large number of Nairobi residents and referrals from other counties of various socio-economic status. In 2020, according to the Child Health and Nutrition Information System (CHANIS) report 2,968 children 0-59 months were

attended at the MCH clinic, including 684 children 0-6 months and has been accredited as a Baby Friendly Hospital. Some of the services sought at the MCH clinic include family planning, immunization, growth monitoring, supplementation and deworming. 48% of the women with children attending the MCH clinic are in formal employment (Muathe, 2020). 29% of its health professionals exclusively breastfeed (Musoke, 2019), while 51.2% of mothers with new born babies have good breastfeeding practices with majority intending to breastfeed exclusively for 6 months (Wanjiru, 2022).Kenyatta National Hospital provided a great catchment for formally employed women with a prevalence of 48% of formally employed women visitisting the MCH clinic as compared to 30.3% and 18.3% at Pumwani Maternity Hospital and Mama Lucy Kibaki Hospital respectively (Musaa,2020; Njuki, 2020).

The conceptual framework adopted illustrated and conceptualized the maternal, family and workplace related factors association with exclusive breastfeeding. Therefore, a better understanding of the factors that influence EBF is important in order to promote appropriate infant feeding practices especially among the formally working women. This study therefore sought to determine the mother, family and workplace related factors that associate with the practice of EBF among formally employed women seeking Maternal and Child Health (MCH) services in KNH, Kenya.

1.2 Statement of the Problem

Kenya's EBF rate of 60%is short of the recommended target of 80% for universal coverage by World Health Organization (WHO) target. Suboptimal breastfeeding is closely linked to growth faltering and severe malnutrition which causes a significant increase in the risk of health consequences of lower cognitive development, illnesses and death. The alarming rates of poor nutrition outcomes where18% of children aged less than five years are stunted, 5% are wasted, and 10% are underweight are attributed to sub-optimal breastfeeding.

Research has shown that the rate of EBF by age sharply decreased from 77% in the first month to 38% in the fourth month, respectively attributing to the suboptimal infant feeding practices that increase the risk of children's death by over two-thirds in the first year of life. The sharp decrease is partly attributable to complacency and the coincidence of return to work after maternity leave thus underscoring the need to strengthen the support system for the working

mother at all the levels from the family to the workplace. Women working in formal employment experience a myriad of challenges upon return to work that hinder their continued breastfeeding. Such challenges include maternal factors such as education level and inadequate awareness to make informed infant feeding choices, low household income to provide family basic needs. Further, formally employed women face inadequate support from spouses and other children carers with regard to encouragement and appropriate feeding of the infants.

At the workplace, they experience short maternity leaves, lack of conducive designated space to breastfeed or express breast milk, long work schedules with minimal breaks, long distance between work and home, and inadequate flexibility of work schedules. The laws by the government of Kenya providing for three-month paid maternity leave, and mandating employers to set up lactation stations with appropriate storage and refrigeration facilities, nursing breaks and flexible working schedules seek to promote breastfeeding through employer support but have been inadequately implemented.

48% of the women with children attending the MCH clinic at Kenyatta National Hospital are in formal employment. Only 29% of the health professionals at KNH exclusively breastfeed, while 51.2% of mothers with new born babies have good breastfeeding practices with majority intending to breastfeed exclusively for 6 months. The factors associated with exclusive breastfeeding among formally employed women has not been adequately documented.

1.3 General Objective

To determine factors associated with EBF among formally employed women seeking MCH Services at KNH, Kenya.

1.4 Specific Objectives

i. To establish maternal– related factors that associated with EBF among formally employed women seeking MCH Services at KNH;
ii. To determine family –related factors that associated with EBF among formally employed women seeking MCH Services at KNH; and
iii. To identify workplace – related factors that associated with EBF among formally employed women seeking MCH Services at KNH.

1.5 Research Questions

i. What maternal – related factors were associated with exclusive breastfeeding among formally employed women seeking MCH services at KNH?
ii. What family– related factors were associated with exclusive breastfeeding among formally employed women seeking MCH services at KNH?
iii. What workplace – related factors were associated with exclusive breastfeeding among formally employed women seeking MCH services at KNH?

1.6 Justification of the Study

The participation of women in the labour work force in LMICs is steadily increasing with women participation in Kenya labour force being reported at 49.7% along with more women moving to more formalized employment thus scaling the reproductive and productive roles which are often been in conflict. It is estimated that if gender employment gaps were narrowed, women's participation in employment can increase the Global Domestic Product (GDP) by 35%. This thus escalates the challenges that women face at the workplace, including continued breastfeeding as 51.2% of mothers with new born babies have good breastfeeding practices and majority of whom are intending to breastfeed exclusively for 6 months.

1.7 Significance of the Study

This study sought to generate information on the various mother, family and workplace related factors that influence exclusive breastfeeding. This information will be useful in the ongoing advocacy for workplace support for exclusive breastfeeding by the Ministry of Health and other stakeholders. It will also contribute to the pool of evidence for usein social mobilization of the community, family and workplace structures that are conducive for breastfeeding support for the mothers working in the formal sectors. This will contribute to the overall goal of attaining universal coverage on exclusive breastfeeding thus enhancing child survival, growth and development, and the United Nations Sustainable Development Goals.

1.8 Study Limitations

i.) The study was conducted in a hospital setting and results may not be generalized to other formally employed women in the community setting

ii.) The study did not consider formally employed women with children 6-24 months and therefore could not fully assess the association for all breastfeeding women.

1.9 The Conceptual Framework

The conceptual framework illustrates associations between mother, family and workplace related factors and exclusive breastfeeding. The maternal related factors such as Income level, Education level, Marital status and Maternal awareness on breastfeeding may influence breastfeeding practices. Family related factors such as Spouse and other household support may determine whether mothers exclusively breast feed or not; and Workplace related factors such as Flexibility of working hours, Supervisor and workmates support, Workplace feeding policies enactment and Workplace breastfeeding facilities availability may affect mother' breastfeeding practices. In this study therefore, maternal related, family related and work-related factors were considered as independent variables while the exclusive was the dependent variable.

Independent Variables

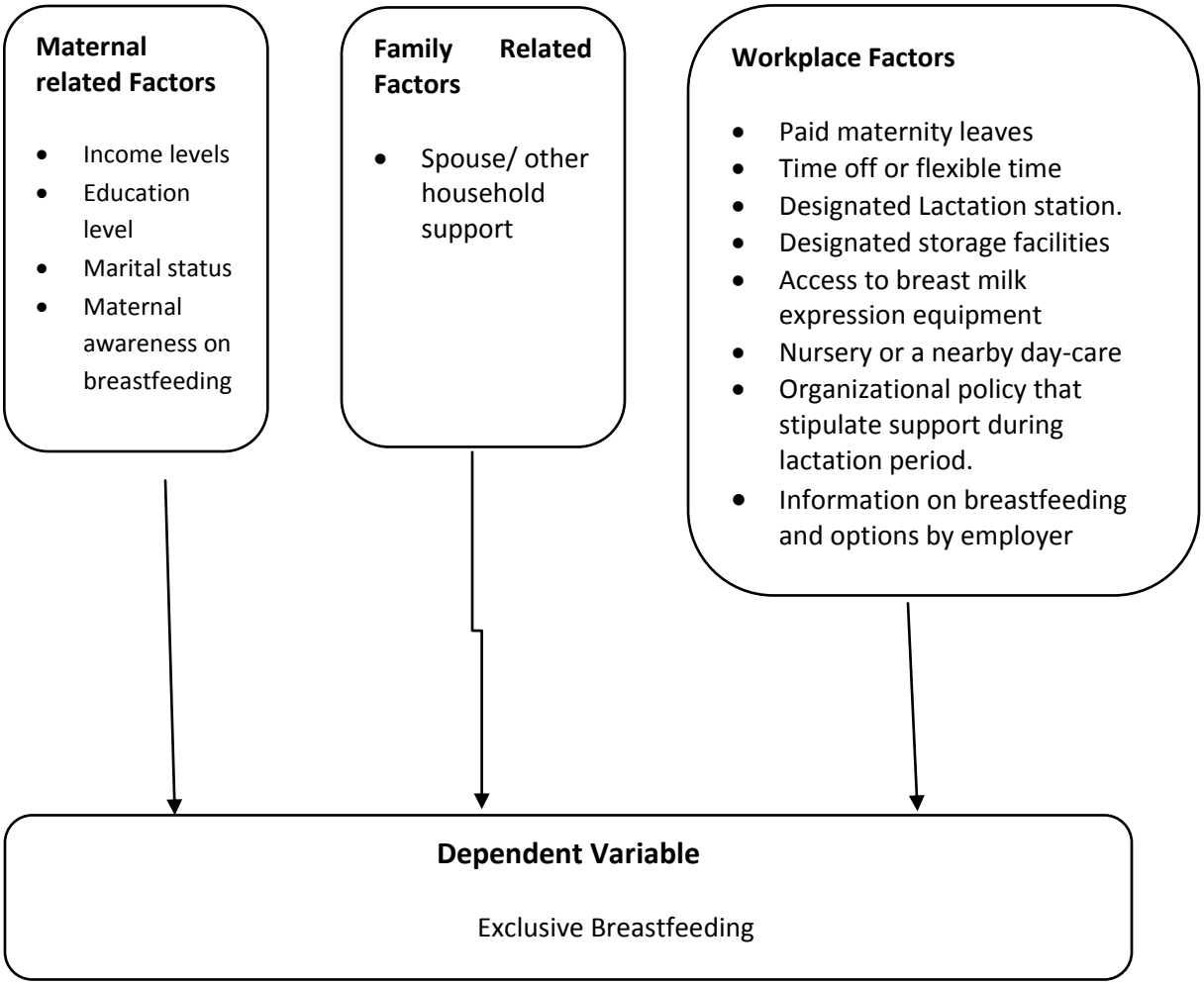

Figure 0:1:Conceptual Framework: Factors Associated with Exclusive Breastfeeding.

