EXCLUSIVE BREASTFEEDING AND ITS DETERMINANTS AMONG ADOLESCENT MOTHERS IN KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY, KENYA

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DECLARATION AND APPROVAL

Declaration by Candidate:

This thesis is entirely my original work and has not been presented for a degree in any other university or any other award.

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DEDICATION

I wish to dedicate this thesis to my brother, Anthony Mwangi, and Mother Lydia Nyamwange, whose expression of interest in seeing me be successful academically has remained my driving force.

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ABSTRACT

Background: Exclusive breastfeeding for the first six months is recommended as the optimal way to feed infants (WHO, 2019)

Broad objective: To assess the practice of exclusive breastfeeding and its determinants among adolescent mothers in Kibera informal settlement.

Methods: A cross-sectional descriptive study design was used. A sample of 300 adolescent mothers were interviewed together with 10 Key informants. Multistage Sampling was used to select villages and households with adolescent mothers with infants less than 6 months. A questionnaire was used to collect data through face- to- face interviews with adolescent mothers at household level and a key information interview guide was used to collect the qualitative data from healthcare workers at Carolina for Kibera facility that mainly assists in teenage pregnancies. Quantitative data was coded and entered into SPSS software. Appropriate descriptive statistics was carried out for all variables. The qualitative data obtained were analysed according to major themes raised during the interviews.

Findings: Most (89%) of the adolescent mothers were unemployed and their mean age was 17 years (±SD= 2.19). Over half (64%) attained secondary as the highest academic level. The mean birth weight of the infants was 2.7kgs (±SD=1.13) and 61% were females. The prevalence rate of exclusive breastfeeding was low at 7.3% while the complementary feeding rate was high at 80.7%; almost half (48.7%) of the infants were being given water and complementary foods like milk (30.3%) and diluted porridge (21%). The variables that were significantly ($p<0.05$) associated with exclusive breastfeeding were age ($\chi2=27.992$, $p=0.006$) and knowledge of exclusive breastfeeding ($\chi2=23,836$, $p=0.000$). Most (80%) of the professionals had been trained for 2 years and above while the remaining 20% had already undergone training for one year and were still enrolled for some more training.

Conclusion: The practice of exclusive breastfeeding was low, and many adolescent mothers introduced complementary feeding before six months.

Recommendation: Adolescent mothers require support to practice exclusive breastfeeding. Health workers at the facilities level in Kibera should promote health education, among adolescent mothers on exclusive breastfeeding during antenatal visits.

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ABBREVIATIONS

APHRC	Africa Population and Health Research Center
BF	Breastfeeding
DHS	Demographic and Health Survey
EBF	Exclusive Breast Feeding
FFI	Face to face interview
HW	Health Workers
KDHS	Kenya Demographic and Health Survey
KII	Key Informant Interview
Kg	Kilo grams
LMICs	Low- or Middle-Income Country
MOH	Ministry Of Health
NGO	Non- Governmental Organizations
WHO	World Health Organization

DEFINITION OF TERMS

Exclusive breastfeeding: This is when children start breastfeeding within the first hour of birth and are fed exclusively breast milk, and no other food or liquids, including water, during the first six months of their lives. (WHO, 2023).

Complementary feeding: This means feeding the child with other food forms apart from breast milk. These other foods are known as complementary foods. The period of complementary feeding involves easing the baby into the new foods that the whole family takes. Towards the end of this period, children are normally one and a half to two years old and while all family foods are introduced in place of breast milk, the child may still bite on the breast out of comfort (WHO, 2023).

Social factors: These are indicators that affect an individual's lifestyle. They may include population density, size, structure, family, education level, employment, religion, and wealth. The factors include relevant organizations and people's willingness to collect and collate health information in a way that ensures high-quality data (Jaliff, 2023).

Cultural Factors: This entails a specific group or community's ideologies and values. It is an individual's culture that decides how he/she behaves. These are an individual's values. What relatives and parents teach a child becomes a culture (Betts, 2016).

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

The mother and infant get many health benefits from breastfeeding. Breast milk as every nutrient is needed by an infant in the first six months after birth. It gives protection against diarrhea and common childhood diseases like pneumonia while the child and mother can also get longer-term health benefits like obesity and overweight risk reduction in childhood. Exclusive breastfeeding refers to an infant receiving breast milk only, without any other solid or liquids, except minerals and vitamin drops or oral rehydration (WHO, 2019).

The World Health Organization (WHO), defines an adolescent as any person between 10 and 19 years old. The term “adolescent” is a synonym of “teenager”. Thus, “adolescent pregnancy” is when a 10–19-year-old woman becomes pregnant (WHO, 2019). Global targets have been set by the World Health Assembly to raise the exclusive breastfeeding rate for 0-6 months-old infants to a minimum of 50% in 2012–2025. Adhering to the guidelines is different globally, for the first six months after birth, only 38% of infants are breastfed exclusively (Walters et al., 2016).

The prevalence rate of exclusively breastfeeding in high-income nations like the USA is 19%, in Australia 15%, and in the United Kingdom, 1% exclusively breastfeed for less than six months than middle- and low-income nations (Yu et al., 2020). Although, in middle- and low-income nations, only 37% of infants are breastfed exclusively (Zong et al., 2021).

The exclusive breastfeeding rates in infants below six months old were reported at 44% in South Asia and 20% in Central and Eastern European (North et al., 2022). It is higher

compared to the national average of 43% vs 63% in Ecuador. Breastfeeding practice is a complex problem because the environmental, socio-cultural, biological, and personal factors influence it (Nsiah-Asamoah et al., 2020).

The 2022 Kenya demographic health survey reported an increase of 3% among 15-year-olds to 31% in the 19-year-olds in 15–19-year-old women who have ever been pregnant (KDHS, 2022). In Kenya exclusive breastfeeding (EBF) prevalence estimates in infants below 6 months old have gone up to 60% in 2014 from 32% in 2008.

Kenya had the third-highest rate of teen pregnancy 82 births out of every 1000 births (Save the Children, 2019) implying a notable increment in adolescent pregnancies. An adolescent girl's offspring's health and long- and short-term health outcomes as a mother are significantly and negatively affected by adolescent pregnancy.

1.2 Statement of the Problem

Using the World Health Organization's estimate, approximately 12 million 15–19-year-olds and at least 777,000 girls below 15 years give birth annually in developing regions alone. In Bangladesh, the percentage of children <6 months exclusively breastfed was 65%, but no such data in the case of adolescent mothers' EBF practices even with the young mothers and children being vulnerable because of high rates of early childbearing and marriage and poverty.

For instance, the most recent Kenya Demographic and Health Survey of 2022 mentions that in 2014, the national proportion of children who are exclusively breastfeeding in Kenya stood at 61.4%. Nevertheless, the current rate, in 2022, has declined to 60 percent. This only goes to show that over time, exclusive breastfeeding is gradually being discarded.

This rate is attributable to the fact that inadequate education/empowerment on premarital sexual associations explains why, in Kibera, the largest tribal settlement in Africa, a quarter of the girls fall under the 15-19-year age-group who have already given birth. Hence early pregnancies lead to an estimated 30% of school dropout for girls in Kibera (Patrick et al., 2013).

Findings of a study reported that around 41% of adolescent girls in Nairobi's informal settlements have experienced pregnancy, with nearly half of these pregnancies being unintended. Many public health facilities in these slums lack both skilled personnel and essential equipment necessary for providing high-quality maternal and child health services. In the facilities that do exist, perinatal mental health often fails to be a priority due to other urgent health issues demanding attention. Moreover, existing policies on mental health and adolescent sexual and reproductive health in Kenya generally overlook maternal mental health. As a result, the mental health and overall well-being of these teenage mothers are frequently at risk (Kitiyo et al., 2020).

From the statistics reported, this might fuel adverse health consequences amongst adolescent mothers and increased child mortality and child malnutrition. There are no studies on the practice of Exclusive Breastfeeding amongst this vulnerable age group balancing the challenges of motherhood and other social pressures.

1.3 General Objective

To assess the practice of exclusive breastfeeding, and its determinants among adolescent mothers in Kibera informal settlement.

1.3.1 Specific objectives

1. To establish the prevalence of exclusive among adolescent mothers.
2. To determine the socio-demographic characteristics of exclusive breastfeeding among adolescent mothers.
3. To describe the cultural determinants of exclusive breastfeeding among adolescent mothers.
4. To assess the influence of media and parents or guardians on the practice of exclusive breastfeeding among adolescent mothers.

1.4 Research Question

1. What is the prevalence of exclusive among adolescent mothers?
2. What were the socio-demographic characteristics of exclusive breastfeeding among adolescent mothers?
3. What were the cultural determinants of exclusive breastfeeding among adolescent mothers?
4. What was the influence of media and parents/guardians on exclusive breastfeeding among adolescent mothers?

1.5 Justification

This study is important in the sense that it examines the nature, determinants, and trends of EBFB among adolescent mothers in informal settlements, which is one of the populations that practice it least and has the least resources to support it. Data shows that the observed communities have a high rate of unwanted pregnancies, and minimal available and quality maternal services, thus the need to understand the determinants of breastfeeding practices among these young mothers. It is for this reason that it is important for practitioners to have

adequate knowledge of these factors so that effective interventions can be designed to enhance healthy dietary practices and good nutrition for infants. Furthermore, this paper elucidates the general problem that there are still many gaps in perinatal mental health care, and the related policies and services are generally underdeveloped. Therefore, by focusing on these areas, the study proposes to work towards producing findings that can help in addressing policy gaps concerning adolescent mothers and the education and support systems that they need in terms of their health.