Source: Adapted and modified from ACC/SCN, (2000).

CHAPTER TWO
LITERATURE REVIEW

Chapter two contains the review of relevant literature on the overview of exclusive breastfeeding, maternal, family and workplace related factors and their association with exclusive breastfeeding providing a description from a global, continental, regional and Kenyan perspective.

2.1 Overview of Exclusive Breastfeeding

Breastfeeding is globally recognized as an unparallel natural way through which infants are provided with ideal food to promote their healthy growth and development, and an essential reproductive process to the mothers with critical health implications. To attain optimal infant and young child feeding, the global public health recommendation provides that infants are initiated with breastfeeding within the first hour of birth, breastfed exclusively for the first six months of life, and thereafter receive nutritionally adequate and safe complementary foods while continuing with breastfeeding for up to two years of age or beyond for them to have a good foundation for their growth and development (WHO, 2019).

Optimal breastfeeding boosts growth and development of the infant's immune system thus protecting them against the major causes of infant mortality such as diarrhoea and respiratory infection episodes by half and a third respectively during the first six months of life which are highly prevalent in the developing countries (UNICEF, 2018; Lamberti, et al., 2011). Breastfeeding is an invaluable single most cost effective and efficient intervention for its pivotal potential of averting over 13% of all childhood deaths (Victora, et al., 2008; Rollins, *et al.*, 2016).

Exclusive breastfeeding has been documented by WHO as significant contributor in saving up to 820,000 lives annually. The advantages of breastfeeding are widely known but the levels of optimal practice remain low. Globally, only less than half (44%) of the infants are exclusively breastfed (UNICEF, 2021) with only 23 countries having achieved an Exclusive Breastfeeding (EBF) rate of 60% according to data from (UNICEF and WHO, 2017). In Africa, the rates of EBF are much lower than the global average ranging from 23.7% in Central Africa to 32.6% in West Africa, 53.5% in East Africa and 56.6% in Southern Africa (Adebayo et al., 2021) while

the Kenyan rates compares better at 60% (KNBS and ICF, 2023). This rate is a slight deccline fron 61% in 2014 and falls short of the World Health Assembly's recommendation of global coverage. Optimal breastfeeding is a critical pathway towards achieving many of the Sustainable Development Goals (SDGs) such as the SDG 2 on improving nutrition, SDG 3 on preventing child mortality and decreasing the risk of non-communicable diseases, and SDG 4 on supporting cognitive development and education. It also is a great enabler for SDGs corresponding to ending poverty, promoting economic growth and reducing inequalities (Habibi et al., 2018; UNICEF and WHO, 2019).

A cluster-randomized controlled trial to evaluate the associations between exclusive breastfeeding in Kenya and child's development in the first year of life found a significant positive association with child development in the areas of communication, gross motor, and problem-solving(Onyango et al., 2022).

2.2 Factors Affecting Breastfeeding

2.2.1Maternal related factors

There is growing evidence showing that maternal characteristics influence exclusive breastfeeding. Maternal level of income, marital status, education, and awareness of breastfeeding have been evidenced to associate with the compliance of WHO recommendations on breastfeeding.

A study on factors associated with EBF in Kenya that found that low rates of exclusive breastfeeding and overall short duration of breastfeeding are attributed to the high income levels (Masaba et al., 2021).Another study conducted to determine the factors that influence infant feeding practices in the south-western Uganda that concluded that **l**ow economic status is a crucial determinant of inadequate breastfeeding practices provided the recommendation of improvement of women's socioeconomic status to significantly contribute to reduction in childhood malnutrition through optimal feeding. (Scarpa et al., 2022). This provides a reason to undertake a study to determine the association of maternal level of income with exclusive breastfeeding among formally employed women in Kenya.

The maternal education level has been documented to influence exclusive breastfeeding. Mothers with college education level and above are believed to make be in apposition of making informed decisions for feeding their babies according to a cross sectional study among mothers with children less than six months of age attending Baringo County Referral Hospital, Kenya thus indicating a higher prevalence for EBF(Limo, 2018). Further to this, mothers with higher education levels are also associated with being able to access written materials from various sources and can easily understand when they are being trained and counselled on breastfeeding (Mekebo et al., 2022).

This concurs with an analysis of the 2019 Ethiopian Mini Demographic Health Survey (EMDHS) that concluded that the maternal level of education was significantly associated with EBF practice(Laksono et al., 2021), and a systematic review in Kenya on the factors that affect WHO breastfeeding recommendation that revealed that exclusive breastfeeding is positively influenced by women's level of education. Further, a cross sectional study to establish breastfeeding practices among mothers with infants aged 0–6 months in Kibera slum concluded that women who are knowledgeable tend to introduce other foods to their infants at the recommended time(Masaba et al., 2021). This was similar to a cross sectional study to assess the determinants and prevalence of EBF among formally working mothers in Kiambu County, Kenya (Watetu, 2022).

The Kenya Employment Act, 2007 provides for 14 days of paid paternity leave for the fathers to provide support for the new mothers thus providing a view that marital status is a maternal related factor of interest as it associates varyingly with the practice of breastfeeding exclusively. A cross- sectional study conducted to determine factors influencing the knowledge and practice of EBF among breastfeeding mothers in Ahero Sub County, Kenya indicated marital status as one of the factors influencing breastfeeding (Masaba et al., 2021).

The government of Kenya has adopted a number of strategic interventions aimed at increasing awareness and knowledge of breastfeeding in consolidation of efforts to improve EBF rates. These include the Baby Friendly Hospital Initiative (BFHI), Baby Friendly Community Initiative (BFCI) and Mother-to-Mother Support groups. Awareness on the benefits that may accrue from breastfeeding exclusively for first six months has been evidenced as a strong contributor of

exclusive breastfeeding as evidenced by a cross-sectional study in Wajir County, Kenya (Mohamed et al., 2020). In Kenya, findings from a cross-sectional study on determinants of maternal awareness, outcome expectancies and beliefs on the practice of exclusive breastfeeding in Kisumu showed that inadequate maternal awareness and knowledge has a negative impact on the actualization of exclusive breastfeeding (Gewa, et al., 2016). In the contrary, a study conducted in Kenya revealed that maternal knowledge of breastfeeding was not associated with the practice of EBF (Mohamed et al., 2018) implying that other factors may contribute to the practice of breastfeeding. These studies show that maternal awareness of breastfeeding is an important factor in attaining exclusive breastfeeding thus warranting a study to determine if there is a similar association of maternal awareness and breastfeeding among formally employed women in Kenya.

2.2.2 Family Related Factors

The family is crucial in determining exclusive breastfeeding success as the members can provide different levels of support to the breastfeeding women including availing breastfeeding information, encouraging the mother to breastfeed, ensuring the mother has the basic needs, and offering practical help. Evidence from studies conducted in the world have shown that the family support system that include the husband, partner, grandmother, house help and other family members not only have an influence on the mother's decision making process of the of exclusive breastfeeding but also are important in determining the termination or continuation of breastfeeding for working mothers upon return to work(Ogbo et al., 2019; Magnano et al., 2021; Kossou et al., 2021).

A study by Ogbo in 2019 among Australian working women shown that exclusive breastfeeding for the first 6 weeks was associated with partner support. These results were similar to two separate systematic reviews whose breastfeeding outcomes was associated with increased partner support (Abbass-Dick et al., 2019; Tadesse et al., 2018). Another investigation on the practice of breastfeeding exclusively in the pastoralist community of Aysaita Woreda in Ethiopia attributed lack of optimum breastfeeding practices to inadequate support from family members, especially husbands. It further noted that family members need to provide financial support in addition to the physical, emotional and psychosocial support to enhance economic stability of the mother by creating a further enabling environment to support the practice of breastfeeding exclusively

(Tsegaye, et al., 2019). The study however did not provide sufficient evidence on the association of family support and exclusive breastfeeding among working women as the focus was on participants from remote and pastoralist community. A longitudinal observational study conducted to establish breastfeeding patterns in the first six months among first time mothers in Kenya found that some of the mothers were advised to supplement breast milk with other fluids and foods by family members and neighbours (Talbert et al., 2020). Thu, further support from other members of the family have shown to be associated to breastfeeding while other studies link societal and greater generational links are associated with support from grandmothers (Cameron et al., 2019).

These studies underscores the importance of a family in enhancing the practices of breastfeeding thus the recommendations of involving partners and other family members in breastfeeding promotion initiatives(Ratnasari et al., 2017).Therefore, this provides the basis for a study to determine the association of family support and EBF among working women attending MCH services at KNH.

2.2.3 Work Related Factors

The participation of women in the labor work force in low- and middle-income countries (LMICs) is steadily increasing along with more women moving to more formalized employment thus scaling the reproductive and productive roles which are often been in conflict (Adair et al., 2002). In Kenya, the rate of women in employment stands at 62.4% out of which 49.4% are employed to the national labour force (International Labour Organization (ILO), 2017, 2019) thus warranting studies to contribute to promotion of support for breastfeeding women to enhance their productivity. This shift has thus resulted to growing need for female employees need to be facilitated and accommodated as they choose to work and breastfeed.

At the workplace, breastfeeding women face numerous challenges that affect exclusive breastfeeding. Some experience short maternity leaves, lack of conducive designated space to breastfeed or express breast milk, long work schedules with minimal breaks, long distance between work and home, and inadequate flexibility of work schedules (Seabela et al., 2023; Vilar-Compte et al., 2021; Ickes et al., 2021;Wainaina et al., 2018). The laws by the government of Kenya providing for three-month paid maternity leave, and others mandating employers to set

up lactation stations with appropriate storage and refrigeration facilities, nursing breaks and flexible working schedules seek to promote breastfeeding through employer support but have been inadequately implemented.

Some of the workplace related factors influencing exclusive breastfeeding as identified in studies include inflexibility in the working hours, lack of creche facilities at or near the workplace, lack of a conducive environment for expressing and storing breastfeeding, inadequate days for maternity leave and fear over loosing job. The absence of the supportive environment for breastfeeding results in discontinuation of breastfeeding(Ickes et al., 2021; Seabela et al., 2023; Vilar-Compte et al., 2021; Wainaina et al., 2018).

A further review on how breastfeeding workplace interventions work also concluded that for effectiveness of support for breastfeeding there is need to create awareness on the available interventions for supporting working breastfeeding mothers, foster workplace culture changes, encourage manager/supervisor support, and allow breaks, space and facilities for expressing breast milk during the working schedule (Litwan et al., 2021). The study further highlights the need to have tailor-made interventions for the different workplace set ups as one-size-fits-all is not viable for the differences in socio-economic and demographic variables of the users. This is in concurrence with a cross sectional study undertaken in Ethiopia on breastfeeding cessation among employed women (Kebede et al., 2020b)

A cross sectional study conducted to assess the determinants and prevalence of exclusive breastfeeding among working mothers attending child welfare clinic at Kiambu Hospital, Kenya found that work and inadequate support from employers present the biggest challenges towards attaining EBF(Watetu, 2022) which concurs with another cross sectional study among formally employed mothers in Naivasha, Kenya that sought to determine whether workplace support for breastfeeding is positively associated with exclusive breastfeeding in Kenya that found 84.6% of women who had access to breastfeeding stations at the work were exclusive breastfeeding as compared to the mothers without such spaces (Ickes et al., 2022).

One of the initial Maternity Protection Conventions established by the International Labor Organization (ILO) about 100 years ago, recommends that a nursing woman is entitled to paid 90

days maternity leave and breastfeeding breaks upon return to work. Further, Convention 183 of 2000 provided recommendation for countries to enhance the paid maternity leave entitlement to 18. Without the implementation of these provisions, women are left with few choices of ensuring sustenance of breastfeeding as most cease breastfeeding as soon as they return to work immediately after child birth as a result of fear of losing their job and livelihood (UNICEF, 2017). Proper implementation of the Maternity protection recommendation is critical to supporting women to successfully combine and balance productive and reproductive roles while protecting women in the labor market from discrimination based on their reproductive role.

In Kenya, under the provisions of the Health Act, 2007, working women are entitled to only 90 days 14 days of paid maternity and Paternity leaves consecutively. This period falls short of the recommendation by the ILO and is inadequate to support exclusive breastfeeding. However, the implementation of this provision in among the informal sector is dire while its status of implementation within the formal sector is not well documented. This study thus seeks to determine the workplace related factors with exclusive breastfeeding among women working in formal sectors.

2.3 Knowledge Gap

A lot more focus has been on establishment of factors associated with breastfeeding in rural and in informal sectors while there is still limited information among women working in formal sector in Kenya. This therefore warrants a study on the association of maternal, family and workplace related factors with exclusive or non-exclusive breastfeeding among women working in the formal sector in Kenya.

On maternal related factors, there is equivocal association of socioeconomic, education level and marital status with exclusive or non-exclusive breastfeeding thus warranting a study on this area among the working mothers. It is also imperative to determine the association of exclusive breastfeeding and maternal awareness on breastfeeding among women working in formal sector. This is because decisions and choices on the exclusive or non-exclusive breastfeeding are led by various factors such as breastfeeding awareness.

There is limited evidence on the association of family support and exclusive breastfeeding among formally employed women thus warranting this study on determination of association of family related factors and exclusive breastfeeding among formally employed women in Kenya.

On workplace related factors, there is limited knowledge on their association with exclusive breastfeeding especially with the new legislation, policies and strategies on workplace support for breastfeeding. Therefore, findings of this study were to provide invaluable evidence to strengthen the implementation of support for breastfeeding at workplace initiatives thus enabling exclusive breastfeeding.

CHAPTER THREE
MATERIALS AND METHODS

3.1 Introduction

This chapter describes the methodology adopted for this study. It describes the study design, Study area and site, sample size determination and sampling procedure, data collection instruments and procedures, data management criteria, study findings presentations and dissemination, and ethical considerations.

3.2 Study Design

The study adopted a descriptive cross-sectional study design which was suitable as it is used to establishing associations between different variables and causal relationship, thus ideal for determining association of maternal, family and workplace related factors with the practice of exclusive breastfeeding. Data was collected at one point in time to determine the association of maternal, family and workplace related factors with exclusive breastfeeding among formally employed women who seek MCH services at KNH, Kenya. The study design is appropriate for this study as the findings may be generalized among formally employed women seeking MCH services.

3.3 Study Site

The study site was Kenyatta National Hospital (KNH) (Latitude: 1.3010° S, Longitude: 36.8072° E). It is on the immediate west of Upper Hill in Nairobi whose distance on the west of the City's Central Business District is approximate 3.5 Kilometers. It is currently the largest referral and teaching hospital in the country offering specialized services. It covers an area of 45.7 hectares within which it hosts other partner institutions.

KNH provides outpatient services covering a large number of Nairobi residents and referrals from other counties of various socio-economic status. The hospital has 50 wards, 24 out-patient clinics, 26 theatres, and an Accident & Emergency department. It has a bed capacity of 2,400 and attends to 949,000 inpatients and 800,000 outpatients annually. In 2020, according to the Child Health and Nutrition Information System (CHANIS) report 2,968 children 0-59 months were attended at the MCH clinic, including 684 children 0-6 months. Some of the services sought at the MCH clinic include family planning, immunization, growth monitoring, supplementation and

deworming.48% of the women with children attending the MCH clinic are in formal employment (Muathe, 2020).Kenyatta National Hospital provided a great catchment for formally employed women with a prevalence of 48% of formally employed women visit sting the MCH clinic as compared to 30.3% and 18.3% at Pumwani Maternity Hospital and Mama Lucy Kibaki Hospital respectively (Musaa, 2020; Njuki, 2020).

3.4 Sample Size and Sampling Procedure

3.4.1 Sample Size Calculation

KNH MCH clinic attended to 688children aged0-6 months in 2020 from the data viewed from MOH 711 form of the District Health Information System (DHIS) for aggregate reporting. 48% of the mothers with children attending the MCH are in formal employment (Muathe, 2020). Therefore, a sampling frame of 330 mothers in formal employment with children aged 0 – 6 months of age who attend MCH services at KNH was utilized.

Mugenda and Mugenda, 1999 recommends the use of the below Fisher's formula for a population of less than10,000.

$n = \frac{n0}{1+\frac{(n0-1)}{N}}$ Where,

n_0 = 384 is the specified sample size when the population is less than 10,000

n = the desired sample when the population is more than 10,000

N = the population size

Therefore,

$$n = \frac{384}{1 + \frac{(384-1)}{330}}$$

n=177.7, therefore178

The sample size for this study was178 mothers with children under the age 0 – 6 months. An additional 10% (17) was included to deal with the possibility of non-response thus the 195-sample size. Therefore, 195respondents were obtained from a sampling frame of 330mothers in formal employment attending MCH clinic at KNH.

3.4.2 Sampling Procedure

Purposive sampling was used to select Kenyatta National Hospital since it is the largest teaching and referral hospital in the Country. It is located at the capital city, Nairobi, accessible to an urban population that is likely to have working mothers. A study by Muathe, 2020 indicated that 48% of the mothers with children attending the Kenyatta National Hospital MCH clinic are in formal employment.

Systematic random sampling was used to select participants for the study at the KNH MCH clinic. A sampling factor was first determined by the formula N/n (330/195 =2). Every second mother to arrive at the clinic during the study period fitting the eligibility criteria and consented to the study was interviewed. This exercise was carried out during the clinic days until the target195 mothers were selected for their participation in the study in the month of August and September 2021.

3.4.3 Inclusion Criteria

The study included formally employed women with children 0 – 6 months who consented to the study.

3.4.4 Exclusion Criteria

The study excluded the following;

- Formally employed women with children above 6 months
- Formally employed women with children 0-6 months who were never breastfed
- Formally employed women with children 0-6 months who did not consent to the study.

3.5 Study Target Population

The population for this study was women with children aged 0 – 6 months working in formal employment seeking MCH services at Kenyatta National Hospital, Kenya. A study by Muathe in 2020 established that 48% women attending the MCH clinic were in formal employment.