1.6 Study Significance

The findings will be useful in informing the adolescent mothers in Kibera informal settlement, research and academic institutions like the Ministry of Health, Non-governmental organizations (NGOs), and Policymakers on the determinants of exclusive breastfeeding among adolescent mothers in informal settlements, thereafter take appropriate actions and interventions in ensuring that adolescent mothers know the exclusive breastfeeding benefits for the growth of their children

1.7 Study Limitation

The study was limited to one informal settlement that might not be representative of all adolescent mothers, which was mitigated by ensuring all the questionnaires were administered to randomly sampled participants in that area.

1.8 Assumptions

The respondents answered the interview questions in an honest manner.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The section comprises a review of literature on exclusive breastfeeding among adolescent mothers, a conceptual framework, and the identification and highlighting of knowledge gaps.

2.2 Review of Related Literature

2.2.1 Prevalence of Exclusive Breastfeeding among Adolescent Mothers

According to the Global Breastfeeding Scorecard, breastfeeding rates are lower worldwide. Exclusive breastfeeding is essential for optimal protection of the health of both children and women (Walters et al., 2019). Less than half of newborns are breastfed within one hour after birth, and only 41% of infants under 6 months old are exclusively breastfed significantly below the global target of 70% (UNICEF & WHO, 2019). By the age of two, the breastfeeding rate decreases to 45%, even though breastfeeding continues for at least one year in over two-thirds of mothers. Based on data analysis by UNICEF (2018) of 123 countries, the majority of infants worldwide are breastfed at some point, with 95% having ever received breast milk (Wainaina et al., 2018). However, breastfeeding rates vary significantly between high, middle, and low-income nations. In high-income nations, more than 1 in 2 infants, or 21%, do not receive breast milk, while in middle- and low-income nations, 1 in 25 infants, or 4%, never breastfeed.

In middle- and low-income nations, while a high percentage of infants receive some breast milk, the duration of breastfeeding varies significantly based on the household's wealth status. In the poorest households, nearly 62% of infants are breastfed at 2 years old, in line with the recommendations of the World Health Organization (WHO) and UNICEF,

compared to 41% in the wealthiest households. Disparities are pronounced in West and Central Africa, where 26% of infants in affluent households are breastfed at 2 years old, contrasting with 63% in the poorest households. Conversely, in Central Asia and Eastern Europe, the gap is narrower, with both the poorest and wealthiest households exhibiting low breastfeeding rates at 2 years: 31% and 23%, respectively (Njeru, 2019).

According to a journal article on "Breastfeeding and Human Milk Use" published in 2012, there are disproportionately low rates of breastfeeding among adolescent mothers (Meek et al., 2022). National data indicates that while 80% of women above 30 years old initiate breastfeeding, only 60% of mothers below 20 years do so. Furthermore, at 6 months, 50% of older women continue to breastfeed compared to only 20% of younger women.

In a research study conducted in Ecuador, it was found that a high proportion of adolescent mothers, 98.7%, initiated breastfeeding within the first few days after giving birth. However, the continuation of exclusive breastfeeding (EBF) declined over time. While 88.0% of mothers were able to maintain EBF for the first month, this rate decreased to 80.8% by the third month and further dropped to 62.9% by the sixth month (Njeru, 2019). This decline highlights a significant challenge in sustaining exclusive breastfeeding practices among adolescent mothers, underscoring the need for targeted interventions to support and encourage long-term breastfeeding.

From Bangladesh, various research works have explored various determinants associated with breastfeeding among mothers of different age groups (Hasan et al., 2021). Nevertheless, few investigations were conducted with a focus on breastfeeding among teenage mothers. Some of them include; abuse, violence, absence of a partner’s support, feeding the newborn with what the mother takes, poor or no proper antenatal and postnatal

checkups, no or poor counseling, non-cesarean sections, home delivery, and minimal exposure to mass media (Unicef, 2016). Other studies from rural Bangladesh using the health and demographic surveillance system (HDSS) data and other sources have indicated the average exclusive breastfeeding was 43%. Nonetheless, these results were not supported by multivariate analyses such that exclusive breastfeeding was not associated with the studied factors (Hasan et al., 2020).

WHO (2016) reported the need for increased efforts aimed at strengthening the improvement of adolescent health and motherhood as well as the health of their off-spring. Research from both high-income countries like Australia and low- and middle-income countries such as India highlights a concerning trend: concerning feeding habits, adolescent mothers are found to practice less exclusive breastfeeding than older mothers as stated by (Wainaina et al., 2018 and Harrison et al., 2024). These studies have revealed the following programmatic and behavioral constraints to effective breastfeeding among adolescent mothers; constraints to health service access, low MSAU, low SES, negative maternal attitudes toward breastfeeding, and other socio- economic disadvantages.

2.2.2 Social Factors Associated with Exclusive Breastfeeding Among Adolescent Mothers

In different African contexts, giving birth is considered an entry mark to adulthood or a social expectation fulfillment (Jochim, 2021). According to Claude et al., teenage parents in most cases bear babies with low birth weight, live in poverty, and are unemployed (Saleh, 2022). The association with social exclusion implies that teenage parents will probably have poor access to social and health support, be in poor health, and get poor health results for themselves and their infants. Whereas some teenagers consider their

pregnancy as fulfilling and positive, others disclose negative effects. Studies show that young parents often receive poor social and health outcomes due to lack of accessibility to proper support and care (WHO, 2016).

Knowledge is a social factor that is a determinant of exclusive breastfeeding, health care professionals and nurses caring for mother-infant dyads ought to have the knowledge and illustrate the required competence in providing evidence-based and consistent breastfeeding data and support before, during, and after delivery (Kitivo et al., 2020). Maternal age is connected to exclusive breastfeeding. An investigation in rural Kenya associated maternal age with breastfeeding practices; EBF was not practiced by lower-aged mothers (Talbert et al., 2020). In addition, older mothers were likely to breastfeed in the Northeastern region of Kenya (Mohamed et al., 2020).

A study in Nairobi by Mututho et al. (2017) indicated that exclusive breastfeeding was more likely practiced by younger mothers. An estimated 74% of adolescent mothers breastfed their infants before giving any formula, according to an article on Turkish Adolescent Mothers' Initiation and Exclusive breastfeeding rates and the associated factors. Mothers who started early breastfeeding had boy infants, delivered vaginally, were educated for breastfeeding, and had planned pregnancies (Kebirungi, 2018). As compared to those mothers who began breastfeeding later than 2 hours, the ones who started earlier had longer total breastfeeding times, had longer EBF times, and frequently did it at night. Early breastfeeding was notably associated with having a boy infant, vaginal delivery, and planned pregnancy. EBF predictors included formula initiation time, frequent breastfeeding at night, postpartum education, planned pregnancy, and age (WHO, 2019).

2.2.3 Cultural Factors Associated with Exclusive Breastfeeding Among Adolescent Mothers

Culture is seen as a strong influence on breastfeeding practices among adolescent mothers. Knowledge-related social beliefs and antecedent practices influence EBF and poor breastfeeding practices (Asamoah et al., 2020). Perceptions and beliefs embraced by culture on human nutrition are key factors that dictate EBF practices (Wainaina et al., 2018).

For instance, there are certain groups of people that deem colostrum as toxic for babies, and fresh milk is only obtained a day three after birth. This results in the use of pre-lacteal feeds; gripe water, glucose, or salt water given to address infant stomach aches which hampers EBF in the process (Njeru, 2019; Kimani-Murage et al., 2021).

Studies have realized that such cultural practices have a toll of affecting young mothers most. For example, in Malawi, the survey established that young mothers aged 25 years and below were less likely to practice EBF and so also the mothers aged 15–24 years in rural Ethiopia due to pre-lacteal feed practices (Salim et al., 2019; Tadesse et al., 2019). In the same way, in the Sukuma ethnic group of Tanzania, it is forbidden for a woman to let her newborn child eat colostrum: the mother may express and feed her baby with some colostrum for 1-2 days and then breastfeed (Wanjohi et al., 2016).

That is why these cultural factors not only alter breastfeeding patterns but also make it important to address iodine deficiencies. The following strategies will inform the development of a targeted intervention to promote EBF by community health workers in areas such as Kibera Self-reporting learning by mothers Self-reporting learning by mothers

Motivational interviewing can be an effective and efficient way of encouraging adolescent mothers in communities such as Kibera to engage in proper EBF.

2.2.4 The Influence of Media on the Practice of Exclusive Breastfeeding

Exclusive breastfeeding is disseminated through Television, Radio, Newspaper, Magazines, New Media, Flairs, Banners, Posters, Word of Mouth, Antenatal classes, and at the time of infant welfare at hospitals. As a way of bringing about the desired behavioral change (Uwalaka et al., 2020).

Social networks, mobile applications for social networking, and technologies have inevitably played an enormous role in changing how information is disseminated and shared (Uwalaka et al., 2020). Social media is defined as any form of communication that is interactive, shareable, and mostly controlled by the users (Wadham et al., 2019).

The more social network sites are adopted the more important it has to be to use it for Health Communication. Since social networks allow following other people, the mothers-to-be, as well as the lactating ones, can see the necessity and the process of EBF. Every person wants to know about the products that can assist them in reaching optimum wellness and health (Cajetan et al., 2021). Along with each other, digital and mainstream media are among the very first avenues of delivery of any health education-related information or any medical advancement/innovation to society (Stellefson et al., 2020).

The effects of the media on their audiences are well documented, and the information volume and category that is delivered in the media can create perceptions of beliefs, attitudes, and perceived norms that, in a reciprocal manner, influence behaviors behaviors (Catalán-Matamoros & Peñafiel-Saiz, 2019).

In another study where they analyzed how social media impacted EBF practice concluded that lactating women require accurate online information on infant feeding, smartphone applications, and Information through Facebook (Galvao et al., 2021). They suggest that breastfeeding advocates should actively employ mass media as a tool in advocating exclusive breastfeeding.