3.6 Data Collection Instruments

To collect information for this study, a questionnaire for collecting information from the targeted participants that contained both closed and open-ended questions was administered was used. The questionnaire contained information on the following key indicators; maternal related factors such as socio-economic status, marital status, child spacing, maternal health problems and knowledge, attitude, experience and skills; family related factors such as family set up; spouse and other family members support; and workplace related factors such as flexibility of working hours, supervisor/workmates support, workplace feeding policies and workplace breastfeeding facilities. Questions on awareness of breastfeeding assessment were compiled from validated tools by WHO and CDC.

A perinatal history of the most recent pregnancy including health status, health-seeking behaviour, and health education on breastfeeding before and after birth while maternal awareness of breastfeeding was assessed with knowledge of at least one health benefit of breastfeeding.

3.7 Data Collection Procedures

The research assistant received adequate training on all aspects of the research to ensure that they were well prepared to undertake the data collection.

The study adopted a standardized questionnaire used in the assessment of infant and young child feeding practices by various entities in the world with specific modifications done to suit the study objectives.

The respondents were requested to sign consent for their participation before administration of the questionnaires. Quantitative data was collected through administration of a questionnaire to the selected mothers where the researcher and the research assistant used the questionnaires to ask and record responses from the mothers asked the questions to the mothers and record the responses as given by the mothers and translation of the questions into Kiswahili as standardized was done where necessary. The process of filling each of the questionnaires took 10 to 15 minutes. Filling of the questionnaires lasted between 10 to 15 minutes.

3.8 Validity of Instruments

Validity is the extent to which a data collection instrument is accurate in measuring what it is intended to measure (Saunders et al., 2009). Content validity is the degree to which the measurement device offers adequate coverage of questions being investigated (Dawson, 2009).Thus, for this study, content validity test was the most appropriate form of measuring validity of data collection instrument. Mugenda and Mugenda (2010) explain that usually, content validity is assessed using experts or professionals in a certain field. The opinions of human nutrition and research experts was sought thus helping in improving the quality of the study through identifying issues on the question content, wording correlation, and problems with sequencing. Information derived from the experts informed revision and modification of the questionnaire thereby enhancing validity towards improving overall quality of the study.

3.9 Reliability of instruments

Reliability is the extent to which a data collection instrument will yield consistent data or results after repeated trials (Mugenda & Mugenda, 2010). To ensure reliability of the research instrument, this study conducted a pre-test. Pre-testing is a small-scale study on a group which is parallel to the sample population (Saunders *et al.*, 2009). Orodho (2004) recommends that the sample to be used in a pre-test should be ten percent of the sample to be used in the main study. Therefore, 33 women with children aged 0 – 6 months working in formal employment seeking MCH services at Kenyatta National Hospital, Kenya were used for the pre-test one month prior to the main study. The participants in the pre-testdid not participate in the main study. The data collected was tested for internal consistency. Spearman brown's correlation coefficient was used as a measure. A correlation coefficient of 0.86 was found which was above the threshold (0.8) recommended by Saunders *et al.* (2009).

3.10 Data Management

This section outlines the data entry criteria, data analysis and study findings presentations.

3.10.1 Data Entry

Raw data from the questionnaires were entered into database constructed into SPSS Version 23. Data cleaning was done on completion of data entry and any inconsistencies resolved by further re-examination of the questionnaires. Coding was then done for all categorical variables while labels were attached to each code. Quality control was observed through verification of

questionnaires for completeness immediately after questionnaires was filled while missing information was clarified and gaps filled.

3.10.2 Data Analysis

Data was analyzed using SPSS Version 23 where an initial descriptive analysis was done to summarize the characteristics of all mothers in the study sample. An analysis of Mother's demographic profiles was done using measures of central tendencies summarized in frequency tables.

Statistical measures of correlation were used to establish the association between the Exclusive breastfeeding and mother, family and workplace related factors. Associations between the maternal, family and workplace factors with exclusive or non-exclusive breastfeeding was computed using Pearson's *chi* square setting confidence level at 95%. A *P* value of < 0.05 was used as the criterion for determining the statistical significance. Fisher's exact test was used to determine if there was a significant association between variables with cell counts of less than.

3.11 Study Findings Presentation

Presentation of the findings of this study has been done in the form of percentages with contextual information provided, use of tables and graphs to facilitate comparison and relationship of the different variables.

3.12 Study Results Dissemination

Thesis containing findings the study results was presented at the School of Public Health, Maseno University as a requirement for Partial fulfilment for the award of the Degree of Master of Public Health: Population Health and Epidemiology. The findings reflected in this thesis will additionally be published in peer review journals for future reference.

The study results were also disseminated to the KNH, Division of Nutrition and Dietetics of the Ministry of Health for use in the advocacy work and key decision making for supporting breastfeeding working women to balance between work and caring for their infants.

3.13 Ethical Considerations

Authorization to conduct the study was acquired from the UoN/KNH-ERC (University of Nairobi/ Kenyatta National Hospital Ethics Review Committee) and thereafter by the KNH

Research department. No sensitive personal data or any data pertaining participant's family or workplace was sought and any data registered was used in accordance with the purpose this study. The names of the respondents were included in the questionnaires only for reference during the interview sessions while confidentiality and anonymity were assured and maintained. Assurance on the use of the information as per the purpose of the study alone was given to the respondents and that the study design and its administration was designed in a way that would not cause any harm to them.

The participation in the study was on voluntary basis and the participants were allowed to withdraw their consent of participation at any time and without stating any particular reason. The selected participants who consented to the study were required to fill the informed written before administration of the questionnaire.

3.14 Data Analysis Matrix

Table 3:1 Data Analysis Matrix

Objectives	Variables	Nature of the Variable	Research Instruments	Statistical test and data presentation
1. To establish mother – related factors that associate with EBF among formally employed women seeking MCH Services at KNH;	Income levels Education level Marital status Maternal awareness on breastfeeding	Independent	Questionnaire	Descriptive statistics, Chi-square & Fisher's exact test
2. To determine family – related factors that associate with EBF among formally employed women seeking MCH Services at KNH; and	Spouse/ other household support	Independent	Questionnaire	Descriptive statistics, Chi-square & Fisher's exact test
3. To identify workplace – related factors that associate with EBF among formally employed women seeking MCH Services at KNH.	• Paid maternity leaves • Time off or flexible time • Designated Lactation station. • Designated storage facilities • Access to breastmilk expression equipment • Nursery or a nearby day-care • Organizational policy that stipulate support during lactation period. • Information on breastfeeding and options by employer	Independent	Questionnaire	Descriptive statistics, Chi-square & Fisher's exact test
	Exclusive Breastfeeding	Dependent	Questionnaire	Descriptive statistics

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter present results on factors associated with exclusive breastfeeding among formally employed women seeking Maternal and Child Health Services at Kenyatta National Hospital, Kenya. It includes results on bio data and exclusive breastfeeding. Also included are results on maternal related factors that associate with exclusive breastfeeding, family related factors that associate with exclusive breastfeeding and workplace related factors associate with exclusive breastfeeding.

4.2 Demographic Characteristics

Table 4.1 presents the participants demographic characteristics. This includes their marital status, education level and income level.

Table 4:2Mothers' Demographic Characteristics

Variable	Category	Frequency (N=195)	Percentage (%)
Age	20-25 Years	25	12.6
	26-35 Years	144	73.8
	36-45 Years	27	13.6
Marital status	Married	176	90.2
	Single/Separated	19	9.8
Education Level	Certificate	11	5.5
	Diploma	85	43.4
	Degree and Above	100	51.1
Income Level	<10,000	0	0
	10,000-20,000	14	7.4
	20,000-50,000	83	42.5
	50,000-100,000	75	38.5
	Over 100,000	23	11.7
Sex of the child	Male	97	49.5
	Female	98	50.5

Majority 73.8% (n=144) of the respondents in the study were aged between 26 and 35 years. The vast majority 90% (n=176) of the respondents in the study are married. As shown in Table 4.2, slightly above half 51.1% (n=100) have acquired a degree or post graduate degree while 43.4%

(n=85) have acquired a diploma. Results also indicate that 42.5% (n=83) had an income of between 20,000 and 50,000 while 38.5% (n=75) have an income of between 50,000 and 100,000. Results also indicate that slightly above half 50.5% (n=98) of the babies in the study were female while 49.5% (n=97) were male. The mean age of the babies was 6 months.

4.3 Breastfeeding Prevalence

Table 4.2 presents results on breastfeeding prevalence among participants.

Table 4:3 Breastfeeding

	Response	Frequency	Percent
Baby breastfed on breast milk in previous 24 hours (N=195)	Yes	110	56.4
	No	85	43.6
Reason for not breastfeeding (N=97)	Baby was unwell	16	16.7
	Mother unwell	24	24.7
	Had to go back to work	57	58.6
Intention to resume breastfeeding (N=97)	Yes	35	35.8
	No	62	64.2
Baby given liquid in previous 24 hours (N=195)	Yes	9	4.6
	No	186	95.4
Liquids given to baby (N=9)	Formula milk	5	53.3
	Medicine	4	46.7
Reason for giving baby liquids (N=9)	Baby gets hungry	3	33.3
	Mother not producing enough milk	2	13.3
	Advised by relatives/friends	4	40.0
	Advised by TBA	1	6.7
	To sooth stomach	1	6.7
Breastfeeding status (N=195)	Exclusive breastfeeding	104	53.5
	Non-Exclusive Breastfeeding	91	46.5

Slightly above half 56.4% (n=110) of the babies in this study had been breastfed in the previous 24 hours. When asked why they had not breastfed their babies, 58.6% (n=57) indicated that they had to go back to work, 24.7% (n=24) indicated that they were unwell while 16.7% (n=16) indicated that the baby was unwell. Among those who had not breastfed their babies in the previous 24 hours, majority 64.2% (n=62) indicated that they did not intend to resume breastfeeding. The vast majority 95.4% (n=186) indicated that they had not given their baby

other liquids in the previous 24 hours. Among those who had given their babies liquids in the previous 24 hours, slightly above half 53.3% (n=5) had used formula milk. Major reasons for why babies were given liquids included advise from relatives and friends and the fact that the baby got hungry as indicated by 40% (n=4) and 33.3% (n=3) respectively. Slightly above half 53.5% (n=104) were classified as having exclusively breastfed.

4.4 Maternal related Factors that Associate with EBF

The first objective of the study sought to establish the maternal related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. The results are presented in this section.

4.4.1 Respondents' EBF knowledge

4.4.1.1 Counselling on Breastfeeding

Respondents in the study were asked to indicate whether they had received counselling on breastfeeding. Results are presented in Table 4.3

Table 4:4: Counselling on Breastfeeding

Variable	Category	Frequency	Percentage
Received counselling on breastfeeding (N=195)	Yes	113	57.8
	No	82	42.2
Source of information on counselling (N=113)	Hospital	70	62.2
	At work	33	29.3
	Others	10	8.5

Table 4.3 shows at slightly above half 57.8% (n=113) had received counselling on breastfeeding. Of those who received counselling, the majority 62.2% (n=70) got the information from the hospital.

4.4.1.2 Respondents' EBF Awareness

To assess respondents' awareness on breastfeeding, a number of statements on breastfeeding were asked for the participants to respond whether they were true or false. whether they were true or false.

Table 4:5: Respondents' EBF knowledge

Responses to Exclusive Breastfeeding Knowledge questions	Correct Answers	Frequency (N=195)	Percentage (%)
Breastfeeding should be the first feed a baby is given after birth.	True	195	100.0
The baby should be put to the breast after more than one hour to allow the mother to rest	False	93	47.7
The first yellowish milk/colostrum should be fed to the baby	True	195	100.0
Breastmilk alone without even water can sustain the baby for six months	True	195	100.0
Breastfeeding protects the baby from illnesses	True	195	100.0
Expressed breastmilk should be fed to the baby when the mother is away	True	193	98.8
Breastfeeding helps the mother not to get pregnant	True	35	17.8
Semi-solid/solid foods should be introduced to the baby at six months of age	True	193	98.8
A mother can exclusively breastfeed a baby even if they are working	True	194	99.4

All 100% (n=195) of the respondents indicated that breastfeeding should be the first feed a baby is given after birth. A total of 47.7% (n=93) of the respondents disagreed that the baby should be put to the breast after more than one hour to allow the mother to rest. All 100% (n=195) of the respondents indicated that the first yellowish milk/colostrum should be fed to the baby. All 100% (n=195) of the respondents indicated that breast milk alone without even water can sustain the baby for six months. In addition, all 100% (n=195) of the respondents indicated that breastfeeding protects the baby from illnesses. The vast majority 98.8% (n=193) of the respondents indicated that expressed breast milk should be fed to the baby when the mother is away. Only 17.8% (n=35) of the respondents agreed that breastfeeding helps the mother not to get pregnant. The vast majority 98.8% (n=193) of the respondents agreed that semi-solid/solid foods should be introduced to the baby at six months of age. Similarly, 99.4% (n=194) of the respondents agreed that a mother can exclusively breastfeed a baby even if they are working. To determine the level of knowledge among respondents, participants who correctly responded to 5 or more of the items in Table 4.5, were classified as being knowledgeable. Majority of the respondents 94.2% (n=184) were classified as having knowledge.

Figure 4:2Respondents' EBF knowledge

4.4.3 Association of Maternal related Factors with EBF

Chi-square analysis were carried out between maternal related factors and exclusive breastfeeding.

Table 4:6: Association of Maternal related Factors with EBF

		EBF		
		Yes (N=104)	**No (n=91)**	**Chi-square**
Age	Young (<35 years)	92	77	$\chi2$ =0.6213, df =1, p=0.123
	Old (>35 years)	12	14	
Marital status	Married	96	80	$\chi2$ = 1.066, df = 1, p=0.121
	Unmarried	8	11	
Education	Low (certificate & diploma)	53	42	$\chi2$ = 0.4490, df = 1, p=0.194
	High (degree & above)	51	49	
Income	Low (<50,000)	53	44	$\chi2$ = 0.1322, df = 1, p=0.307
	High (>50,000)	51	47	
Received counselling on breastfeeding	Yes	59	53	$\chi2$ = 0.0453, df = 1, p=0.355
	No	45	38	
EBF Knowledge	Yes	59	49	$\chi2$ = 0.1634, df = 1, p=0.278
	No	45	42	

***Significant at 95% CI

Results in Table 4.5 show that there was no significant association ($\chi 2$ =0.6213, df =1, p=0.123) between age and exclusive breastfeeding. Similarly, marital status ($\chi 2$ = 1.066, df = 1, p=0.121), education ($\chi 2$ = 0.4490, df = 1, p=0.194) and income ($\chi 2$ = 0.1322, df = 1, p=0.307) were not significantly associated with exclusive breastfeeding. Results also showed that the association of having received counselling on exclusive breastfeeding on non-exclusive breastfeeding was not significant at ($\chi 2$ = 0.1634, df = 1, p=0.278)

4.5 Family Related Factors Associated with EBF Practice

The second objective of the study sought to determine the family related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. The results are presented in this section.

4.5.1 Family Related Factors

The researcher sought to find out the kind of family support the respondents received. The results are presented in Table 4.6.

Table 4:7 Family Related Factors

	Category	Frequency	Percentage
People who stay with respondent	House help	66	33.8
	Father	100	51.1
	Grandmother	5	2.8
	Other relatives	24	12.3
Members who stay in house influence how child is fed	Yes	104	53.2
	No	91	46.8
Person who influences feeding of child	Father	91	46.8
	Grandmother	29	15.1
	Others	74	38.2
Type of influence received	Advice on nutrition	71	36.6
	Encourage EBF	124	63.4
Person who feeds child when mother is away	Grandmother	104	53.5
	House help	69	35.4
	others	22	11.1
Type of milk baby breastfed on when mother is away	Expressed milk	118	60.6
	Formula	67	34.5
	Animal	10	4.9

Results in Table 4.6 show that 51.1% (n=100) of the respondents lived with the father of the baby while 33.8% (n=66) lived with the house help. Slightly above half 53.2% (n=104) of the respondents indicated that people who live with the respondent influenced how the child was fed. Results show that 46.8% (n=91) of the respondents were influenced by the father of the baby while 38.2% (n=74) were influenced by other relatives. Majority 63.4% (n=124) of those who lived with the respondent encouraged exclusive breastfeeding. Majority 53.5% (n=104) of the babies were fed by the grandmother when the respondent was away. When the respondent was away, 60.6% (n=118) of the babies were breastfed expressed milk.

4.5.2 Association of Family Related Factors with EBF

Chi-square analysis was conducted between family support and breastfeeding.

Table 4:8 Association of Family Related Factors with EBF

		N	Yes	No	x2	Df	p-value
People who stay with respondent	House help	110	31	79	4.591	3	0.204
	Father	166	58	108			
	Grandmother	9	5	4			
	Other relatives	40	10	30			
Members who stay in house influence how child is fed	Yes	173	88	85	60.51	1	0.000***
	No	152	16	136			
Person who influences feeding of child	Father	152	69	83	42.66	2	0.000***
	Grandmother	49	22	27			
	Others	124	13	111			
Type of influence received	Advice on nutrition	119	57	62	21.8	1	0.000***
	Encourage EBF	206	47	159			
Person who feeds child when mother is away	Mother	174	59	115	3.6849	2	0.158
	House help	115	30	85			
	others	36	15	21			
Type of milk baby breastfed on when mother is away	Expressed milk	197	59	138	1.0129	2	0.602
	Formula	112	39	73			
	Animal	16	6	10			

***Significant at 95% CI

Results in table 4.7 show that there was a significant relationship ($\chi 2 = 60.51$, df =1, $p<0.01$). between members who stay in house influence how child is fed and exclusive breastfeeding. There was a significant relationship ($\chi 2 = 42.66$, df =2, $p<0.01$) between person who influences feeding of child fed and exclusive breastfeeding. There was also a significant relationship ($\chi 2$

=21.80, df =1, p<0.01) between type of influence received and exclusive breastfeeding. These results demonstrate that there was a significant relationship between family support and exclusive breastfeeding.

4.6 Workplace Related Factors Associated with EBF Practice

The third objective of the study sought to identify the workplace related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. The results are presented in this section.

4.6.1 Workplace Support For Breastfeeding

Table 4.8 presents results on workplace support for breastfeeding for the respondents.