Given that social media is gaining popularity, appropriate use of the media is central to health communication. Social media has the opportunity to assist expectant and lactating mothers in understanding the benefits of exclusive breastfeeding an how to implement it. There are constant expectations to obtain information concerning beneficial medicinal products for the attainment of improved health status and well-being (Catalan- Matamoros et al, 2019). Mainstream and digital media are perhaps some of the most significant pillars in passing information in matters concerning; medical advancement and health awareness to the people. The effects of the media on the target audience are evident, and the type and quantity of information that is disseminated through the media may change the beliefs, attitudes, and perceived norms which would translate into altering behaviors (Catalan-Matamoros et al., 2019).

These social media platforms are also getting popular day by day hence there is a need for it should be used in health communication. Social media may assist the expect and lactating mothers to know the benefits of, and how to achieve exclusive breastfeeding. Individuals continuously look for information on useful patent medicines that would assist them in attaining optimum health standards (Catalán-Matamoros & Peñafiel-Saiz, 2019). Television, newspapers, radio, and magazines are perhaps among the strongest pillars of

information regarding medical advancement and the dissemination of health consciousness among the masses.

Moreover, Tomfohrde and Reinke (2016) in a study that sought to establish the social media trends of breastfeeding mothers also found out that mothers confided in the research that they regularly utilized social media when they were breastfeeding. Self-generated from the study, it was found that in general, Facebook and the other SMs were used for communication, entertainment, and getting advice among other reasons' (Sanchez, 2024). Accordingly, in a research that sought to establish the impact of social media on early breastfeeding, Gavine et al. (2022) found out that lactating mothers require accurate, web-based information on infant feeding, smartphone applications, and information via Facebook. They suggest that breastfeeding supporters should vehemently employ social networking sites to support exclusive breastfeeding.

With regard to mass media influence, Cajetan et al. (2021) noted that radio, television, and other related media have played a critical role in changing the attitudes of the people. In this regard, they stress that media not only broadcast the necessary knowledge about different advancements but also inspire people to obtain more information and use it for changing attitudes, including the exclusive breastfeeding one. In the same regard, the entertainment-communication approach has gradually gained the support of most communication specialists. Enjoyment aspects like songs and dances are included in the media content to enhance the accomplishment of passing on the intended message to the intended audience.

Cajetan et al. (2021) found in their study on broadcast media's impact on maternal health in Ilorin that women predominantly use broadcast media as their main source of

information on maternal health. Among the different media channels, radio proved to be more effective than television for disseminating maternal health messages, with 58.2% of women favoring it. However, maternal health information was mostly shared through discussion shows and health-focused programs, with only 31.4% of women acknowledging that broadcast media positively influenced their attitudes toward maternal health. Despite this, women generally had a positive perception of the maternal health messages delivered through television.

2.2.4.1 The Influence of Parents and Guardians on the Practice of Exclusive Breastfeeding.

Teenage mothers' age and developmental phase imply that they often depend on their mothers or close relatives for support or guidance. Consequently, teenagers get guidance from friends and families. Older family members take up the role of parental extension from the teenagers to the newborns once they are born. Emotional and financial support after giving birth primarily comes from the mother's family once the partner's support has declined. Young mother's feeding choices are greatly affected by support from partners, friends, and family support (Mensah et al., 2017).

According to Nayman (2018) research work titled "Exclusive Breastfeeding Practice and Associated Factors among First-Time Mothers" revealed the result of a cross-sectional exploratory descriptive survey administration indicating that the respondents who reported receipt of support from their spouses and other relatives were 3. 59 more likely to practice exclusive breastfeeding compared to their counterparts who did not report the same. This finding is consistent with previous studies carried out in Motta, Ethiopia, and recognizes

the Husband's pivotal input in family and household decisions, including infant feeding (Tewabe, 2018). In addition, research done in the past reveals that husbands' support can greatly improve the chances of practicing exclusive breastfeeding. However, one study carried out in Nepal showed that mothers who reported their husbands supported them at the time of breastfeeding were ten times more confident than those who reported their husbands did not support them in this regard (Nepali et al., 2019).

A study done in Ghanaian society found that slightly below two-thirds of the mothers practiced EBF for the initial six months of the baby's life. Of respondents who did not practice EBF, 65 percent gave inadequate breast milk as the reason for their decision. Also, one-third of the mothers reported receiving complaints about their breastfeeding practices from their spouses or parents. Nevertheless, comparatively, approximately 58% of the mothers sought assistance from their spouses, parents, other relatives, or health personnel whenever they encountered challenges with EBF (Dadzie et al., 2023). This shows that there is a progressive improvement in the promotion of EBF, and this implies that family and healthcare providers need to support mothers dealing with hurdles faced in practicing EBF.

2.3 Theoretical Framework

The theoretical framework below introduces and describes the theory that explains the determinants of exclusive breastfeeding.

2.3.1 Self Efficacy Theory

The psychological theory of self-efficacy emerged from the work of Albert Bandura. He noticed that something was going on in people's lives that, no one had made clear or

observed systematically before. It was the belief that people could make things happen in their own lives. Bandura theorized that perceived self-efficacy influences what coping behavior is engaged in when one is confronted with stress and challenges and also determines what degree of effort, for what duration of time, will be put forth to achieve one's goals, as well as the duration that these goals would be pursued.

Breastfeeding self-efficacy is a concept borrowed from social cognitive theory and refined by Dennis; it denotes a mother's perception of effectiveness as a breast-feeder and not the outcomes of breastfeeding as such. As suggested by Jones and others in 2020, high breastfeeding self-efficacy helps the mother to overcome difficulties that a mother with low self-efficacy might give up on. Four key sources contribute to breastfeeding self-efficacy: It includes personal successes that the mother has witnessed, seeing other mothers breastfeeding, encouragement from social personalities around the mother as well as signs in the mother's body and emotions. In their study, (Brockway et al., 2020) elaborated that breastfeeding self-efficacy can be a potent predictor of the breastfeeding results at one as well as two months after birth among mothers of full-term infants, which should imply the alterable conditions that can dictate the successful breastfeeding period. However, there is a scant study in respect of employing the Breastfeeding Support and Education Tool (BSET) for mothers of premature babies. Strengthening breastfeeding self-efficacy, thus theoretically linked to our target variables by the proposed interventions which employ feeding self-efficacy theory, could, thus, improve breastfeeding and the general health status of moderate and late preterm babies.

Dennis' breastfeeding self- efficacy theory was formulated in 1999 and was followed by the development of the Breastfeeding Self – Efficacy scale also in the same year (Li et al.,

2022). As we consider how best to practice different interventions to support a woman's ability to meet her breastfeeding goals, this theory examines the enabling and inhibiting parameters that shape a mother's intention and intention-conductive capacity for breastfeeding. The theories regarding breastfeeding self-efficacy reveal that when women get sufficient support and feel efficacious, it becomes easier for the women to achieve the intended goals regarding breastfeeding. Based on these models, it can be seen that beliefs about the ability to effectively perform the behaviors required to breastfeed and perceived support are crucial in the process.

2.4 Conceptual Framework

The study variables used in achieving the research objective are illustrated using the Conceptual framework. The Dependent variable was exclusive breastfeeding which was supported by the independent variables the socio-demographic, Cultural determinants, and the influence of media and parents.

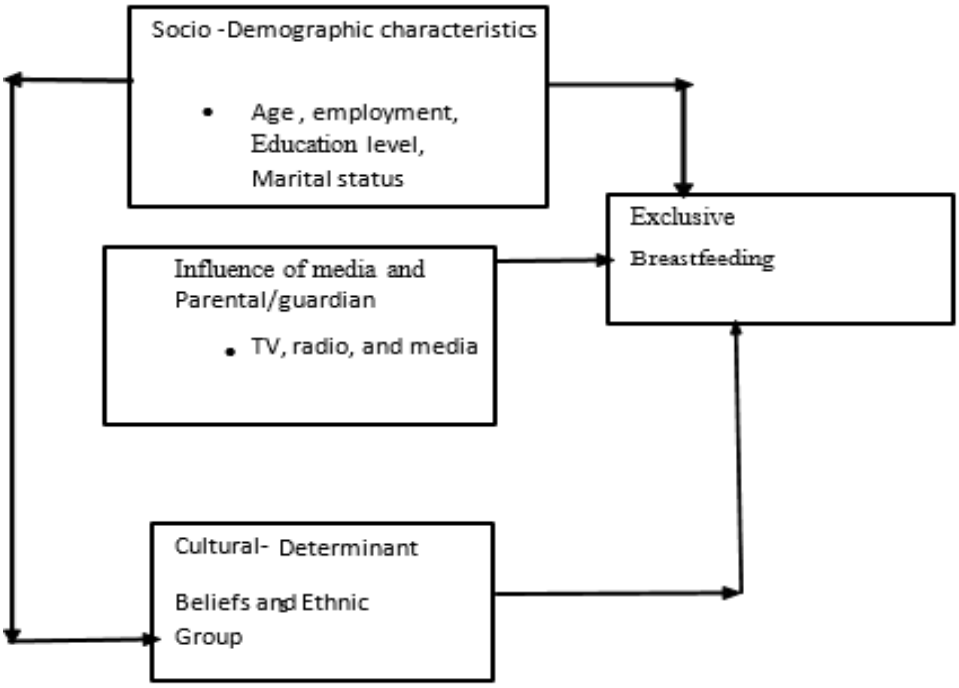

Figure 1.0 Conceptual Framework

2.5 Identification of Knowledge Gap

The study identified knowledge gaps regarding exclusive breastfeeding, cultural factors, and social factors among adolescent mothers, as few studies have investigated the determinants of exclusive breastfeeding in this population.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter presents the study methodology: study design, location, targeted group, sampling, data tools, and ethical issues.