Table 4:9 Workplace Support for Breastfeeding

Variable	Category	Frequency (N=195)	Percentage (%)
Working Hours	6-8 Hours	173	88.5
	> 8 Hours	22	11.5
Maternity Leave	Below 3 Months	14	7.3
	Above 3 Months	181	92.7
Given paid maternity leave	Yes	193	99.0
	No	2	1.0
Allowed to extend maternity leave	Yes	150	77.0
	No	45	23.0
Gets time off or flexible time to express breast milk	Yes	176	90.1
	No	19	9.9
Designated space to express breast milk.	Yes	128	65.4
	No	67	34.6
Designated refrigerator to store the breastmilk	Yes	94	48.2
	No	101	51.8
Access to a breast pump to express breast milk	Yes	4	2.1
	No	191	97.9
Access to a nursery or a nearby day-care available for breastfeeding children.	Yes	60	30.9
	No	135	69.1
Organization has a policy that stipulate support during lactation period.	Yes	96	49.2
	No	99	50.8
Gets information regarding breastfeeding options by employer upon your return to work after maternity leave.	Yes	47	24.1
	No	148	75.9
Breastfeeding female employees confident that they will not be treated less favorably as a result of being pregnant or breastfeeding.	Yes	192	98.4
	No	3	1.6

Majority 88.5% (n=173) of the respondents worked for between 6 and 8 hours. The vast majority 92.7% (n=181) of the respondents were given a maternity leave of over 3 months. For the vast majority of respondents 99% (n=193) maternity leave was paid. Majority 77% (n=150) of the respondents were allowed to extend maternity leave. The vast majority 90.1% (n=176) got time off to express breast milk. Majority 65.4% (n=128) of the respondents indicated that they had a designated place to express breast milk. However, 51.8% (n=108) of the respondents indicated that there was no refrigerator to store breast milk. Similarly, the vast majority 97.9% (n=191) of the respondents did not have access to a breast pump to express breast milk. The results show that majority 69.1% (n=135) of the respondents did not have access to a nursery or a nearby day-care available for breastfeeding children. Majority 75.9% (n=148) of the respondents did not also get information regarding breastfeeding options by employer upon their return to work after maternity leave. The vast majority 98.4% (n=192) of the respondents also indicated that breastfeeding female employees were confident that they will not be treated less favourably as a result of being pregnant or breastfeeding. Respondents in the study were also asked to indicate work related changes the organization allowed for lactating mothers. The responses are presented in Table 4.9

Table 4:10 Work-Related Changes Allowed for Lactating Mothers

Work-Related Changes Allowed for Lactating Mothers	Frequency	Percentage (%)
Flexi – time (arrive to work late and/or leave work early as agreed)	150	95.7
Home based work	8	5.3
Job-sharing	7	4.3
Lighter tasks	7	4.3

Majority 81.5% (n=157) indicated that there were changes made at the workplace to accommodate lactating mothers. According to the vast majority 95.7% (n=150) who indicated that there were changes, indicated that flexi-time was allowed for lactating mothers.

4.6.2 Association of Work Related Factors with EBF

Chi-square analysis was carried out between work related factors and exclusive breastfeeding. For variables with cell counts less than 5, Fisher's Exact Test was used.

Table 4:11 Association of Work-Related Factors with EBF

		EBF				
		Yes (N=104)	No (n=91)	□ 2	Df	Sig.
Working Hours	6-8 Hours	93	79	0.08	1	0.3885
	> 8 Hours	11	11			
Maternity Leave	Below 3 Months	8	6	0.24	1	0.3123
	Above 3 Months	96	84			
Given paid maternity leave	Yes	103	89			0.829
	No	1	1			
Allowed to extend maternity leave	Yes	81	68	0.323	1	0.2848
	No	23	22			
Gets time off or flexible time to express breast milk	Yes	94	81	0.002	1	0.4803
	No	10	9			
Designated space to express breast milk.	Yes	66	61	0.505	1	0.2386
	No	38	30			
Designated refrigerator to store the breastmilk	Yes	47	46	1.266	1	0.1303
	No	57	44			
Access to a breast pump to express breast milk	Yes	3	1			0.687
	No	101	89			
Access to a nursery or a nearby day-care available for breastfeeding children.	Yes	34	26	0.696	1	0.2021
	No	70	64			
Organization has a policy that stipulate support during lactation period.	Yes	50	46	0.351	1	0.2769
	No	54	44			
Gets information regarding breastfeeding options by employer upon your return to work after maternity leave.	Yes	27	19	1.219	1	0.1348
	No	76	71			
Breastfeeding female employees confident that they will not be treated less favorably as a result of being pregnant or breastfeeding.	Yes	102	89			0.245
	No	2	1			

***Significant at 95% CI

There was no significant association ($\chi 2$ =0.08, df =1, p=0.388) between working hours and exclusive breastfeeding. Maternity leave was also not significantly associated ($\chi 2$ =0.24, df =1, p=0.312) with exclusive breastfeeding. There was no statistically significant association between being given paid maternity leave and exclusive breastfeeding (p=0.829). Being allowed to extend

maternity leave showed no significant association ($\chi 2$ =0.323, df =1, p=0.284) with exclusive breastfeeding. Getting time off or flexible time to express breast milk also showed no significant association ($\chi 2$ =0.002, df =1, p=0.480) with exclusive breastfeeding. Designated space to express breast milk ($\chi 2$ =0.505, df =1, p=0.238) as well as designated refrigerator to store the breastmilk ($\chi 2$ =1.266, df =1, p=0.131) had no significant association with exclusive breastfeeding. There was no statistically significant association between access to a breast pump to express breast milk and exclusive breastfeeding (p=0.687). Similarly, access to a nursery or a nearby day-care available for breastfeeding children ($\chi 2$ =0.696, df =1, p=0.202) had no association with exclusive breastfeeding. There was no significant association ($\chi 2$ =0.351, df =1, p=0.276) between organisation policy and exclusive breastfeeding. Similarly, getting information regarding breastfeeding options by employer upon return to work after maternity leave was not significant ($\chi 2$ =1.219, df =1, p=0.134). Breastfeeding female employees confident that they will not be treated less favourably as a result of being pregnant or breastfeeding was also not significant (p=0.245).

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion of the results of the study. The researcher's conclusion and recommendations are also presented.

5.2 Discussion

5.2.1 Maternal related Factors that Associate with EBF

The first objective of the study sought to establish the maternal related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. The study found that the vast majority 90.2% (n=176) of the respondents in the study were married. Slightly above half 51.1% (n=100) had acquired a degree or post graduate degree. Results also indicated that 42.5% (n=83) had an income of between 20,000 and 50,000 while 38.5% (n=125) had an income of between 50,000 and 100,000. The vast majority of the respondents 94.2% (n=184) of the respondents were classified as having knowledge. However, chi-square analysis showed that no maternal related factor was associated with exclusive breastfeeding nor with non – exclusive breastfeeding. The results were in disagreement with a study on factors associated with EBF in Kenya that found that low rates of exclusive breastfeeding and overall short duration of breastfeeding are attributed to the high income levels (Masaba et al., 2021). It further is in disagreement with a study conducted ion Uganda to determine the factors infant feeding practices in the south-western Uganda that concluded that low economic status is a crucial determinant of inadequate breastfeeding practices (Scarpa et al., 2022).

These differences may be attributed to the nature of the target population whereby most studies involved both employed and unemployed women while this study was limited to employed women.

5.2.2 Family Related Factors Associated with EBF

The second objective of the study sought to determine the family related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. Slightly above half 53.2% (n=104) of the respondents indicated that people who live with the

respondent influenced how the child was fed. Majority 61.3% (n=124) of those who lived with the respondent encouraged exclusive breastfeeding. Majority 53.5% (n=104) of the babies were fed by the grandmother when the respondent was away. The study found that there was a significant relationship ($\chi 2 = 60.51$, df =1, $p<0.01$) between members who stay in house influence how child is fed and exclusive breastfeeding. There was a significant relationship ($\chi 2 = 42.66$, df =2, $p<0.01$) between person who influences feeding of child fed and exclusive breastfeeding. There was also a significant relationship ($\chi 2 = 21.80$, df =1, $p<0.01$) between type of influence received and exclusive breastfeeding. These results demonstrate that there was a significant relationship between family support and exclusive breastfeeding.

The finding that the association between family support and the practice of exclusive breastfeeding or non-exclusive breastfeeding was significant can be attributed to the beneficial advice and encouragement a mother receives. A woman who is encouraged to breastfeed is more likely to practice exclusive breastfeeding especially when it is done by people who are close to her. In this study, majority of respondents who lived with someone encouraged them to breastfeed exclusively. This therefore explains the high rates of exclusive breastfeeding in this study.

Various studies have proven that adequate family support goes a long way in supporting the practice of optimal breastfeeding by providing an enabling environment for working mothers. This agrees with an investigation on the practice of breastfeeding exclusively in the pastoralist community of Aysaita Woreda in Ethiopia that attributed lack of optimum breastfeeding practices to inadequate support from family members, especially husbands. It further noted that family members need to provide financial support in addition to the physical, emotional and psychosocial support to enhance economic stability of the mother by creating a further enabling environment to support the practice of breastfeeding exclusively (Tsegaye, et al., 2019).

Another longitudinal observational study conducted to establish breastfeeding patterns in the first six months among first time mothers in Kenya found that some of the mothers were advised to supplement breastmilk with other fluids and foods by family members and neighbours (Talbert et al., 2020).

5.2.3 Workplace Related Factors Associated with EBF

The third objective of the study sought to determine the association of workplace related factors with exclusive breastfeeding among formally employed women seeking MCH services at KNH. The study found that the vast majority 92.7% (n=181) of the respondents were given a maternity leave of over 3 months. For the vast majority of respondents 99% (n=193) maternity leave was paid. Majority 81.5% (n=97) indicated that there were changes made at the workplace to accommodate lactating mothers. However, 51.8% (n=101) of the respondents indicated that there was no refrigerator to store breast milk. Similarly, the vast majority 97.9% (n=191) of the respondents did not have access to a breast pump to express breast milk. The results showed that majority 69.1% (n=135) of the respondents did not have access to a nursery or a nearby day-care available for breastfeeding children. However, chi-square analysis showed that no work-related factor was significantly associated with exclusive breastfeeding nor with non – exclusive breastfeeding at 95% CI.