3.2 Research Design

A cross-sectional research design was used to enable the simultaneous analysis of multiple variables, while a mixed-method approach was utilized. Qualitative data, focusing on Key Informant Interviews (KIIs), and quantitative data from households were collected. Both qualitative and quantitative approaches were utilized during data collection, evaluation, and presentation. The qualitative data complemented and triangulated the quantitative results.

3.3 Location of Study

This study was undertaken in Kibera which is the largest slum in Africa in Sarangombe ward Gatwekera village, because it has a high number of adolescents residing in that area Kibera has 5 administrative wards with a total estimated population of 193,322. (District Health Information Software, 2020).

The Socioeconomic status of the community members in that area is of low income who constitutes 55% of the sub-county population which has led to high unemployment rates to be high (Ren et al., 2020).

The majority of women, Men, and children living in slum do not have basic services like food, running water, and electricity. According to the Kenya Demographic and Health

Survey 2022, pregnant women aged 15-24 in Kibera are estimated at 6,573 whereby 21% are young female adults.

3.4 Target Population

This study targeted adolescent mothers up to 19 years old to find out if they were practicing exclusive breastfeeding. The study excluded adolescent mothers who had children less than six months and were sick.

3.5 Sampling

3.5.1 Sampling Procedure

Multistage sampling was employed to select villages with adolescent mothers exclusively breastfeeding. A list of households with adolescent mothers having infants under 6 months was provided by Community Health Volunteers from 5 wards in Kibera, and a random sample was taken. The target population was defined, resulting in a sample size of 358 households, which were randomly numbered by marking the doors. Out of the 358 households, only 300 adolescent mothers responded to the survey. The remaining households had sick children, and some did not complete the survey as requested.

The data was collected from one household to another and if from the selected household the mother was absent a call back was to be done once the mother was present. The study area was in the Kibera informal settlement which was purposively sampled because it is the biggest slum in Nairobi and is divided into 5 wards.

The Key Informant Interviews (KIIs) were done through open-ended questions that produced narrative answers in Carolina for Kibera health Facility that focus mostly on

teenage mothers included the Maternal Child Health nurse, Nutritionists, and Maternal Child health providers. The key informants were guided with questions that focused on the socio-demographic characteristics, cultural practices, the challenges that they face with the adolescent mothers, and the knowledge they share with adolescent mothers on exclusive breastfeeding. Snowball sampling technique was used to identify the Key informants, three informants were identified by the researcher and included in the study then the researcher relied on those initial participants to help identify additional study participants for the interviews.

3.5.2 Sample Size

The sample size of 358 was determined using EPI info software, with a 95% confidence level and an estimated prevalence of 63% (Price, S.A, et al., 2014). The prevalence rate was utilized to identify the sample size as it was the sole reported study focusing on adolescent mothers in that age group. The research study successfully gathered data from 300 adolescent mothers, while the remaining participants did not meet the eligibility criteria outlined in the study's guidelines.

3.6 Data Collection Instruments

The data used the following tools below-:

Interviewer administered Questionnaires- A guided questionnaire was used to collect the social determinants, cultural determinants, the age infant, the adolescent mother's age, the ethnic group of the respondent, the influence of media and parental guidance towards exclusive breastfeeding

KII-Key Informant Interviews- A guided Key Informant guide collected information from nutritionists, Maternity nurses and maternal health care workers from a health facility in Kibera known as Carolina for Kibera. The interviews gathered information of how many adolescent mothers are practicing exclusive breastfeeding, how many adolescent mothers have delivered in the facility, and also if they offer maternal health trainings to adolescent mothers.

3.6.1 Validity

To make the understanding clear that at the end of your project, the data collected will reflect the variables of the study and to make the research measure what it was intended to measure there are standard methods of data collection used. Closed-ended questions were employed to acquire information from the subjects. The technique of triangulation was applied in a way that similar questions were posed to the respondents in different formats aiming at achieving quality of data. The research assistants who were involved in the study had undergone some training regarding the same. The purpose of the study was fully explained to the respondents so that they would not hold back valuable information.

3.6.2 Reliability

The research instruments were pilot tested in Kibera, Kianda ward to assess their reliability. Pilot testing allows researchers to identify and address any potential issues with the instruments before the main study, ensuring that they function as intended in the actual research environment. By conducting the pilot test in a similar setting to the study area, the reliability of the instruments was evaluated, helping to refine the tools for consistency and accuracy in data collection. This step is crucial in confirming that the instruments will yield reliable results when used in the broader study.

3.7 Data Collection Procedures

The researcher recruited two research assistants with a minimum of a Diploma in their studies. They were required to and be fluent in both English and Kiswahili languages and have had previous experience in nutrition surveys.

Training of the research assistants was conducted for 4 days focusing on completing the questionnaires, interview techniques, research ethics, and questionnaire tracking and storage. This was done using through role plays, demonstrations and lectures and ensured that the COVID-19 protocols were observed strictly.

The study assistants were exposed to a practical experience in interview conduction in the questionnaire pre-testing which was in Kibera Kianda ward in 18 households that have adolescent mothers who have children < 6 months. The investigator recorded the responses and the right advice were given on places of improvement.

Data was collected for two weeks every day. The researcher did a formal self-introductory, participants were given an informed consent form to sign for data collection to take place. KIIs and face-to-face interviews were adopted as the data-gathering techniques.

3.8 Data Analysis and Presentation

Coding, entry into SPSS, and analysis of data from the questionnaires which are the social demographic, economic, cultural factors and influence of the media, infant feeding practices, and parents' indicators was done. Sorting, categorizing and cleaning up were done for the information based on the research variables then saved in password-protected computer. Graphs, bar charts and tables presented the results using percentages,

frequencies and numbers. For categorical variables, Descriptive statistics included, percentages and frequencies and of continuation, dispersion, and central tendency.

Chi square test helped find and ascertain significant relationship with exclusive breastfeeding. Logistic regression ascertained exclusive breastfeeding determinants. Results were displayed as adjusted odds ratio with 95% confidence interval. A $p < 0.05$ was deemed statistically significant.

The qualitative data was transcribed, and the similarities or differences of the data were thematic placed and categorized.

3.9 Ethical Consideration

The initial step in data collection involved obtaining approval from supervisors to proceed with fieldwork. An approval letter was granted by the Ethics Scientific and Research Committee at Amref International University for the study. Clearance was also obtained from NACOSTI through an approval letter to conduct the study.

Permission to conduct research in the study area was granted by the local chief. The researcher obtained consent from participants by explaining the study's purpose, nature, risks, benefits, expected duration, and procedures.

Confidentiality and privacy rights were explained to adolescent mothers with infants under 6 months, the potential participants.

The researcher and respondent reviewed and discussed the consent, allowing time for questions and consultation. For participants who could not read or comprehend, the researcher read the consent form aloud, and a thumbprint was used for enrollment if they agreed. The study was voluntary and presented no harm to the child or mother. Information

was not obtained through coercion or intimidation, and privacy and confidentiality of data were ensured. Participants consented before the study, and their identities were kept anonymous. Filled questionnaires were filed and securely stored until the final submission of the thesis.

CHAPTER 4: RESULTS

4.1 Introduction

The study findings organized in line with specific objectives are presented.

4.2 Section A: Socio Demographic Characteristics

Out of the 300 respondents, the study found that the mean adolescent mothers' age was 17.66 (±2.19) years ranging from 14 to 19 years. The highest level of education attained was secondary at 64% and a few (1.67%) attained college level. The majority (89%) of the adolescent mothers were unemployed nearly all were Christians (94.33%). Table 2.0 presents a detailed description of the adolescent mothers' socio-demographic characteristics.

Table 1.0 Socio Demographic characteristics of Adolescent mothers

Variables	N=300 (total) Frequency	Percentage
Age (years)		
14–16	34	11.33
17–19	266	88.67
Mean 17.666 S.D = 2.19		
Education Level		
Primary	102	34
Secondary	192	64
College	6	1.67
Marital Status		
Single	121	40.33
Married	179	59.67
Occupation		
Casual Worker	26	8.6
Student	7	2.3
Unemployed	267	89
Religion		
Muslim	15	5
Christian	283	94.33
Other religions	2	1.0

A total of 49 mothers with children between 7 and 12 months old were interviewed. The mothers had an average age of 28.4 years (±4.8 years), and the children were, on average, 8.9 months old (±3.604 months). Of the employed mothers, 30.4% (96) worked in government jobs. Additionally, 89.5% of the participants had completed at least secondary education.

4.2 Demographic Characteristics of Infants

Nearly all (93%) of the adolescent mothers reported that they were first-time mothers, with females forming the majority (61%) of infants. The mean age of the infants was 5.29 months (±1.19) ranging from 1 month to 6 months 42.3% of the infants weighed between 2.5 kilograms to 3.0 kilograms which represent underweight, 50.6 % were born with normal weight ranging between 3.1 kilograms to 4.0 kilograms.

Table 2.0 Demographic characteristics of infants

Variable	Frequency (N=300)	Percentage
Gender		
Male	117	39
Female	183	61
Age (Months)		
1Month	3	1
2Months	10	3.3
3Months	21	7.0
4Months	28	9.3
5Months	40	13.3
6Months	198	66.0
Mean = 5.29		
S.D = 1.19		
Weights in Kilograms		
2.5kg-3.0kg	121	42.3
3.1kg-4.0kg	152	50.6
4.1kg-5.0kg	27	9
Mean =2.7		
S.D 1.13		

4.3 The Place of Delivery and Delivery Mode of the Adolescent Mothers

Almost all 99.67% of the mothers delivered in a health facility 0.33% delivered at home, 78.67% through normal delivery, and some got assisted and the rest were through cesarean section.