This result of this study provides varying opinion from a review on how breastfeeding workplace interventions work that concluded that for effectiveness of support for breastfeeding there is need to create awareness on the available interventions for supporting working breastfeeding mothers, foster workplace culture changes, encourage manager/supervisor support, and allow breaks, space and facilities for expressing breast milk during the working schedule (Litwan et al., 2021). This was in concurrence with a cross sectional study undertaken in Ethiopia on breastfeeding cessation among employed women (Kebede et al., 2020b), and a cross sectional study conducted to assess the determinants and prevalence of exclusive breastfeeding among working mothers attending child welfare clinic at Kiambu Hospital, Kenya that found that work and inadequate support from employers present the biggest challenges towards attaining EBF (Watetu, 2022) which concurs with another cross sectional study among formally employed mothers in Naivasha, Kenya that sought to determine whether workplace support for breastfeeding is positively associated with exclusive breastfeeding in Kenya that found 84.6% of women who had access to breastfeeding stations at the work were exclusive breastfeeding as compared to the mothers without such spaces (Ickes et al., 2022).

5.3 Conclusion

The first objective of the study sought to establish maternal related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. Maternal related factors were not significantly associated with the practice of exclusive breastfeeding and non-exclusive breastfeeding.

The second objective of the study sought to determine family related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. Family related factors were significantly associated with the practice of exclusive breastfeeding and non-exclusive breastfeeding among formally employed women. Specifically, family support was an enabling factor for exclusive breastfeeding. Majority of the respondents in the study had family members and relatives who encouraged them to exclusively breastfeed.

The third objective of the study sought to identify workplace related factors that associate with exclusive breastfeeding among formally employed women seeking MCH services at KNH. Workplace related factors were not significantly associated with exclusive breastfeeding and non-exclusive breastfeeding among formally employed women seeking MCH services at KNH.

5.4 Recommendations from the Current Study

Based on the conclusions above, the researcher recommends that;

i.) Maternal awareness on the importance of exclusive breastfeeding was suboptimal. This study thus calls for enhanced investment towards trainings, awareness sessions to the mothers and the support systems such as the health workers.

ii.) The study found that family support was an enabling factor for exclusive breastfeeding in this study. This calls for more community sensitization on breast-feeding so that they can encourage their friends and family members to exclusively breastfeed.

iii.) The study found that majority of workplaces had a designated space to express breast milk but there was no designated refrigerator to store the breastmilk. There is therefore a need for employers to strengthen their measures to support breastfeeding employees including by introducing refrigerators in their place of work to assist mothers in storage of expressed milk.

5.5 Recommendations for Further Research

The study recommends the following studies be carried out to deepen our understanding of exclusive breastfeeding among formally employed women.

i.) A qualitative study on experiences of breastfeeding among formally employed women

ii.) A study on male and child careers involvement in exclusive breastfeeding among formally employed women

iii.) Comparative studies of nutrition status of infants exclusively breasted versus those fed on breast milk substitutes.

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APPENDICES

Appendix I: Participant Information and Informed Consent Form for Enrollment in the Study

Participant Information for Enrolment in the Study

Title of Study: Factors associated with exclusive breastfeeding among formally employed women seeking Maternal and Child Health Services at Kenyatta National Hospital, Kenya.

I am Caroline Kawira Gitari, a student of the School of Public Health and Community Development, Department of Public Health at Maseno University,

Dear Participant,

I am undertaking a study on Factors associated with exclusive breastfeeding among formally employed women seeking Maternal and Child Health Services at Kenyatta National Hospital, Kenya as part of the requirement for the award of the Degree of Master of Public Health in Population Health and Epidemiology.

I am interviewing formally employed women with children aged 0 – 6 months attending the KNH MCH clinic. The purpose of the interview is to find out the factors associated with exclusive breastfeeding among formally employed women seeking Maternal and Child Health Services at Kenyatta National Hospital, Kenya. Participants in this research study will be asked questions about the maternal, family and workplace related factors and how they associate with exclusive breastfeeding. There will be approximately 195 participants in this study randomly chosen. We are asking for your consent to consider participating in this study.

Your decision to participate is entirely voluntary and you may withdraw from the study at any time without necessarily giving a reason for your withdrawal. Your refusal to participate in the research will not affect the services you are entitled to in this health facility or other facilities.

This study has approval by The Kenyatta National Hospital-University of Nairobi Ethics and Research Committee.

If you agree to participate in this study, you will be interviewed by a trained interviewer in a private area where you feel comfortable answering questions. The interview will last approximately 10 minutes and we will keep everything you tell us as confidential as possible to safe guard your privacy. We will use a code number to identify you in a password-protected computer database and will keep all of our paper records in a locked file cabinet. If there are any questions you do not want to answer, you can skip them. You have the right to refuse the interview or any questions asked during the interview.

The study information will be useful in the ongoing advocacy for workplace support of exclusive breastfeeding by the Ministry of Health and other stakeholders. It will also contribute to the pool of evidence for use in social mobilization of the community, family and workplace structures that are conducive for breastfeeding support for the mothers working in the formal sectors. This

will be contributing to the overall goal of attaining universal coverage on exclusive breastfeeding thus enhancing child survival, growth and development.

If you have further questions or concerns about participating in this study, please call or send a text message to the study staff at the number below.

For more information contact: Caroline Kawira on Mobile Number: 0725249573 or email: carolinekawira@gmail.com

Or KNH-UoN ERC Secretary Contact telephone numbers 2726300 ext. 44102, email uonknh_erc@uonbi.ac.ke

Participant Statement of Consent

I have read this consent form or had the information read to me. I have had the chance to discuss this research study with a study counselor. I have had my questions answered in a language that I understand. The risks and benefits have been explained to me. I understand that my participation in this study is voluntary and that I may choose to withdraw any time. I freely agree to participate in this research study. I understand that all efforts will be made to keep information regarding my personal identity confidential. By signing this consent form, I have not given up any of the legal rights that I have as a participant in a research study.

I agree to participate in this research study: Yes No

I Participant printed name: _____

Participant signature / Thumb stamp _____ Date _____

Researcher's statement

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has willingly and freely given his/her consent.

Researcher 's Name: _____ Date: _____
Signature: _____

Role in the study: _____

Appendix II: Study Eligibility Criteria Checklist

I. Study Information

Title:	Factors associated with Exclusive breastfeeding Practices among formally employed women seeking Maternal and Child Health Services at Kenyatta National Hospital
Number:	
Investigator:	

II. Subject Information:

Subject Name:

III. Eligibility/ Exclusion Criteria

Inclusion Criteria	Yes	No
Mother above 18 years old		
Mother with child 0 – 6 Months		
Mother in formal employment (Paid Annual, Maternity & Sick Leave, NHIF, NSSF, PAYE)		
Mother has consented to the study		
Exclusion Criteria	**Yes**	**No**
Mothers of special children such as preterm children, multiple gestations, birth defect or chronic disease and HIV positive women		
Mother is mentally unstable		

IV. Statement of Eligibility

This subject is ☐ **eligible** / ☐ **ineligible** for participation in the study.

Signature:	Date:
Printed Name:	

Appendix III: Questionnaire for the interview schedule

Factors associated with Exclusive breastfeeding Practices among formally employed women sectors seeking Maternal and Child Health Services at Kenyatta National Hospital**.**

ADMINISTRATIVE DETAILS

Questionnaires ID NO…… Name of the interviewer…….
Code of Respondent…….. Date of interview……..
Time started……... Time finished…….
Questionnaire checked…… ……

SECTION A: BABY'S BIODATA

A1. Child's ID NO……. A2. Name of baby…….

A3. Sex: 1- Male ☐ 2-Female ☐ A4. Date of birth……..

A5. Age of baby in weeks/Months……

SECTION B: MATERNAL RELATED FACTORS

B1. Age of mother in years……..

B2. Marital status: ☐1- Married ☐2- Single ☐3 - Divorced ☐4- Separated ☐5- Widow

B3. Level of education:

☐1- Non formal education ☐2- secondary level education
☐ - Adult education only ☐ 6-Certificate level training
☐ 3- Completed primary ☐ 7-Diploma level education
☐ 4- Not completed primary ☐ 8- Degree level education
☐ 9- Post Graduate level education

B4. Level of Income:

Please indicate the level of income earned by the household in last one month.

☐ Less than 10,000 ☐10,000 – 20,000 ☐20,000- 50,000

☐50,000- 100,000 ☐100,000 – 200,000 ☐200,000 – 500,000
☐Over 500,000

B5. Maternal Awareness on exclusive breastfeeding

B5.1. Did you receive any counseling/information on breastfeeding/infant feeding on what to do upon return to work?

☐ 1-Yes ☐ 2- No

B5.2. If YES, what was the source of the information/counseling?

☐ 1-Hospital/ health centre ☐ 2-Traditional birth attendant

☐ 3-Family/friends/relatives ☐ 4-Media (radio, television, newspapers, magazines and internet) ☐ 5- At work
☐ 6-Other (specify)……

B5.3. At what point did you receive the information on breastfeeding?
☐ 1-Before delivery during antenatal clinics ☐ 2-At the time of delivery
☐ 3-After delivery before leaving the hospital ☐ 4-During post-natal clinics
B5.4 Read the statement to the mother and indicate her response in the appropriate box.

Statement	**YES**	**NO**
B5.4.1. Breastfeeding should be the first feed a baby is given after birth.	☐	☐
B.5.4.2.The baby should be put to the breast after more than one hour to allow the mother to rest	☐	☐
B5.4.3. The first yellowish milk/colostrum should be fed to the baby	☐	☐
B5.4.4. Breastmilk alone without even water can sustain the baby for six months	☐	☐
B5.4.5.Breastfeeding protects the baby from illnesses	☐	☐
B5.4.6.Expressed breastmilk should be fed to the baby when the mother is away	☐	☐
B5.4.7.Breastfeeding helps the mother not to get pregnant	☐	☐
B5.4.8. Semi-solid/solid foods should be introduced to the baby at six months of age	☐	☐
B5.4.9. A mother can exclusively bresstfeeding a baby even if they are working	☐	☐

SECTION C: FAMILY SUPPORT
C1. Who stays with you in your house? (**Tick all that apply**)

☐ 1-Househelp ☐ 2-Father ☐ 3- Grandmother
☐ 4- other relatives ☐ 5-Others (Specify) ……
C2. Do the members stated above influence how you feed your children?
☐ 1-Yes ☐ 2-No
If yes, who? …… and how? ……..
C3. Who feeds your baby while away at work?

☐ 1-Househelp ☐ 2-Father ☐ 3- Grandmother
☐ 4- Other relatives ☐ 5-Others (Specify) ……
C4. What type of milk does your baby feed on while you are away at work?

☐ 1-Expresses Breastmilk ☐ 2- Breast milk Supplements
☐3- Animal Milk ☐ Others (Specify) ……
C5. What other support do you receive from your family in terms of caring for the baby while away? (List all responses)
……
……

SECTION D: WORKPLACE SUPPORT FOR BREASTFEEDING

D1. How many hours do you work in a day?

☐ Less than 6 Hours ☐ 6-8 hours ☐ 8 -10 Hours

☐ 10 – 12 Hours ☐ More than 12 Hours

D2. Were you given paid maternity leave when you delivered your baby?

☐ 1 – Yes ☐ 2- No

D2. 1. If yes, how long was your maternity leave?

☐ 1-one month ☐ 2-two months ☐ 3- three months

☐ 4-four months ☐ 5-more than four months

D2.1.1 Does your organization allow you to extend your maternity leave beyond the stipulated time?

☐ 1- Yes ☐ 2- No

D3. Do you get time off or flexible time at the work place to express breast milk?

☐ 1-Yes ☐ 2-No

D4: Is there a separate room or a designated space at your workplace to express breast milk?

☐ 1-Yes ☐ 2-No

D5. Is there a separate or designated refrigerator at your work place to store the breastmilk?

☐ 1-Yes ☐ 2-No

D6. Do you have access to a breast pump at your work place to express breast milk?

☐ 1-Yes ☐ 2-No

D7. Do you have access to a nursery or a nearby daycare available for breastfeeding children?

☐ 1-Yes ☐ 2-No

D8. Does your organization have a policy that stipulate support during lactation period?

☐ 1-Yes ☐ 2-No

D8.1. If yes, what work related changes does your organization allow for lactating mothers? (**Tick all that applies**)

☐1- Flexi – time (arrive to worklate and/or leave work earlyas agreed)

☐2- Home basedwork for a few weeks beforeresuming full-time work canbe allowed

☐3- Job-sharing

☐4- Lighter tasks

D8.2 For how long, are these work-related changes allowed?

D9. Do you get information regarding breastfeeding options by employer upon your return to work after maternity leave?

☐ 1-Yes ☐ 2-No

D10. Are breastfeeding female employees confident that they will not be treated less favorably as a result of being pregnant or breastfeeding?

☐ 1-Yes ☐ 2-No

If no why? ……

D11. Mention three important factors affecting breastfeeding practices, when it comes to work?

1. …….. 2. ……..

3. ……..

SECTION E: BREASTFEEDING PRACTICES

E1. Has the baby breastfed/ been fed on breastmilk in the last 24 hours?

☐1-Yes ☐ 2- No ☐**If NO go to question E2 and E3**

E2. Why did you not breastfeed/ fed your baby with breastmilk?

☐ 1-The baby has been unwell ☐ 2- Had to go back to work
☐ 3- Mother unwell ☐4-Other reason(specify)……

E3. Do you intend to resume breastfeeding?

☐ 1-Yes ☐ 2- No ☐ 3-Not sure

E4. Have you given the baby any liquid/s in the last 24 hours?

☐ 1-Yes ☐ 2-No ☐ 3-Not sure

E5. If yes, what liquids/s have you given?

☐1- Glucose water ☐ 2- Plain boiled water ☐ 3- Formula milk
☐ 4-other milk ☐ 5- Medicine ☐ 6-Other (specify)……..

E6. Why did you give the baby these liquids/solids? (Tick all applicable responses)

☐ 1- Baby gets hungry ☐ 2- Mother not producing enough milk
☐ 3-Advised by relatives/friends ☐ 4-Advised by health care providers
☐ 5-Advised by TBA ☐ 6-To sooth stomach pain
☐ 7-Other (specify)……...

E7. Have you given the baby any solid or semi-solid foods in the last 24 hours?

☐ 1-Yes ☐ 2-No

E8. If YES, name the foods given ……

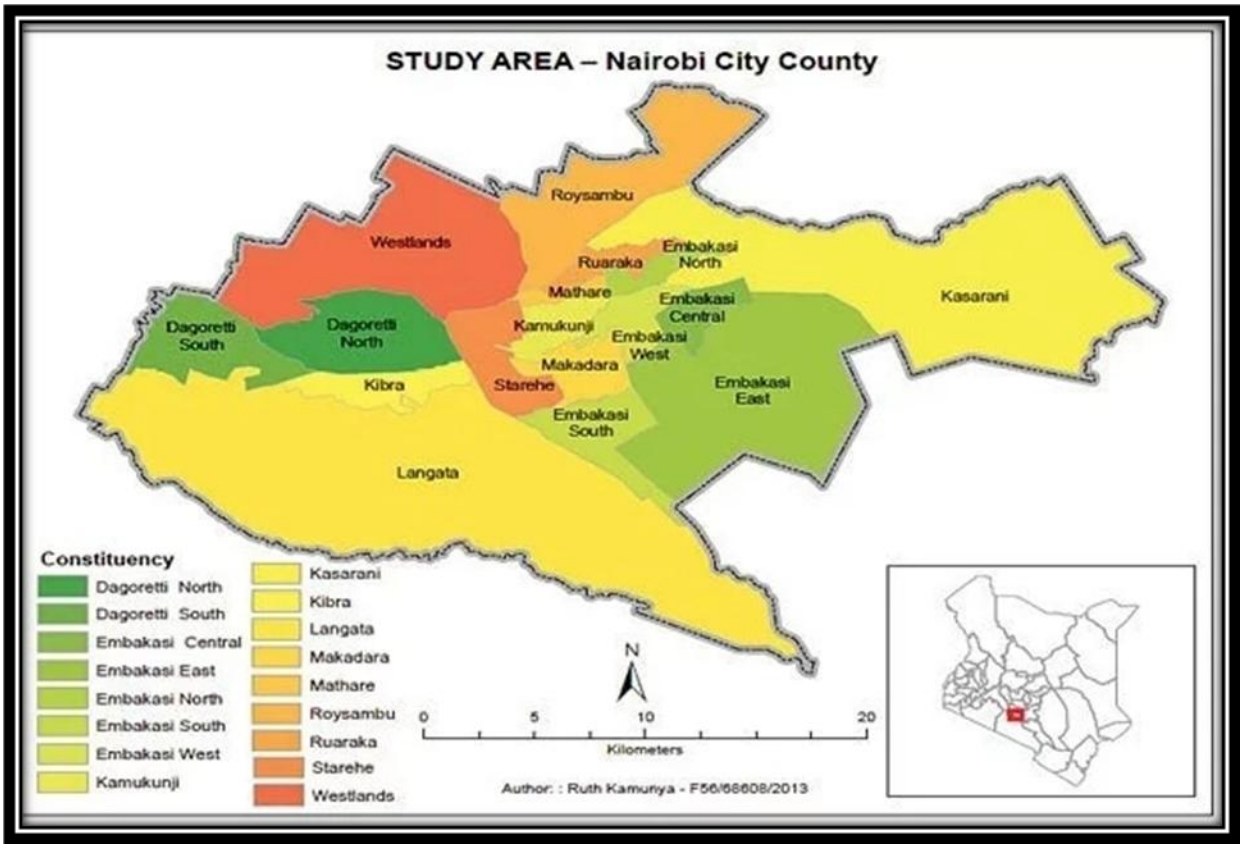
E9. Why did you give the baby the foods? (Tick all applicable responses)

☐ 1- Baby gets hungry ☐ 2- Mother not producing enough milk
☐ 3-Advised by relatives/friends ☐ 4-Advised by health care providers
☐ 5-Advised by TBA ☐ 6-To sooth stomach pain ☐ 7-Other (specify)……

E10. Breastfeeding status of the baby (**to be determined from the information given above based on the previous 24 hours and the definitions below)**

☐1-Exclusive breastfeeding ☐ 2-Predominant breastfeeding
☐ 3-Partly breastfed ☐ 4-non-breastfed

Appendix IV: Map of Nairobi



Map of Nairobi County