Table 3.0 Place of delivery and delivery mode of the adolescent mothers

Variable		
Place of delivery	**Frequency**	**Percentage**
Health facility	299	99.67
Home	1	0.33
Mode of Delivery		
Normal	236	78.67
Caesarean	64	21.33

Section B: Prevalence of exclusive feeding and Complementary feeding practices

4.3 Infant Breastfeeding Practices

Nearly all 93% of the interviewed adolescent mothers breastfed their infants, 87% were currently breastfeeding and more than half 62.3% initiated it within one hour post-delivery and the remaining percentage delayed the process. Cesarean section 17.6% and delayed

milk secretion 81.7% were the primary reasons why initiating breastfeeding was delayed. Table 4.4 presents the details below.

Table 4.0 Place of delivery and delivery mode of the adolescent mothers

Variables	N=300	Frequency	Percentage
Child Ever Breastfed			
Yes		264	88
No		36	12
Breastfeeding currently			
Yes		261	87
No		39	13
Time Breastfeeding was first initiated			
Immediately after delivery		187	62.3
Within 1 hour		84	28
2-3 hours		29	9.6
Reason for Delay			
Caesarean Section		53	17.6
The infant was Sick		0	0
Delayed milk Secretion		245	81.7
Mother was sick		2	0.7

4.4 Exclusive and Complementary Feeding Practices

Nearly all 95.3% of the infants did not receive pre-lacteal feeds immediately after birth. While 53.7% admitted that they gave food supplements while breastfeeding.

Table 5.0 Infant Feeding Practices

Variables	Frequency	Percentage
Food given immediately after birth		
Yes	14	4.7
No	286	95.3
Giving Food supplements		
Yes	161	53.7
No	109	36.3
Food Supplement given		
Water	146	48.7
Dilute porridge	63	21
Milk	91	30.3
Who influenced the supplement?		
Parents/Guardians	133	44.3
Media (TV and radio)		
Friends	164	54.7

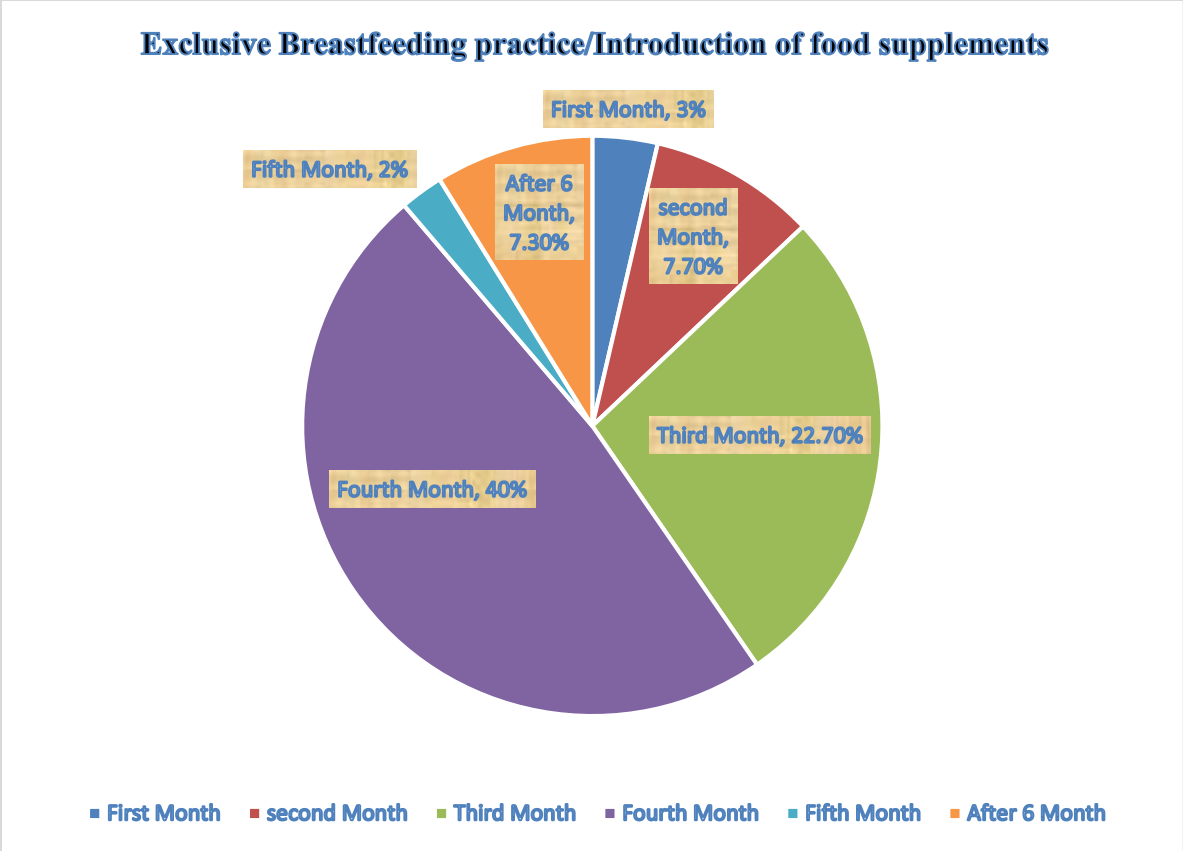

Figure 2.0 Exclusive breastfeeding practices for six months

The percentage of adolescent mothers that practiced exclusive breastfeeding was very low at 7.3% meaning that they introduced other feeds before 6 months, the fifth month 2% of the adolescent mothers introduced food supplements, in the first month 3%, the second month 7.70%, and the third month 22.70%.

Figure 2.0 shows the details of how the adolescent mothers practiced exclusive breastfeeding

4.5 Reasons for Food giving Supplement

Figure 3.0 shows the reasons for introducing supplements were; illness of the infant 3.7%., illness of the mother 2.7%, sore nipples 3.3%, and insufficient milk 90%. The most common reason given was insufficient milk 90.3% among the adolescent mothers.

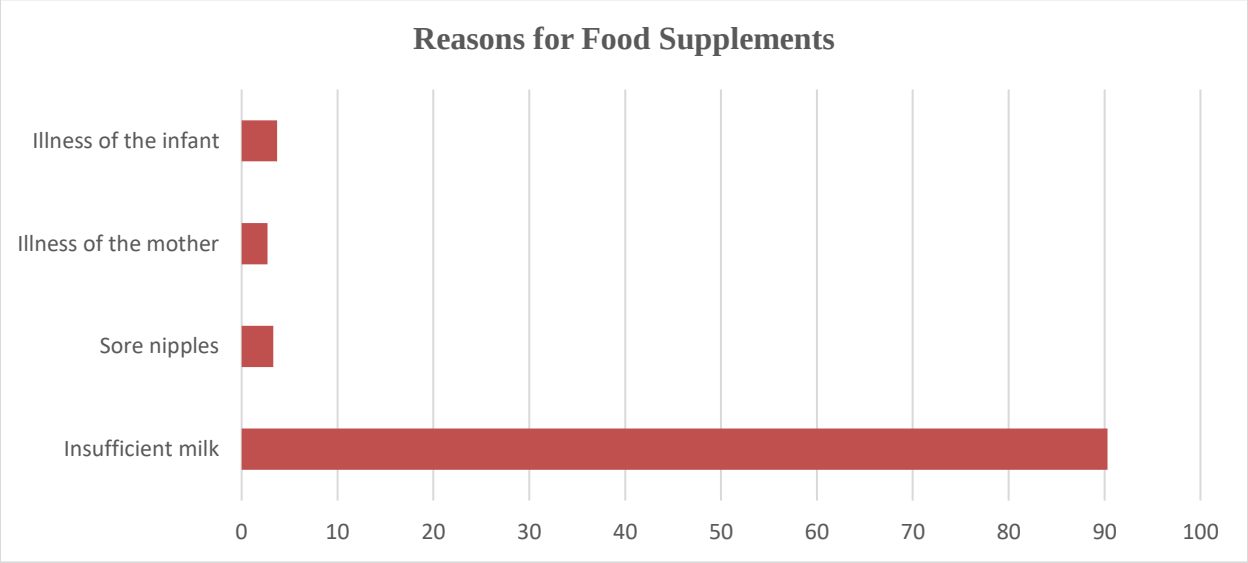

Figure 3.0 Reasons for Giving Food Supplements

4.6 Cultural Determinants on Exclusive Breastfeeding among Adolescent Mothers

4.6.1 Ethnic Background of Adolescent and the Practice of Tribe on Exclusive Breastfeeding

The study established that 44.6% of the adolescent mothers did not mention their ethnic background, 7% stated that they were Kikuyus, 13.3% were Abagusi, 12.7% were Luhya, and 22.3% Luo.

The ethnic groups among the adolescent mothers influenced the practice of exclusive breastfeeding because the adolescent mothers had different beliefs considering the practice of exclusive breastfeeding.

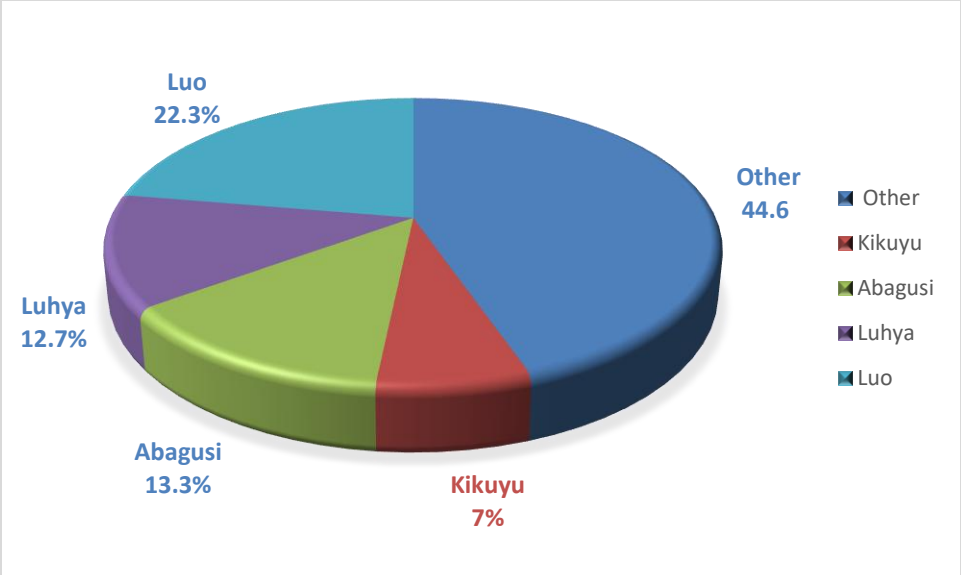

Figure 4.0 Percentage of Tribe on Exclusive breastfeeding among adolescent mothers.

4.7 Family Influence on Exclusive Breastfeeding among Adolescent Mothers

The study showed that 40% of adolescent mothers were influenced to practice exclusive breastfeeding by health workers, 16.3% by their own decision, 14% by the mother, 13.6% by husbands, and the rest by media and social marketing.

It is undeniable that a good number of both urban and rural citizens depend on new media for information dissemination and adopting new behaviors. Information concerning exclusive breastfeeding is likely to spread so fast in the new media through the following platforms: Facebook, WhatsApp chat rooms, video conferencing, and sharing interactivity on YouTube for behavior exchange. This contrasts with the less effective utilization of traditional media channels like television, radio, newspapers, and magazines, which are predominantly utilized in urban areas.

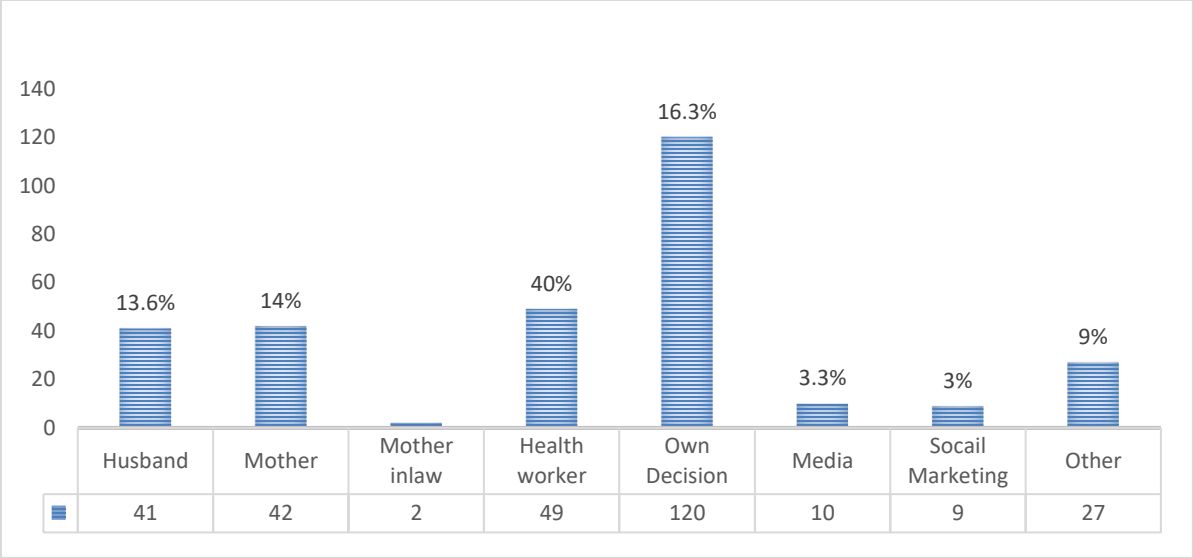

Figure 5.0 Influence on Exclusive Breastfeeding among adolescent mothers

Findings on Key Informant Interviews

The 7.3% of the adolescent mothers that practiced exclusive breastfeeding was also supported through the key informant interview below.

Maternal Child Health Training

The findings of the key informants' interview conducted in Carolina for Kibera on the selected key informants who were the Maternal Child Health nurse, Nutritionists, and Maternal Child health providers, confirmed that they had undergone Maternal, Newborn, and Child Health training. Most of the professionals had been trained for 2 years and above while a few had already undergone training for one year and were still enrolled for some more training. The findings reported that in the facility the health workers especially the maternal child health nurses usually have health education with the mothers who deliver in their facilities, especially the adolescent mothers.

K[1] *"We usually have 3 health education sessions with our young mothers, we educate them on the importance of good hygiene, delivery procedures and postnatal checkups. We usually encourage and allow them to come with their parents so that they guide them on areas that they cannot understand".*

K[2] "*Once the mother has delivered, every 3 hours we keep reminding them to breastfeed the child because some of them keep forgetting. Every day they have training sessions on how to hold the child until they are discharged from the hospital".*

Exclusive Breastfeeding Practices

The respondents had the following ideas.

K[1]"*We as the Nutritionists in this facility ensure we educate the young mothers who deliver in our facility on the importance of exclusive breastfeeding whereby they need to practice it for six months without introducing any other foods, most of them tend not to follow the instructions that is why the rate of exclusive breastfeeding in most slum areas especially Kibera is very low but never the less we keep encouraging them".*

K[2] "*Hygiene is also key when practicing exclusive breastfeeding, but you find the young mothers in this area their hygiene level is very poor which can lead to infectious diseases to the child and also to the mother. We as health workers, personally I ensure once I have sessions with them I educate them on the importance of practicing good hygiene so that the child and the mother can be safe".*

Beliefs

A common belief among the adolescent mothers is that they believe that breastfeeding for a long duration will make their breasts sag which will make them look unattractive.

"For some, the more they breastfeed, the more they lose weight or the more they breastfeed the baby the more the breasts sag/flatten so they stop breastfeeding the baby".

Colostrum

K[1] Most of the key informants reported that feeding colostrum to infants is highly recommended to feed the infant immediately after birth. One of the Maternal health nurses during the interview reported that during her training sessions, one of the adolescent mothers told her that *"Yellowish milk is considered dirty in their ethnic community and it's not healthy for the baby".*

K[2] "*In Sarangombe ward, there are many tribes. You find these young mothers don't know the difference between yellow milk and white milk because most of them stay with their parents or grandparents when the mother delivers you find some parents of the young mothers pushing the daughter who has delivered not to give the colostrum because some cultures believe that it can make the baby sick and die. Its a major challenge to us but with the training session that we usually have with them some tend to accept while few tend not to adhere*".

Knowledge on Exclusive Breastfeeding

One of the maternal health workers who was a nutritionist stated that, *"majority of the young mothers have heard of exclusive breastfeeding from health facilities despite them*

having that knowledge they end up not practicing neither following the instructions that we guide them with, it's a bit of a challenge but we make sure we do follow ups when they come for the clinic checkups".

From this response, we can infer that while the majority of young mothers are aware of the concept of exclusive breastfeeding, having received information about it from health facilities, there is a significant gap between their knowledge and practice. Despite being informed, many do not adhere to the guidelines provided by healthcare professionals. This suggests that awareness alone is not sufficient to ensure the implementation of exclusive breastfeeding practices. It highlights the need for continuous support, follow-ups, and perhaps additional interventions that address the barriers these mothers face in applying the knowledge they have gained. The challenge lies in translating knowledge into consistent practice, which may require more personalized and sustained efforts from healthcare providers.

Influence

K[1]"*Most of the young girls who give birth in our facility mostly stay with their parents because you find they have not completed school. You find the parents have more influence on them because some of them are below 18 years so making decisions on some things is very difficult and that influences they was the young mother with interact with the child and how they will practice EBF".*

K[2] "*You find among these young mothers there is peer pressure among themselves you find some of them educating each other through finding some information online especially radio, one of the adolescent mothers told me that they have created a WhatsApp group*

where they support each other once they have challenges and are scared to come for the checkup".

CHAPTER 5: DISCUSSIONS

5.1 Introduction

This chapter presents the results and discussion of the study, providing an in-depth analysis of the data collected. This chapter interprets the findings in relation to the research objectives, highlighting significant patterns, relationships, and trends. The discussion will contextualize the results within the broader literature, comparing and contrasting them with previous studies, and exploring the implications of the findings. This chapter aims to draw meaningful conclusions that address the research questions and offer insights for future research and practical applications.

5.2 Discussion of Results

5.2.1 Exclusive Breastfeeding Practices

The study findings show that a significant majority of adolescent mothers (80.7%) engaged in complementary breastfeeding, while only a small fraction (7.3%) adhered to exclusive breastfeeding, a rate significantly lower than Kenya's national average of 60%. The data also highlighted that most of the adolescent mothers (88%) had breastfed their infants at some point, supporting the World Health Organization's (WHO) stance that breastfeeding is essential for a child's long-term health and contributes to reduced costs for families, health systems, and governments (WHO, 2020).

However, 37.6% of the mothers did not start breastfeeding immediately after childbirth. The primary reasons for this delay included cesarean sections (17.6%) and delayed milk secretion (81.7%). These results align with a study from Ethiopia, which found that

cesarean deliveries negatively impact the early initiation of breastfeeding (Gedefaw et al., 2020).

5.2.2 Socio-Demographic of Adolescent Mothers

The study findings stated that age and the adolescent mother's education level were notably associated with EBF. The majority 64% of the adolescent mothers attended secondary school as their highest level of education; the research discovered that mothers' education determines the EBF practice in Kibera. There is more possibility of EBF if teenage mothers have better education. The results agree with other studies done in Indonesia on school-going girls stating that there was1.203 times the possibility of EBF for tertiary education graduate mothers, 1.177 times the chance for high school graduate mothers, 1.203 times the possibilities for junior high school graduate mothers and 1.167 times chance for elementary school graduate mothers compared to those who did not have any academic record. Other variables like residence, child's age, mother's employment status, and age became influencing predictors (Laksonoet al., 2021).

The study findings also stated that the socio characteristic of the adolescent mothers was a major determinant in practicing exclusive breastfeeding whereby 64% of the adolescent mothers attended secondary as their highest level of education which led most of them not practicing EBF because they had insufficient information on exclusive breastfeeding.

This is in agreement with research findings done from the key informant interviews among the health workers on their opinion of challenges faced by adolescent mothers on EBF most of the participants indicated that most adolescent mothers were still attending school and

having no time with their infants which leads them to initiate dilute porridge, water, and cow's milk to their infants who are less than six months.

5.2.3 Cultural and Religious Determinants on Exclusive Breastfeeding

Cultural variation especially with the tribes in Kenya can impact access to education, health, and support, all factors affecting the breastfeeding duration. The findings stated that less than half 44.6% of the adolescent mothers did not mention their ethnic background while the rest did. During the Key Informant Interviews as data was being collected one of the health workers stated that it is believed strongly in other ethnic communities, particularly the Luhya and Luo that if a woman is in extramarital affairs with a man who is not the father of the baby, her milk becomes unclean. If the mother goes on breastfeeding while in the relationship, it is perceived as a curse or bad omen "chira" and might result in the baby's death.

Hence, some mothers do not breastfeed anymore if they are in such a situation until a cleansing ritual is performed. However, this does not have a direct association with marital faithfulness or promiscuity with non-breastfeeding. In other cultures' traditional beliefs state that if a mother has lost a baby who is still suckling, she should not breastfeed at all; believing that the dead spirits had poisoned the breast milk. Some perceive that, if a mother is widowed and instead of the lower jaw the child begins teething in the upper jaw, she should discontinue breastfeeding (Falegbe, 2023).

The findings of the study also reported that Muslims who responded to this study practiced exclusive breastfeeding owing to their strong belief in the Quran and Prophet Mohamed who encourages nursing mothers to breastfeed their kids till they become 2 years old. When

breastfeeding, each suckle she makes, she receives one of the Ismail children's emancipating rewards; when the weaning time comes an angel will say: "Go on with the act [of breastfeeding], for you have been forgiven." The Prophet (S.A.W) said: "If it were not for hurting their husbands, no pregnant, wet-nursing and compassionate woman who perform prayers, would enter Hellfire". Findings from the key informant interviews that targeted the health workers also led to an understanding of the same among Muslim adolescent mothers.

5.2.4 The Influence of Media (TV & Radio) and Parents/Guardians on the Practice of Exclusive and Complementary Breastfeeding

The success of breastfeeding depends on the support of the people around the adolescent mother. The study findings indicated that the adolescent mothers received support for breastfeeding from Health workers, Media, relatives, and Friends. But, not for exclusive breast milk since the family equally suggested early breast milk substitution complementary feeding or pre-lacteal feeding.

Mothers respect health workers as they strongly influence infant feeding, but their role is challenged by contradictory social belief systems and norms in assisting mothers to do the recommended breastfeeding. Exclusive breastfeeding is influenced by early breastfeeding initiation, exposure to breastfeeding counseling, and maternal health care access.

From the study findings 40% of the Health workers positively influenced the practice of EBF among adolescent mothers these findings are in agreement with the findings reported from the Key informant interviews conducted in the Carolina For Kenya health facility which indicated that they had at least 2 sessions with the adolescent mothers who delivered

in their facilities for education on baby feeding in the first 6 months mainly on positioning of the baby during breastfeeding, hygiene standards during breastfeeding, frequency of breastfeeding, risks of not breastfeeding, the importance of exclusive breastfeeding and antenatal breastfeeding in general, social loss(bleeding during birth), family planning and the danger signs to look out for.

More than half 54.7% friends to adolescent mothers negatively influenced EBF because they advised the mothers to give supplements to the infants, during the interview one of the mothers stated "*My friend was like, "No, when the child is crying... It's because you don't want to give baby food. He is hungry. Hey, you are all with this stuff for the clinic. Every time the clinic says this, no man, you are going with these things of the clinic… Give the baby food."*

Media (TV and Radio) is a strong influence source on adolescent behaviors, intentions, and attitudes where they can get all the information that they desire to have. Social media combine media and peer effects since they are media forms created by adolescents. Millions of adolescents are linked to each other online through pages like Facebook, Twitter, and Instagram.

The study findings reported that media 3.3% has a low negative influence on adolescent mothers in Kibera which disagrees with a study finding in the USA which explored breastfeeding mothers' usage of Social Media Groups. The study indicated that breastfeeding mothers can be impacted positively by social media in ways catalyzing a shift in how women get health information should be restarted. Upcoming studies should look at how social media groups can be used by organizations and care professionals in positively influencing behavior, knowledge, and attitudes on breastfeeding to increase the

EBF period and lessen the stigmas and barriers linked to breastfeeding, resulting in quality of life for mother-infant dyads, both mental and physical health results (Kara, 2018).

CHAPTER 6: SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter entails the summary, conclusion and recommendation of the study

6.2 Summary

The study highlights a concerningly low rate of exclusive breastfeeding (EBF) among adolescent mothers in Kibera, with most opting for complementary feeding, contrary to expectations based on previous research. The prevalence of EBF in this group was significantly lower than that reported among the general population of Kenyan mothers. This finding suggests the need for further research with larger and more representative samples of adolescent mothers to explore and verify the reasons behind the unexpectedly low EBF rates.

In terms of socio-demographic factors, the study found that most adolescent mothers in Kibera had attained secondary education as their highest academic level. This level of education appeared to influence their understanding and practice of exclusive breastfeeding, as many lacked sufficient knowledge about EBF. Even among those who were aware of its importance, the practice was often undermined by external influences, including pressures from friends, media, parents, and cultural beliefs.

Cultural factors were identified as significant barriers to exclusive breastfeeding, with many adolescent mothers feeling compelled to mix-feed their babies due to traditional practices. Family members often pressured them to introduce supplements, based on the belief that breast milk alone is insufficient for proper infant growth.

The study also noted the significant impact of media, parents, friends, and relatives on the breastfeeding practices of adolescent mothers. Many young mothers were influenced by advice from these sources to introduce other foods while breastfeeding, which contradicts the recommended practice of exclusive breastfeeding for the first six months of an infant's life. This highlights the need for targeted education and support to counteract these influences and promote better adherence to exclusive breastfeeding guidelines.

6.3 Conclusion

The study drew the following conclusions:

The study concludes that the prevalence of exclusive breastfeeding (EBF) among adolescent mothers in Kibera is notably low, with the majority opting for complementary feeding practices. This finding is particularly concerning given the recognized benefits of exclusive breastfeeding for both infants and mothers. The low rate of EBF among this demographic suggests that adolescent mothers face significant barriers to adhering to recommended breastfeeding practices.

Key factors contributing to this issue include limited knowledge and understanding of EBF, cultural beliefs that discourage exclusive breastfeeding, and the influence of external sources such as media, family, and friends. Despite having some level of education, many adolescent mothers are not fully informed about the importance of EBF, and those who are aware often struggle to implement it due to conflicting advice and societal pressures.

These findings underscore the need for more comprehensive and targeted interventions aimed at educating and supporting adolescent mothers in Kibera. Efforts should focus on addressing cultural misconceptions, enhancing the role of health education, and providing ongoing support through healthcare services. By doing so, it may be possible to improve EBF rates and, consequently, the health outcomes for both mothers and their infants. Further research is recommended to explore these issues in greater depth and to develop strategies that can be scaled to other similar contexts.

6.4 Recommendations

1. The health department of Kibera should identify and encourage adolescent mothers on the importance of exclusive breastfeeding practices to increase the rate of exclusive breastfeeding.
2. Adolescent mothers should be encouraged and supported by the health workers in the health facilities to breastfeed their infants within the first hour of delivery, on-demand, and until six months old.
3. The medical director, county government, and nongovernmental institutions that deal with child health to enhance knowledge of EBF by creating awareness within the community, particularly among adolescent mothers.
4. Adolescent mothers attending post and ante-natal clinics are to be issued brochures that are clear and simple to comprehend addressing the issues of breastfeeding problems, negative attitudes, and cultural beliefs with solutions.

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APPENDICES

APPENDIX I: WORK PLAN

NO	Activity	Date	Responsibility	Objective
1.	Problem identification	February 2021	Researcher and supervisor	Commencement of proposal writing
2.	Proposal writing	April to May 2021	Researcher and supervisor	Seek approval for data collection
3.	Data Collection	July	Researcher	For data analysis
4.	Data Analysis	August to September	Researcher	To come up with finding and
5.	Thesis and Publication	September	Researcher and supervisor	To come up with a draft
6.	Submission for marking	October	Researcher	To come up with the final copy for project defense
7.	Defense	November	Researcher	

APPENDIX II: INFORMED CONSENT

BACKGROUND

My name is Jacqueline Njuguna a public health student in Amref International University conducting research on determinants of exclusive breastfeeding among adolescent mothers in Kibera informal settlement. The purpose of your participation in this research is to help the researcher to collect data on what is affecting breastfeeding on adolescent mothers.

You were selected to participate in this study since you are the targeted group. The collection of data will be done within a period of one to two weeks.

PROCEDURES

If you agree to take part, these will happen: you will be asked questions from the questionnaire and also you will suggest your opinions and thoughts during the process. The questions will only take 30minutes of your time. Your participation is completely voluntary and you don't have to respond to every question. You may also stop at any given time you may wish to stop.

RISKS AND BENEFITS

I will do my best to safe guard your data by not sharing the responses with anyone outside the study. Your identity will be kept anonymous or address on the questionnaire there will be no risks of personality identifying any respondent in my results analyzed.

You will have no direct benefit or remuneration, neither in cash nor in kind, for this interview. There may, however, be indirect benefits, as the information obtained is intended to help improve the situation and help students, Amref International University

and future urban health projects and activities in Kibera and similar other urban communities in or beyond Kenya.

RIGHT NOT TO PARTICIPATE AND WITHDRAW

Taking part in the study is voluntary and you can decide against or for your taking part

PRINCIPLE OF COMPENSATION

You will not be paid for helping us or agreeing to take part in this interview.

Contact persons

You may contact Amref International University about your questions or concerns with this study. Or you can contact the Principal investigator-;

Mobile No: 0713193051

Amref International University Fax: +254 20 606340

P.O Box 30125-00100

Nairobi, Kenya

If you agree to participate in this study, please indicate your details below

Thank you for your co-operation

Participant's Name_____

Signature_____

Date_____

Name of the Researcher_____

Signature_____

Date_____

CERTIFICATE OF CONSENT

"I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to participate in this study."

Print name of Subject	
Signature of Subject	
DD/MM/YYYY	

If illiterate, mentally, physically and visually impaired

"I have witnessed the accurate reading of the Consent Form to the potential study subject, and the individual has had the opportunity to ask questions; I confirm that the individual has given consent freely."

Print Name of Subject	
Thumb/Foot print of Subject	
Signature of Witness	
DD/MM/YYYY	

STATEMENT BY THE RESEARCHER/PERSON TAKING CONSENT

"I confirm that the study subject was given an opportunity to ask questions about the study, and all the questions asked by the study subject have been answered correctly and to the best of my ability; I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily."

A copy of this Informed Consent Form has been given to the study subject.

Print Name of researcher/person taking the consent	
Signature of researcher/person taking the consent	
DD/MM/YYYY	

APPENDIX **III: INTERVIEWER ADMINISTERED QUESTIONNAIRES**

SOCIO-DEMOGRAPHIC AND ECONOMIC DETERMINANTS OF EXCLUSIVE BREASTFEEDING

Information of the mother

1. Your age

Years…….

2. Marital status

- Widow
- Divorced
- Cohabiting
- Single
- Married

3. Highest academic qualification

- College and above
- secondary school
- Primary school
- No formal education

4. Occupation

- Business
- Student
- Civil Employment

- None

Others, state……

Do you take the infant with you If working away from home?

- No
- Yes

6. Number of children

- One
- More (specify)……

INFORMATION OF THE INFANTS

7. Age..... (Months)

8. Gender

- Female
- Male

9. Weight of child at birth ……/ kg

10. Place of delivery?

- Home
- Health facility/ Hospital
- Others, state……

11. Delivery mode?

- Normal delivery
- Caesarean section
- Assisted delivery

12. Who helped you deliver?

- Relatives
- Midwife
- Health worker
- Others (specify)

INFANT FEEDING PRACTICES

13. Is this your first, second or third baby? (If 1st proceed to question.17)

state …….

14. If not your first, was the older child breastfed? ……

- No
-
- Yes

15. If yes, state the duration? ……. Months/days

16). If not, why?

- Going back to work
- Infant refusing to breastfeed
- Breast milk was not enough
- Others

17. Has this child ever been breastfed?

- Yes
- No (If no. go to question. 22)

18. When did you initiate breastfeeding after birth?

- Immediately after delivery
- Within 1 hour
- 2-3 hours 4) Days (mention) ……

19. If delayed >1 hour, state the reason

- Caesarean section
- Infant was sick
- Mother was sick
- Delayed milk secretion
- Others (Mention)…….

20. Are you currently breastfeeding the child?

- Yes
- No

21. If the infant is breastfeeding, are giving any liquid or solid such as juice/water?

- No
- Yes

22. Was anything given to the infant to eat prior to commencing breastfeeding?

- No
- Yes

23. If yes, specify?

- Water
- Dilute porridge
- Milk
- Others (specify)…….

24. Who gave you advice to give the infant the fluid/food?

- Friends
- Grandmother
- My own decision
- Others (state)……

25. Give reasons for giving the food prior to breastfeeding

- Illness of the child
- Illness of the mother
- Sore nipples
- Insufficient milk
- Others (specify) …….

26. When did you give drinks/food including water to the infant?

- Less than 1 month
- 1 to 3 months

- 4 to 5 months
- 6 months

27. If not breastfeeding currently, state the age when you stopped breastfeeding him/her...……..months

28. State the reason why you stopped

- The milk was not enough
- Work away from home
- Breast problems
- Others (Specify) …….

INFLUENCE OF MEDIA AND PARENTAL/GUARDIANS ON THE PRACTICE OF EXCLUSIVE AND GENERAL BREASTFEEDING

29. Who influenced your feeding practice decision? (Answers can be more than one)

- Husband/spouse
- My mother
- Mother-in-law
- Health worker
- My own decision
- Media(TV & Radio)
- Social marketing of milk substitute
- Others (Mention) ……. ……..

30. Did you attend Ante-Natal Clinic during pregnancy? (If no go proceed to no. 32)

- Yes
- No

31. Were you talked to regarding breastfeeding?

- Yes
- No

32. Which information were you given regarding EBF?

- Benefits of exclusive breastfeeding
- Positioning of the infant
- Management of breast problem
- Expression of breast milk
- Others (mention)……

33. Have you ever heard about EBF? (If no proceed to 36).

- No
-
- Yes

34. If yes, which place did you obtain it from?

- Health workers

- Media (TV, radio and Social media)
- Relatives
- Others (specify)……

35. Were you shown how to breastfeed?

- Yes
- No

36. Who showed you?

- Health workers
- Relatives
- Others (specify)……

37. Were you shown how attach your child to your breast?

- Yes
- No

38. If yes, by who?

- Health workers
- Relatives
- Others (specify)……

THE CULTURAL DETERMINANTS OF EXCLUSIVE BREASTFEEDING AMONG ADOLESCENT MOTHERS

39. Which ethnic background are you from?

40. Which religion are you from

- Christian
- Muslim
- Hindu
- Buddhism
- Others

41. After birth, Breast milk should be the first feed to an infant.

- Yes
- No

42. The infant should be put to the breast after >1 hour for the mother to rest

- Yes
- No

43. The infant should be fed the colostrum/first yellowish milk (if no explain why)

- Yes
- No

……

……

……

44. Do you believe breast milk alone can sustain the infant for 6months?

- Yes
- No

45. The infant is protected from illnesses through breastfeeding

- Yes
- No

46. When the mother is away, the infant should be given expressed breast

- No
- Yes

47. Exclusive Breastfeeding prevents the mother from becoming pregnant

- Yes
- No

48. State the liquids or foods given to an infant in your culture - starting birth to 6 months

- Porridge
- Cow's milk
- Mashed foods
- Boiled Herbs
- Others (specify)……

49. State the factors encouraging adolescent mothers to practice EBF for six months?

50. Why do some adolescent mothers decide not to exclusively breastfeed?

51. What are some of the challenges that adolescent mothers face during practicing exclusive Breastfeeding?

KEY INFORMANT INTERVIEW GUIDE

Date of the interview…….

Sex……

Health facility……...

Profession…….

1. Have you undergone Maternal, Newborn, and Child Health (MNCH) training? If yes, when?
2. How many adolescent mothers have given birth in your facility this year? Demographic this finding was further confirmed
3. Sessions of infant feeding health education (FHE) given to adolescent mothers on exclusive and general breastfeeding antenatal? This was also confirmed/ they must be integrated
4. Sessions of infant feeding health education do you give to adolescent mothers during the first 6 months?
5. In your own opinion, state the challenges adolescent mothers experience on EBF that may result to non-compliance?
6. What / who mostly influences the adolescent on the practice of exclusive breastfeeding?
7. What are the cultural practices that prevent the adolescent mothers from practicing exclusive breastfeeding?
8. Are there policies that support adolescent mothers during the motherhood experience?

APPENDIX IV: MAP OF KIBERA VILLAGES

Amref Health Africa, Kenya

INVOICE

Invoice No SINV493

Invoice Date 14 October, 2021

TO AMREF INTERNATIONAL UNIVERSITY **Customer Code** A0004

NAIROBI **Our Ref**

LANGATA ROAD **Date of Service** 14 October, 2021

,

Customer Reference: Invoice SINV493 Protocol Number: P1087-2021

Title: EXCLUSIVE BREASTFEEDING AND ITS DETERMINANTS AMONGADOLESCENT MOTHERS IN KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY, KENYA.

Principal Investigator:

Jacqueline Njuguna Cost

Centre: Postgraduate Studies

PROTOCOL NUMBER: P1087-2021

Description	
ESRC Review - Protocol Number: P1087-2021	

Total for Invoice: USD

ALL CREDIT PAYMENT TERMS ARE STRICTLY 30 DAYS FROM INVOICE DATE

Bank Details:

For Telegraphic Transfer:

Standard Chartered Bank

P.O. Box: 30003, Nairobi, 00100

02082,Upper Hill

Beneficiary: **Amref Health Africa**

Bank Code: **02082 ,Upper Hill**

For transfer - 8708003408900 USD

For transfer - 0108003408900 KES

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
SCIENCE.TECHNOLOGY & INNOVATION

Ref No: **722705**

Date of Issue: **04/March/2022**

RESEARCH LICENSE

This is to Certify that Ms.. Jacqueline Waruinu Niuguna of Amref International University, has been licensed to conduct rese in Nairobi on the topic: EXCLUSIVE BREASTFEEDING AND ITS DETERMINANTS AMONG ADOLESCENT MOTHER KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY, KENYA for the period ending : 04/March/2023.

License No:**NACOSTI/P/22/16032**

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